DRAFT

Biological Resources Policy Update and Oak Resources Management Plan Environmental Impact Report

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CHAPTER 1
EXECUTIVE SUMMARY

In accordance with California Environmental Quality Act (CEQA) Guidelines, the following executive summary is an overview of the proposed project and its associated environmental consequences. This summary includes the proposed project's impacts, mitigation measures, areas of controversy, and project alternatives for the proposed project, which includes amendments to the El Dorado County (County) General Plan and adoption of an Oak Resources Management Plan.

1.1 PROJECT OVERVIEW AND BRIEF DESCRIPTION

The proposed project consists of amendments to the County's General Plan, development of a management plan for the County's oak resources and adoption of the Oak Resources Conservation Ordinance. The proposed General Plan revisions are intended to establish a program for County-wide management of impacts to biological resources and mitigation for those impacts. The General Plan Biological Resources Policy Update, Oak Resources Management Plan (ORMP), and Oak Resources Conservation Ordinance (proposed project) would not directly impact the environment. Instead, it would alter the way by which the County regulates and mitigates future projects that may impact the area's biological resources. The proposed project includes proposed amendments to several General Plan objectives, policies, and implementation measures to address the County's need for a clear, defensible, feasible, and reasonable approach to managing biological resource impacts, including impacts to oak trees and oak woodland resources. The ORMP identifies specific requirements for evaluation and mitigation of impacts to oak woodlands, oak trees, and Heritage Trees (individual native oak trees with trunk diameters measuring 36-inches and greater).

Project Location

The proposed amendments to General Plan objectives, policies, and implementation measures would be applicable to development projects throughout the unincorporated areas of the County. The ORMP requirements would apply to development projects at or below 4,000 feet above sea level, which is the upper elevational threshold for oak woodlands. The proposed project would not affect incorporated areas, such as Placerville and South Lake Tahoe, nor would it affect areas under federal jurisdiction, such as Tahoe National Forest. The County of El Dorado encompasses approximately 1,800 square miles that begins at the eastern edge of Sacramento County and stretches to the Nevada state line in South Lake Tahoe.

General Plan

The proposed project would amend the General Plan Biological Resources' policies, objectives, and implementation measures. These amendments would establish a program for managing the County's biological resources impacts and create a clear, defensible, feasible, and reasonable approach for such impacts. This program is identified under proposed Policy 7.4.2.8, which would establish a comprehensive Biological Resources Mitigation Program to govern evaluation, impact assessment, and mitigation for biological resources within the County with the objective of conserving:

1. Habitats that support special-status species;
2. Aquatic environments including streams, rivers, and lakes;
3. Wetland and riparian habitat;
4. Important habitat for migratory deer herds; and
5. Large expanses of native vegetation.

It is anticipated that under the proposed General Plan Biological Resources policies, applicants for development projects within the County that require a discretionary permit would be required to submit to the County a Biological Resource Technical Report that meets the requirements of General Plan Policy 7.4.2.8, determine the area of impact to each habitat type supported at the project site, and mitigate impacts through preservation and creation of vegetation communities to ensure that the current range and distribution of special-status species within the County are maintained. Where off-site mitigation is required, mitigation locations meeting the criteria in Policy 7.4.2.8.D (Habitat Protection) would be acquired.

Oak Resources Management Plan

The proposed project also proposes adoption of the ORMP, which would function as the oak resources component of the County's biological resources mitigation program, as identified in the proposed amendments to General Plan Policy 7.4.2.8. The ORMP identifies:

- Standards for oak woodland and native oak tree impact determination;
- Mechanisms to mitigate oak woodland and native oak tree impacts;
- Technical report submittal requirements, minimum qualifications for technical report preparation;
- Mitigation monitoring and reporting requirements; and
- Projects or actions exempt from mitigation requirements.

The ORMP also establishes an in-lieu fee payment option for impacts to oak woodlands and native oak trees, identifies Priority Conservation Areas where oak woodland conservation efforts may be focused, and outlines minimum standards for identification of oak woodland conservation areas outside the Priority Conservation Areas. Requirements for monitoring and maintenance of conserved oak woodland areas and identification of allowable uses within conserved oak woodland areas are also included in the ORMP.

An Oak Resources Conservation Ordinance that incorporates the standards outlined in the ORMP will be considered in conjunction with adoption of the ORMP. It includes definitions, descriptions of the types of projects that would be exempt from the mitigation requirements – consistent with the ORMP, requirements and procedures for issuance of oak tree and /oak woodland removal permits, and provisions for enforcement and monitoring.

1.2 PROJECT OBJECTIVES

General Plan Policy Revisions

- Develop biological resource policies that are self-implementing and do not need further clarification, interpretation, or policy determination.
- Clearly define what resources are covered and the types of development activities affected by the policies.
- Streamline the County's environmental review process related to biological resources by describing mitigation options that are clearly defined to govern evaluation, impact assessment, and mitigation for biological resources within the County.
- Establish policies that comply with state and federal law and are defensible.

Oak Resources Management Plan

- Adopt an Oak Resources Management Plan to define mitigation requirements for impacts to oak woodlands, individual native oak trees, and Heritage Trees, and to outline the County's strategy for oak resource management and conservation.
- Adopt an Oak Resources Management Plan that complies with Implementation Measure CO-P and constitutes the oak portion of the County's Biological Resources Mitigation Program (General Plan Policy 7.4.2.8).
- Establish a plan for voluntary conservation that landowners, the County, and others can use to seek grants and cost-sharing from state and federal programs for oak woodland conservation in El Dorado County.

1.3 AREAS OF KNOWN CONTROVERSY AND ISSUES RAISED

Section 15123 (b)(2) of the (CEQA Guidelines (14 CCR 15000 et seq.) requires the executive summary of an environmental impact report (EIR) to disclose areas of controversy known to the lead agency that have been raised by the agencies and the public. The County circulated a Notice of Preparation (NOP) on July 17, 2015 for a 30-day public review period to solicit agency and public comments on the scope and environmental analysis to be included in the EIR. A scoping meeting on the content of the EIR was held at the County Planning Commission meeting on August 13, 2015, during which seven persons spoke on the content of the EIR. The County received a total of 18 comment letters on the NOP by the August 17, 2015 comment deadline. To reflect revisions to the draft ORMP, the County issued a revised NOP on November 23, 2015 for a 30-day review period. The County received five additional comment letters on the revised NOP by the December 23, 2015 comment deadline. Copies of the NOP, revised NOP, Initial Study, comments on both the NOP and revised NOP, and a summary of the comments received at the scoping meeting are included in Appendix A.

The following concerns were raised in the responses to the NOP and at the public scoping meeting for this EIR:

- The lack of mandatory oak resource retention standards within the draft policies and ORMP
- Potential for habitat fragmentation and adverse effects on wildlife movement
- Potential for the proposed policy revisions to reduce protection for endangered and threatened species
- Potential for the proposed project to result in adverse impacts to biological habitats and wildlife
- Insufficient mitigation strategies and concerns with proposed exemptions included in the ORMP
- Elimination of the Plant and Wildlife Technical Advisory Committee (PAWTAC)
- Unclear definitions and language included in the ORMP and revised policies
- Loss of oak trees and oak woodlands as a scenic resource
- Consideration of greenhouse gas emission requirements concerning the conversion of oak woodlands to other land uses.
- Potential for inconsistencies with the General Plan and failure to consider the Targeted General Plan Amendment and Zoning Ordinance Update (TGPA-ZOU) project
- The degree to which the proposed project would contribute to increased levels of development, and associated increases in traffic, noise, air pollution, and greenhouse gas emissions
- Resource topics improperly focused out of the EIR

1.4 PROJECT ALTERNATIVES

EIR Chapter 10, Alternatives, was prepared in accordance with Section 15126.6 of the CEQA Guidelines. The alternatives analyzed in this EIR in addition to the proposed project are:

Alternative 1: No Project/No General Plan Amendment or ORMP. This alternative assumes that the proposed General Plan amendments and ORMP are not adopted, and all future development is evaluated under the existing General Plan policies.

Alternative 2: Minimum Oak Resource Retention Requirement. This alternative assumes that the proposed ORMP is modified to include a minimum oak resource retention requirement applicable to all future development within the County at or below the 4,000-foot elevation.

1.5 INTENDED USE OF THIS EIR

This EIR will be used by the County Board of Supervisors to evaluate the environmental effects of the proposed General Plan Amendments, ORMP and its Implementing Ordinance as part of the Board of Supervisors' deliberations on whether to approve the project. As the project does not include any site-specific development proposals, no additional development permits or approvals are required.

1.6 SUMMARY OF IMPACTS AND MITIGATION MEASURES

Table 1-1
Impact Summary Table

Impact	Significance Before Mitigation	Mitigation	Significance After Mitigation
Land Use and Planning			
LU-1 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.	Less than significant	No mitigation required.	Less than significant
LU-2 Substantially alter or degrade the existing land use character of the County.	Significant and unavoidable	No feasible mitigation.	Significant and unavoidable
LU-3 Create substantial incompatibilities between land uses.	Less than significant	No mitigation required.	Less than significant
Biological Resources			
BIO-1 Result in the loss and fragmentation of wildlife habitat	Significant and unavoidable	MM BIO-1 *Conservation Area Monitoring.* The Biological Resource Mitigation Program developed by the County under Policy 7.4.2.8 shall include requirements for periodic monitoring of preserved lands by individual development project applicants or their designee to assess effectiveness of the Program for protection of special-status and native species. Prior to final approval of an individual development project, the applicant shall demonstrate to the County that they have a comprehensive monitoring strategy in place for preserved lands, and that funding is secured to implement the monitoring strategy in perpetuity.	Significant and unavoidable

Table 1-1
Impact Summary Table

Impact	Significance Before Mitigation	Mitigation	Significance After Mitigation
BIO-2 Have a substantial adverse effect on special-status species	Significant and unavoidable	No feasible mitigation.	Significant and unavoidable
BIO-3 Have a substantial adverse effect on wildlife movement	Significant and unavoidable	No feasible mitigation.	Significant and unavoidable
BIO-4 Result in the removal, degradation, and fragmentation of sensitive habitats	Significant and unavoidable	MM BIO-2 *Require Mitigation for Valley Oak Tree and Valley Oak Woodland Impacts.* The exemptions section of the ORMP and the Oak Resources Conservation Ordinance shall be revised such that no activities shall be exempt from the requirement to mitigate impacts to valley oak woodlands and individual valley oak trees.	Significant and unavoidable
Forestry Resources			
FOR-1 Result in the loss of forest land or conversion of forest land to non-forest use.	Significant and unavoidable	No feasible mitigation.	Significant and unavoidable
FOR-2 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.	Significant and unavoidable	No feasible mitigation.	Significant and unavoidable
Greenhouse Gases			
GHG-1 Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.	Significant and unavoidable	No feasible mitigation.	Significant and unavoidable

Table 1-1
Impact Summary Table

Impact	Significance Before Mitigation	Mitigation	Significance After Mitigation
GHG-2 Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.	No impact	No mitigation required.	No impact
Visual Resources			
VIS-1 Result in the degradation of the quality of scenic vistas and scenic resources	Less than significant	No mitigation required.	Less than significant
VIS-2 Substantially degrade the existing visual character or quality of the area or region	Significant and unavoidable	No feasible mitigation.	Significant and unavoidable

CHAPTER 2
INTRODUCTION

2.1 PROJECT BACKGROUND

The County of El Dorado (County) proposes to adopt specific revisions to biological resource objectives, policies, and implementation measures included in the Conservation and Open Space Element of the County's 2004 General Plan and to adopt an Oak Resources Management Plan (ORMP) and implementing ordinance that revise and update the 2008 Oak Woodlands Management Plan (OWMP). Consistent with direction provided by the County Board of Supervisors (BOS) in September 2012, the General Plan Biological Resources Policy Update and ORMP (proposed project) is proposing to revise policies 7.4.2.8, 7.4.2.9, 7.4.4.4, 7.4.4.5, 7.4.5.1, and 7.4.5.2. Revisions are also proposed to additional objectives and policies within the County's General Plan Conservation and Open Space Element, as listed in Chapter 3, Project Description (and provided in Appendix B). The proposed General Plan revisions are intended to establish a program for County-wide management of impacts to biological resources and mitigation for those impacts.

The proposed ORMP (provided in Appendix C) defines mitigation requirements for impacts to oak woodlands, individual native oak trees, and Heritage Trees, and outlines the County's strategy for oak resource management and conservation. The ORMP is designed to function as the oak resources component of the County's Biological Resources Mitigation Program identified in General Plan Policy 7.4.2.8. To this end, the ORMP identifies:

- Standards for oak woodland and native oak tree impact determination;
- Mechanisms to mitigate oak woodland and native oak tree impacts;
- Technical report submittal requirements and minimum qualifications for technical report preparation;
- Mitigation monitoring and reporting requirements; and
- Projects or actions exempt from mitigation requirements.

The ORMP also establishes an in-lieu fee payment option for impacts to oak woodlands and native oak trees, identifies minimum requirements for oak woodland conservation sites and/or tree replanting, and establishes requirements for mitigation monitoring. An Oak Resources Conservation Ordinance (provided in Appendix D) that incorporates the standards outlined in the ORMP will be considered in conjunction with adoption of the ORMP. The draft ordinance includes definitions, descriptions of the types of projects that would be exempt from the mitigation requirements, requirements and procedures for issuance of oak tree and /oak woodland removal permits, and provisions for enforcement and monitoring.

The proposed General Plan objectives, policies, and implementation measures would be effective throughout the entire County, which encompasses an approximately 1,800- square-mile area in the east-central portion of the state, while the ORMP would be applicable to areas within the County at or below the 4,000-foot elevation.

This environmental impact report (EIR) addresses the potential environmental consequences of revising specific General Plan biological resource objectives, policies, and implementation measures and adopting an ORMP.

2.2 PURPOSE AND INTENDED USE OF THIS EIR

The County has prepared this EIR for the following purposes:

- To satisfy the requirements of the California Environmental Quality Act (CEQA) (California Public Resources Code Section 21000 et seq.), the CEQA Guidelines (14 CCR 15000 et seq.), and the County's procedures for implementing CEQA.
- To inform the general public, the local community, responsible agencies, trustee agencies and other interested public agencies, and the County's decision-making body (Board of Supervisors) regarding the potential significant environmental effects resulting from implementation of the proposed project as well as possible measures to mitigate those significant effects and alternatives to the proposed project.
- To enable the County to consider the environmental consequences when deciding whether to approve the proposed project and the requested discretionary actions necessary to support the project.

In summary, this document is intended to provide County decision makers, other agencies, and the general public with information that enables them to consider the environmental consequences of the proposed project. The document identifies significant or potentially significant environmental effects ("impacts") and ways in which those impacts can be reduced to less-than-significant levels, whether through implementation of mitigation measures adopted by the lead agency or through the implementation of an alternative to the proposed project. In a practical sense, an EIR functions as a method of fact-finding, allowing an applicant, the public, other public agencies, and agency staff an opportunity to collectively review and evaluate baseline conditions and project impacts through a process of full disclosure. Additionally, this EIR provides the primary source of environmental information for the lead agency to consider when exercising any permitting authority or approval power directly related to implementation of this proposed project.

2.3 TYPE OF EIR

The Biological Resource Policy Update and Oak Resources Management Plan EIR is intended to be a program-level document used to analyze the first-tier effects of the Policy Update and the preparation of the ORMP. A Program EIR is prepared for a series of actions that can be characterized as one large project, with each action related as logical parts in the chain of contemplated actions (14 CCR 15168(a)). Typically, such a project involves actions that are closely related geographically (14 CCR 15168(a)(1)), for agency programs (14 CCR 15168(a)(3)), or as individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways (14 CCR 15168(a)(4)). Program EIRs generally analyze broad environmental effects of the program, with the acknowledgment that site-specific environmental review may be required for particular aspects or portions of the program when those aspects are proposed for implementation (14 CCR 15168(a)).

Once the Program EIR is prepared for the proposed project, subsequent (or second-tier) activities within the program must be evaluated to determine whether additional CEQA review is necessary.

If the Program EIR addresses the program's effects as specifically and comprehensively as possible, many subsequent activities could be found to be within the Program EIR scope. If the County determines that a proposed subsequent project would have no additional effect on the environment beyond that which was identified in the Program EIR, and that no new or additional mitigation measures or alternatives are required, then no new environmental documentation is required per CEQA (14 CCR 15168(c)). However, the County would need to make a written finding that the subsequent project is within the scope of the project covered by the Program EIR.

If a subsequent activity would have effects that are not within the scope of the Program EIR, the County would need to prepare a new Initial Study leading to a Negative Declaration, Mitigated Negative Declaration, or an EIR. Subsequent CEQA documents would incorporate by reference the general discussions from this broader Program EIR, primarily concentrating on the issues specific to the action being evaluated.

2.4 LEAD, RESPONSIBLE, AND TRUSTEE AGENCIES

As required by CEQA, this EIR defines lead, responsible, and trustee agencies. The County is the lead agency for the project because it holds principal responsibility for approving the project. A responsible agency is a public agency, other than the lead agency, that has discretionary approval over the project. No responsible agency has been identified for adoption of the updated Biological Resources policies and the ORMP. A trustee agency is defined as a state agency that has jurisdiction by law over natural resources that are held in trust for the people of the state. For

example, the California Department of Fish and Wildlife is a trustee agency with respect to any potential impacts of the project on fish and wildlife resources.

Prior to approving the project, the lead agency is required to certify that the EIR has been completed in compliance with CEQA, the decision-making body reviewed and considered the information in the EIR, and the EIR reflects the independent judgment of the lead agency. The EIR will be reviewed by the County's Community Development Agency, Long Range Planning Division for its recommendation to the County BOS, and will be reviewed by the BOS for certification in accordance with CEQA. Written findings of fact for each significant environmental impact identified in the EIR will be prepared by the lead agency to:

- Determine if the proposed project has been changed to avoid or substantially reduce the magnitude of the impact;
- Find that changes to the proposed project or mitigation measures are within another agency's jurisdiction, and such changes have been or should be adopted by such other agency; or
- Find that specific economic, social, or other considerations make mitigation measures or proposed project alternatives infeasible.

The findings of fact prepared by the lead agency must be based on substantial evidence in the administrative record and must include an explanation that demonstrates that evidence in the record supports the conclusions required by CEQA. The lead agency must also prepare a Statement of Overriding Considerations as part of the project approval process if the decision-making body elects to proceed with a project that would have significant impacts that cannot be mitigated to a less-than-significant level. If required, the statement explains the agency's decision to balance the benefits of the project against the environmental impacts identified as significant and unavoidable consequences of project implementation.

2.5 SCOPE OF THE EIR

The scope of this EIR includes analysis of environmental issues identified as potentially significant in the Notice of Preparation (NOP) and Initial Study (IS), comments on the NOP, the Revised NOP, comments on the revised NOP, and meetings held with the public (see Appendix A for the NOP, IS, and comments received in response to the NOP and revised NOP, including a summary of verbal comments received at the County's EIR scoping session). The IS prepared for the proposed project evaluated all the issue areas identified in the Environmental Checklist (Appendix G of the CEQA Guidelines). The IS is a tool for the lead agency to use in order to determine where the proposed project may result in potentially significant impacts.

It is noted that the proposed project would amend the General Plan biological resources policies and establish requirements for oak resource impact evaluation and mitigation but would not modify the existing General Plan and Zoning designations throughout the County. The land development patterns and associated environmental impacts that would result from buildout of the General Plan are already anticipated regardless of the proposed policies updates and ORMP provisions. As the proposed project would not substantially alter land development patterns or the development standards related to environmental resources other than biological resources and oak trees and woodlands, it would not result in significant impacts to resources such as air quality, noise, transportation and circulation, geology, hydrology/water quality, and public services.

Based on the NOP and revised NOP, and IS, the County found that the proposed project could result in significant impacts in the following issue areas:

- Visual Resources
- Forestry Resources
- Biological Resources
- Greenhouse Gases (focused on the loss of carbon sequestration)
- Land Use and Planning (including agricultural resources)

As discussed further in Chapter 11, Other CEQA Considerations, the analysis in the IS found that the proposed project would have no impacts or less-than-significant impacts in the following resource areas:

- Air Quality
- Cultural Resources
- Geology, Soils, and Seismicity
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation and Circulation
- Utilities and Service Systems

The EIR addresses issue areas that could result in significant impacts in Chapters 5 through 9. Each chapter is divided into four main sections: (1) Environmental Setting, (2) Regulatory Framework, (3) Impacts and (4) Mitigation Measures. The analysis considers impacts at an interim year (2025) and in the cumulative conditions (2035).

This EIR evaluates the direct impacts, reasonably foreseeable indirect impacts, and cumulative impacts resulting from implementation of the proposed project using the most current information available and in accordance with the provisions set forth in CEQA (California Public Resources Code, Section 21000 et seq.) and the CEQA Guidelines (14 CCR 15000 et seq.). In addition, the EIR recommends potentially feasible mitigation measures, where possible, and project alternatives that would reduce or eliminate significant adverse environmental effects.

The alternatives chapter of the EIR (Chapter 10, Alternatives) was prepared in accordance with Section 15126.6 of the CEQA Guidelines. In addition to the proposed project, the following alternatives are analyzed in this EIR:

Alternative 1: No Project/No General Plan Amendment or ORMP. This alternative assumes that the proposed General Plan amendments and ORMP are not adopted and all future development is evaluated under the existing General Plan policies.

Alternative 2: Minimum Oak Resource Retention Requirement. This alternative assumes that the proposed ORMP is modified to include a minimum oak resource retention requirement applicable to all future development within the County at or below the 4,000-foot elevation.

2.6 ENVIRONMENTAL REVIEW PROCESS

This EIR has been prepared to meet all of the substantive and procedural requirements of CEQA. As the lead agency, the County has primary responsibility for conducting the environmental review and approving or denying the project.

As a first step in complying with the procedural requirements of CEQA, the County examined whether or not any aspect of the project, either individually or cumulatively, may cause a significant effect on the environment. For this proposed project, the IS (provided in Appendix B) demonstrated that potentially significant impacts to visual resources or aesthetics, agricultural and forestry resources, biological resources, and land use and planning associated with project implementation could result. Based on the conclusion that potentially significant impacts could occur, the County determined that it is necessary to prepare an EIR to analyze the impacts.

The original NOP was released on July 17, 2015, for a 30-day public review period that closed on August 17, 2015. The County received a total of 18 comment letters including comments from the Central Valley Regional Water Quality Control Board, Governor's Office of Planning

and Research, California Native Plant Society, and 14 individuals. In addition, the County held a public scoping meeting on August 13, 2015, during which seven individuals provided comments. Following consideration of comments on the original NOP and proposed project, the County BOS approved revisions to the draft ORMP. The revised NOP was issued to provide opportunity for interested parties and agencies to submit comments on the scope of the EIR relative to the revisions to the project description, as shown in the revised draft ORMP. The revised NOP was released on November 23, 2015, for a 30-day public review period that closed on December 23, 2015. The County received a total of five comment letters including comments from four individuals. All comments received in response to the original NOP and revised NOP are provided in Appendix A to this Draft EIR. Agencies and interested persons will also have an opportunity to provide public comment during the public review period for the Draft EIR and at public hearings on the proposed project.

As required by CEQA, this Draft EIR will be publicly circulated for a 45-day period for public review and comment. During the comment period, the general public, organizations, and agencies may submit comments to the County on the Draft EIR's accuracy and completeness. Comments must be submitted no later than 5:00 p.m. on August 15, 2016, to the following:

Shawna Purvines, Principal Planner
El Dorado County Community Development Agency, Long Range Planning Division
2850 Fairlane Court
Placerville, California 95667

After the public review period is complete, a Final EIR will be prepared for consideration by the BOS. The Final EIR will include comments on the Draft EIR received during the public review period, including comments received at any public hearings, and responses to those comments, as well as any revisions to the Draft EIR made in response to agency or public comments. The Draft EIR and Final EIR together will compose the complete EIR for the proposed project.

A Planning Commission hearing will be scheduled during the 45-day public review period; this public hearing will provide another opportunity to submit comments on the Draft EIR either verbally or in writing. After preparation of the Final EIR, and in accordance with Section 15080 of the CEQA Guidelines, the EIR will be presented to the BOS to review and certify that the EIR provides an accurate and complete record. Certification of the EIR does not, however, constitute approval of the proposed project but establishes the County's conclusion that the EIR meets the requirements of CEQA. Upon certification of the EIR, the County will make a separate determination as to whether to approve the proposed project.

Additionally, according to CEQA Section 21081.6 (a)(1), for projects in which significant impacts will be lessened or avoided by mitigation measures, the lead agency must prepare a mitigation monitoring and reporting program, to be adopted at the same time the lead agency's

decision-making body makes its "CEQA Findings" addressing the disposition of all significant environmental effects disclosed in an EIR (see 14 CCR 15091). The purpose of the mitigation monitoring and reporting program is to ensure compliance with required mitigation during implementation of the project.

EIR Adequacy

The level of detail contained throughout this EIR is consistent with Section 15151 of the CEQA Guidelines, which states the following:

> An EIR should be prepared with a sufficient degree of analysis to provide decision makers with information which enables them to make a decision which intelligently takes account of the environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection but for adequacy, completeness, and a good faith effort at full disclosure.

2.7 DOCUMENT ORGANIZATION

This EIR has been designed for easy use and reference. To help the reader locate information of particular interest, a brief summary of the contents of each section of the EIR is provided. This EIR includes seven principal parts:

- **Executive Summary (Chapter 1).** Includes a summary of impacts and mitigation measures for the proposed project in a table format.
- **Introduction (Chapter 2).** Provides a brief background description for the proposed project and description of the EIR, including its purpose, intended use, type, scope, and standards for adequacy; identification of lead, responsible, and trustee agencies; a description of the environmental review process; and a summary of how the document is organized.
- **Project Description (Chapter 3).** Includes a discussion of the proposed project history and background, general description of existing environmental conditions within the County; a statement of project objectives; a description of the proposed policy revisions and ORMP content; a summary of the public involvement process conducted for the proposed project; and required entitlements and approvals necessary to enact the proposed project.

- **Methodology and Assumptions (Chapter 4).** Provides a discussion of historic and projected growth patterns, a description of the baseline and cumulative conditions against which the environmental effects of the proposed project are evaluated, and an explanation of the methodology used to identify potential impacts.
- **Environmental Analysis (Chapters 5–9).** Includes a topic-by-topic analysis of baseline environmental conditions without the proposed project and impacts that would or could result from implementation of the proposed project. It also identifies potentially feasible mitigation measures that, if adopted, would reduce the level of significance of environmental impacts. As discussed above, topics included in the analysis are Land Use and Planning, Biological Resources, Forestry Resources, Greenhouse Gases and Visual Resources.
- **Alternatives (Chapter 10).** Includes an assessment of alternative methods for accomplishing most of the basic objectives of the proposed project while avoiding or substantially lessening at least one significant impact of the proposed project. This assessment provides information for decision makers to make a reasoned choice among potentially feasible alternatives based on comparing the impacts of the alternatives to the impacts of the proposed project.
- **Other CEQA Considerations (Chapter 11).** Includes a discussion of additional issues required by CEQA, including significant unavoidable adverse impacts, irreversible environmental changes, energy consumption, growth inducement and cumulative impacts from buildout of the General Plan as well as other reasonably foreseeable projects.
- **References (Chapter 12).** Identifies the author, title, and publication information for each document referenced in support of the EIR analysis.
- **EIR Preparers (Chapter 13).** Identifies the environmental professionals who have contributed to preparation of this EIR.
- **Appendices.** Contains a number of reference items and reports providing support and documentation of the analysis performed in the EIR.

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CHAPTER 3
PROJECT DESCRIPTION

This Project Description defines the existing conditions of the resources covered under the General Plan Biological Resources Policy Update, Oak Resources Management Plan (ORMP), and Oak Resources Conservation Ordinance project (proposed project); identifies project objectives; and provides a general description of the County's environmental characteristics. The description of the project included in this chapter sets forth the project characteristics upon which the evaluation of potential impacts in this draft environmental impact report (EIR) is based.

3.1 PROJECT BACKGROUND AND OVERVIEW

Background

In 2004, the County of El Dorado (County) adopted an updated General Plan and EIR. Biological resource policies included in the adopted 2004 El Dorado County General Plan provide guidance on natural resource management and oak woodlands. Specifically, General Plan Policy 7.4.2.8 anticipated development of an Integrated Natural Resources Management Plan (INRMP) to guide protection of the County's biological resources, including oak woodlands, sensitive habitats, and wildlife. Beginning in September 2006, the County worked to implement Policy 7.4.2.8 by conducting a public workshop process, preparing a work program for development of the INRMP, retaining consultants to prepare the INRMP, and convening two advisory committees (Integrated Natural Resources Management Plan Stakeholders Advisory Committee (ISAC) and Plant and Wildlife Technical Advisory Committee (PAWTAC)). While a resource inventory and various assessment reports prepared by consultants and the advisory committees were accepted by the El Dorado County Board of Supervisors (BOS) as part of the INRMP Phase I process, the County has not initiated the INRMP Phase II process.

The County also prepared an Oak Woodlands Management Plan (OWMP) as an initial and discrete component of the INRMP. The OWMP and its implementing ordinance, adopted in May 2008, provided a mechanism for mitigation of development impacts on oak canopy through payment of an in-lieu fee and subsequent acquisition by the County of oak woodland areas for conservation. General Plan Policy 7.4.4.4 requires that a land development project meet the oak tree canopy retention standards (as identified under Option A of the policy) and replace or conserve off-site oak woodlands at a 1:1 ratio in proportion to the amount of oak canopy lost on site or pay the in-lieu fee at a 2:1 ratio (as described under Option B of the policy).

The County's adoption of the OWMP was challenged on the grounds that the impacts from implementation of the OWMP were not previously addressed in the County's General Plan EIR. The trial court upheld the County's OWMP and ruled in favor of the County. The decision was appealed and the Appellate Court held that the County had not adequately evaluated the

environmental effects of the OWMP as required by the California Environmental Quality Act. The County rescinded the OWMP and its implementing ordinance in September 2012. With no in-lieu fee option currently available (per General Plan Policy 7.4.4.4 Option B), land development projects must meet the retention standards in Option A to be consistent with the General Plan.

On September 24, 2012, the BOS directed County staff to retain consultants to assist the County in the process of considering amendments to General Plan Policies 7.4.2.8, 7.4.2.9, 7.4.4.4, 7.4.4.5, 7.4.5.1, and 7.4.5.2 and their related Implementation Measures, and to prepare an Environmental Impact Report (EIR). As stated in the staff report to the BOS, the effort was undertaken with the goals of "clarify[ing] and refine[ing] the intent and scope of all of those policies, ensur[ing] the consistency of all the related biological policies, consider[ing] changes in state law, and finally harmoniz[ing] the General Plan Policies."

For additional discussion of the County's past efforts in preparing and implementing the 2004 General Plan, please refer to the May 1, 2014, Draft General Plan Biological Policies Background Memo available on the County's General Plan Biological Policies Update webpage at http://www.edcgov.us/Government/LongRangePlanning/Environmental/BioPolicyUpdate.aspx (See Supporting Documents).

Overview

The County proposes to adopt specific revisions to biological resource objectives, policies, and implementation measures included in the Conservation and Open Space Element of the County's 2004 General Plan and to adopt an ORMP that revises and updates the 2008 OWMP. The Oak Resources Conservation Ordinance is also proposed for adoption to implement the ORMP. The proposed General Plan revisions are intended to establish a program for County-wide management of impacts to biological resources and mitigation for those impacts. Consistent with direction provided by the County BOS in September 2012, the proposed project would revise policies 7.4.2.8, 7.4.2.9, 7.4.4.4, 7.4.4.5, 7.4.5.1, and 7.4.5.2. Revisions are also proposed to additional objectives and policies within the County's General Plan Conservation and Open Space Element, as discussed in greater detail below.

The proposed General Plan objectives, policies, and implementation measures would be effective throughout the entire County, which encompasses an approximately 1,800-square-mile area in the east–central portion of the state, while the ORMP would be applicable to areas within the County at or below the 4,000-foot elevation, which encompasses approximate 872 square miles (560,000 acres).

3.2 PROJECT LOCATION

El Dorado County encompasses approximately 1,800 square miles in east–central California as shown in Figure 3-1, Regional Location Map. The County stretches from Folsom Lake in the west to the California–Nevada state line in the east. Topographically, the County is divided into two zones: the northeast corner of the County is within the Lake Tahoe Basin and the remainder of the County is in the western slope region—the area west of Echo Summit. The Eldorado and Tahoe National Forests cover a vast portion of land in eastern El Dorado County. Elevations within the County range from 850 feet above mean sea level (amsl) in the westernmost portion to over 7,200 feet amsl at some of the higher peaks in the eastern portion of the County, in the Tahoe Basin.

As previously mentioned, the proposed General Plan objectives, policies, and implementation measures would be effective throughout the unincorporated portions of the County, while the ORMP would be applicable to areas within the County at or below the 4,000-foot elevation. The areas within the County boundaries that are not under County jurisdiction, and therefore not subject to regulation by the County through the General Plan and Zoning Ordinance, include: federal lands such as National Forest lands (Eldorado National Forest, Tahoe National Forest, Lake Tahoe Basin Management Unit), Bureau of Land Management lands, Bureau of Reclamation lands (Folsom Lake), state lands at the Marshall Gold Discovery State Historic Park and state parks along the Lake Tahoe shore, tribal lands such as the Shingle Springs Rancheria, and land within the incorporated Cities of Placerville and South Lake Tahoe. Nearly half the land area of the County falls under the jurisdiction of such entities (El Dorado County 2003). The areas in which the proposed General Plan policies and ORMP would be applicable are indicated in Figure 3-2.

The population of the unincorporated area of the County was estimated to be 183,087 in 2014 (U.S. Census Bureau 2015). The County seat is in the incorporated city of Placerville, 45 miles northeast of Sacramento. The City of Placerville's population was estimated by the U.S. Census to be 10,556 in 2014. The City of South Lake Tahoe, with a 2014 population estimate of 21,529, is the largest city in the County.

3.3 PROJECT OBJECTIVES

General Plan Policy Revisions

- Develop biological resource policies that are self-implementing and do not need further clarification, interpretation, or policy determination.
- Clearly define what resources are covered and the types of development activities affected by the policies.

- Streamline the County's environmental review process related to biological resources by describing mitigation options that are clearly defined to govern evaluation, impact assessment, and mitigation for biological resources within the County.
- Establish policies that comply with state and federal law and are defensible and effective.

Oak Resources Management Plan

- Adopt an Oak Resources Management Plan to define mitigation requirements for impacts to oak woodlands, individual native oak trees, and Heritage Trees, and to outline the County's strategy for oak resource management and conservation.
- Adopt an Oak Resources Management Plan that complies with Implementation Measure CO-P and constitutes the oak portion of the County's Biological Resources Mitigation Program (General Plan Policy 7.4.2.8).
- Establish a plan for voluntary conservation that landowners, the County, and others can use to seek grants and cost-sharing from state and federal programs for oak woodland conservation in El Dorado County.

3.4 PROJECT DESCRIPTION

The project does not include any land disturbance or development, and it would not directly increase the County's population or increase demand for public services or utilities. No changes to General Plan land use or zoning designations are proposed. Rather, the project would establish new procedures and requirements for new land development projects and the County's assessment of and mitigation for impacts to biological resources.

General Plan Biological Resources Policy Revisions

The County used this policy update opportunity to evaluate all the biological resource goals, objectives, and policies in the 2004 General Plan, and through this process developed an overall strategy to replace the prior direction on protecting resources and mitigating impacts. The County proposes revisions to several of the General Plan Biological Resources objectives, policies, and implementation measures, as listed in Table 3-1. Through a series of public meetings, the County determined that a mitigation/conservation approach to biological resource policies would be the most appropriate method to meet the County's overall objectives for this update. This approach would retain the County's requirement for adopting an ORMP (previously titled the Oak Woodlands Management Plan, or OWMP) but would eliminate the County's requirement to prepare the INRMP, which had been a key component of the existing General Plan biological resources policies. Instead of the INRMP, the proposed revised Policy 7.4.2.8 would establish a comprehensive Biological

Resources Mitigation Program to govern evaluation, impact assessment, and mitigation for biological resources within the county with the objective of conserving:

1. Habitats that support special-status species;
2. Aquatic environments including streams, rivers, and lakes;
3. Wetland and riparian habitat;
4. Important habitat for migratory deer herds; and
5. Large expanses of native vegetation.

As proposed, revised Policy 7.4.2.8 establishes standards for completion of biological resources technical reports, defines the categories of plant and wildlife species that are considered special-status species, sets minimum ratios for mitigation of impacts to habitats that may support special-status species, and provides criteria for identification of mitigation sites.

It is anticipated that under the proposed General Plan Biological Resources policies, development projects within the County that require discretionary approvals would be required to submit to the County a biological resources technical report that meets the requirements of Policy 7.4.2.8, determine the area of impact to each habitat type supported at the project site, and mitigate impacts through preservation and/or creation to ensure that the current range and distribution of special-status species within the County are maintained. Off-site mitigation sites that are acquired (through conservation easements or in fee title) must meet the criteria in Policy 7.4.2.8.D (Habitat Protection).

The proposed amendments to the General Plan policies, objectives and measures are summarized in Table 3-1, and the full text of the proposed policies are included in Appendix B and available for review on the County's General Plan Biological Policies Update webpage at: http://www.edcgov.us/Government/LongRangePlanning/Environmental/BioPolicyUpdate.aspx

(See documents posted under the Notice of Preparation (NOP) Released July 17, 2015).

Table 3-1
Proposed General Plan Revisions

General Plan Objective/Policy/ Implementation Measure	Changes Made
Objective 7.4.1	Revise to focus on Pine Hill rare plant species
Policy 7.4.1.1	Add "where feasible" following reference to County Code Chapter 130.71
Policy 7.4.1.2	Add "Pine Hill rare plant" before "preserve sites" to clarify which preserves are addressed by this policy
Policy 7.4.1.3	Add "Pine Hill rare plant" before "preserve areas" to clarify which preserves are addressed by this policy

Table 3-1
Proposed General Plan Revisions

General Plan Objective/Policy/ Implementation Measure	Changes Made
Policy 7.4.1.4	Replace "Proposed rare, threatened, or endangered species preserves" with "The Pine Hill Preserves" to clarify which preserves are addressed by this policy
Policy 7.4.1.5	Delete text
Policy 7.4.1.6	Delete text
Policy 7.4.1.7	Moved to Policy 7.4.2.2
Policy 7.4.2.1	Revise language to address coordinating wildlife and vegetation protection programs with appropriate federal and state agencies
Policy 7.4.2.2	Delete policy; replace with prior Policy 7.4.1.7 regarding noxious weeds
Policy 7.4.2.4	Revise text to clarify that active management is not required
Policy 7.4.2.6	Delete policy
Policy 7.4.2.7	Delete policy to remove requirement to maintain the Plant and Wildlife Technical Advisory Committee (PAWTAC), but does not preclude the County from re-convening the PAWTAC when necessary.
Policy 7.4.2.8	Revise to delete the Integrated Natural Resources Management Plan (INRMP) and to include: • Requirement for wildlife movement studies for 4-, 6-, and 8-lane roadway projects • Requirement for a biological resources technical report and establishment of mitigation ratios for special-status biological resources • Identification of criteria for conservation lands • Establish a voluntary database of willing sellers • Biological resources mitigation program • Habitat protection strategy
Policy 7.4.2.9	Revise provisions for lands within the Important Biological Corridor (IBC) overlay to reflect new site-specific requirements
Objective 7.4.3	Incorporate objective into Policy 7.4.2.1
Objective 7.4.4	Consolidate Objective 7.4.4 and 7.4.5 to address oak woodlands and trees together
Policy 7.4.4.2	Revise to reflect the conservation portion of the mitigation/conservation approach
Policy 7.4.4.3	Revise to to encourage retention of contiguous area of forests and oak woodlands
Policy 7.4.4.4	Revise to refer to oak woodland and oak tree mitigation requirements in the Oak Resources Management Plan (ORMP). The Draft ORMP reflects the following revisions to the requirements previously contained in Policy 7.4.4.4: • Use of 'oak woodland' as a measurement • Development of a 2-tiered mitigation approach that incorporates oak woodland mitigation (Policies 7.4.4.4) and oak tree mitigation (including heritage trees (Policy 7.4.5.2). Framework removes necessity for two oak woodland mitigation options (Option A and B) and removes retention standards by incorporating an incentive-based approach for oak woodland impact avoidance. • Replace two oak woodland mitigation options (Option A and B) and retention standards with an incentive-based approach for oak woodland impact avoidance • Identify projects or actions exempt from oak woodland and oak tree mitigation requirements • Add criteria for identifying conservation lands outside of Priority Conservation Areas (PCA)

Table 3-1
Proposed General Plan Revisions

General Plan Objective/Policy/ Implementation Measure	Changes Made
Policy 7.4.4.5	Delete policy; draft ORMP provides requirements for mitigation.
Objective 7.4.5	Merge Objective 7.4.5 with Objective 7.4.4 to address oak woodlands and individual oak trees (including Heritage Trees). Remove 'Vegetation' as non-tree vegetation is addressed in Policy 7.4.2.8.
Policy 7.4.5.1	Remove Policy 7.4.5.1 as it is redundant with Policy 7.4.5.2, which has been merged with Policy 7.4.4.4
Policy 7.4.5.2	Merge Policy 7.4.5.2 with Policy 7.4.4.4 to comprehensively address oak woodlands and oak tree resources in a two-tier framework as identified in the ORMP
Measure CO-L	Revise to reflect changes to Policy 7.4.2.8
Measure CO-M	Delete to reflect changes to Policy 7.4.2.8
Measure CO-N	Delete to reflect changes to Policy 7.4.2.9
Measure CO-P	Revise to reflect changes to Policy 7.4.4.4 and the ORMP
Measure CO-U	Delete to reflect changes to Policy 7.4.2.8

Oak Resources Management Plan

The proposed project also includes adoption of an ORMP that updates and revises the OWMP adopted by the BOS on May 6, 2008 (BOS Agenda 5/6/2008, Item 26, Legistar File: 07-1022). The purpose of the ORMP is to define mitigation requirements for impacts to oak woodlands, individual native oak trees, and Heritage Trees, and to outline the County's strategy for oak resource management and conservation. The ORMP is designed to function as the oak resources component of the County's Biological Resources Mitigation Program identified in General Plan Policy 7.4.2.8. To this end, the ORMP identifies:

- Standards for oak woodland and native oak tree impact determination;
- Mechanisms to mitigate oak woodland and native oak tree impacts;
- Technical report submittal requirements and minimum qualifications for technical report preparation;
- Mitigation monitoring and reporting requirements; and
- Projects or actions exempt from mitigation requirements.

The ORMP also establishes an in-lieu fee payment option for impacts to oak woodlands and native oak trees, identifies Priority Conservation Areas (PCAs) where oak woodland conservation efforts may be focused, and outlines minimum standards for identification of oak woodland conservation areas and/or replanting areas outside the PCAs. Requirements for monitoring and maintenance of conserved oak woodland areas and identification of allowable

uses within conserved oak woodland areas are also included in the ORMP. The ORMP also provides guidance for voluntary oak woodland and oak tree conservation and management efforts by landowners and land managers.

An Oak Resources Conservation Ordinance that incorporates the standards outlined in the ORMP will be considered in conjunction with adoption of the ORMP. The draft Oak Resources Conservation Ordinance is provided in Appendix D. It includes definitions, descriptions of the types of projects that would be exempt from the mitigation requirements – consistent with the ORMP, requirements and procedures for issuance of oak tree and /oak woodland removal permits, and provisions for enforcement and monitoring.

The ORMP is designed to serve multiple purposes. It defines the County's conservation strategy for oak resources and provides a framework for mitigating impacts to oak resources. It also complies with Implementation Measure CO-P and constitutes the oak portion of the County's Biological Resources Mitigation Program described in proposed General Plan Policy 7.4.2.8. Finally, it establishes a plan for voluntary conservation that landowners, the County, and others can use to seek grants and cost-sharing from state and federal programs for oak woodland conservation in El Dorado County.

The proposed ORMP is included in Appendix C and available for review on the County's General Plan Biological Policies Update webpage at: http://www.edcgov.us/Government/LongRangePlanning/Environmental/BioPolicyUpdate.aspx (See documents posted under the Notice of Preparation (NOP) Released November 23, 2015).

3.5 PUBLIC INVOLVEMENT

In 2014 and 2015, 11 public meetings were held to address revisions to the biological resource policies. Public meetings were held before the BOS starting in July 2014 and going through September 2015. At these workshops, the public was invited to submit comments on the proposed revisions to the policy language, the draft ORMP, and the content of the EIR. The public meetings are further summarized below.

Beginning in July 2014, the County held a public meeting before the BOS to outline the broad alternatives for updating the policies. In the fall of 2014, two meetings were held to present and receive comment on four possible approaches to the policy update process. The BOS elected to proceed with a mitigation/conservation approach. In addition, the BOS directed that the OWMP should be updated, relying on the approach, methodology, format, and structure of the existing OWMP to the extent feasible, including re-establishment of the in-lieu fee program.

Between January and March 2015, four public workshops were held to consider ten Decision Points, constituting the components of the mitigation/conservation approach related to oak resources and

other special-status biological resources. The BOS's direction on each of the Decision Points has provided the basis for the proposed draft biological resources policies and ORMP. The draft biological resources policies and draft ORMP were presented for BOS and public review and comment in May 2015. Based on the comments received on the draft policies and draft ORMP, revisions to the policies and ORMP were presented to the BOS and public for review and comment in June 2015. The nexus study and amount of the in-lieu fee was also presented to the BOS in June 2015. Copies of the memos accompanying the presentations to the BOS between July 2014 and June 2015 are included in Appendix E. Staff reports and other presentation materials for these meetings can be found on the County's website at the following link:

http://www.edcgov.us/Government/LongRangePlanning/Environmental/BioPolicyUpdate.aspx.

In addition, the County released a Notice of Preparation (NOP) to solicit public input on the scope of the EIR in July 2015. A scoping meeting on the content of the EIR was held at the County Planning Commission meeting on August 13, 2015, during which seven persons spoke on the content of the EIR. The County received a total of 18 comment letters on the NOP. Due to revisions to the draft ORMP, the County issued a revised NOP in November 2015. The County received five additional comment letters on the revised NOP. Copies of the NOP, revised NOP, Initial Study, comments on both the NOP and revised NOP, and a summary of the comments received at the scoping meeting are included in Appendix A.

Public Involvement Efforts Prior to 2014

Public involvement dates back to 1992 when the Board of Supervisors requested the formation of the El Dorado Rare Plant Technical Advisory Committee (TAC) to recommend resolution of rare-plant issues. The TAC recommended a rare plant preserve system with five preserve units that included three core areas: Salmon Falls, Pine Hill, and Cameron Park units; and two satellite preserves: Penny Lane Ridge and Martel Creek, both largely owned by Bureau of Land Management (BLM). In 1993, the Board adopted four of the proposed rare plant preserve sites. The Cameron Park site was not included in the preserve system due to funding constraints. In 1998, the Board amended the El Dorado County General Plan to include the Cameron Park Ecological Preserve Unit.

Since 2006 through 2013, over 110 publicly noticed meetings were held that discussed the Integrated Natural Resources Management Plan (INRMP) or the Oak Woodland Management Plan (OWMP). Beginning in September 2006, the County worked to implement Policy 7.4.2.8 by retaining consultants to conduct a public workshop process, prepare a work program for development of the INRMP, and to prepare the INRMP, and convene two advisory committees—the Integrated Natural Resources Management Plan Stakeholders Advisory Committee (ISAC) and the Plant and Wildlife Technical Advisory Committee (PAWTAC). The

purpose of the ISAC was to provide recommendations to County staff, the Planning Commission, and the BOS in defining the important habitats of the County and in the creation and implementation of the INRMP. The PAWTAC is a committee that advises the Planning Commission and BOS on plant and wildlife issues and is formed of local experts in the field.

Preparation of the OWMP included public and stakeholder involvement, as well as input and guidance from the OWMP Technical Advisory Committee. Additionally, the County contracted with a consulting firm (EN2 Resources/Pacific Municipal Consultants) to prepare the OWMP. Preparation of the OWMP involved numerous workshops and hearings to address the issues brought forth by these groups.

As noted, several workshops were held so the general public, public agencies, various stakeholders, commission members, and the Board could provide input on the OWMP, including those on September 4, October 26, November 9, November 16, and December 14, 2006, and February 9, February 22, March 22, and April 26, 2007.

In June 2008, a lawsuit was filed challenging the Board of Supervisors approval on May 6, 2008 of the OWMP and its implementing ordinance.

In August 2008, PAWTAC and ISAC began meetings to provide input to staff on tasks and studies needed for a Request for Proposal for INRMP (Policy 7.4.2.8) and Important Biological Corridors (IBC) (Policy 7.4.2.9). Following months of input from the ISAC and PAWTAC, Sierra Ecosystem Associates (SEA) was retained by the County in December 2009 to prepare Phase I of the INRMP. Between December 2009 and 2011, the ISAC and PAWTAC discussed several issues that would influence the INRMP. The monthly ISAC and PAWTAC meetings were facilitated by County staff and SEA and a significant amount of technical information was presented in support of preparation of Phase I of the INRMP (County of El Dorado 2010a, 2010b). The meetings were subject to the Brown Act and were open to the public. Archives of the ISAC and PAWTAC agendas, minutes and support materials are posted on the County website and may be found at the following links:

http://www.edcgov.us/Government/Planning/INRMP_Stakeholders_Advisory_Committee_(ISAC).aspx

http://www.edcgov.us/Government/Planning/Plant_and_Wildlife_Technical_Advisory_Committee_(PAWTAC).aspx#Plant and Wildlife Technical Advisory Committee - Meeting Archives

On September 24, 2012, the Board considered six options for the implementation of Policy 7.4.4.4 which addresses mitigation options for new development projects on parcels with oak woodlands. At the conclusion of the BOS hearing, the Board took action to implement Option 6 which would entail the Board adopting a resolution of intent to amend Policies 7.4.4.4, 7.4.4.5,

and possible amendments to Policies 7.4.5.1, 7.4.5.2, 7.4.2.8 and 7.4.2.9. The Options Report is included as Attachment A to the staff report presented to the Board on September 24, 2012. (See Legistar File: 12-1203, Attachment A-Options Report.)

The Draft General Plan Biological Policies Background Memo prepared by the consultant (Dudek) presented to the Board on July 28, 2014 (See Legistar File: 12-1203, Attachment 5B) contains a timeline of key issues and Board actions associated with the General Plan Policies, the INRMP and OWMP between 1992 and 2012. It also includes a table summarizing key milestones of the OWMP development process and the issues presented to the Board between 2006 and 2008. Also in July 2014, Dudek presented to the BOS four broad policy approaches for meeting the BOS goals relative to the policy update. Each included a public outreach component. In recognition of the significant amount of prior public involvement, the BOS directed that public outreach would occur in the context of Planning Commission and BOS meetings, which included a series of meetings focused on a set of 10 key decision points for developing the proposed policies and ORMP. The county has also conducted additional public outreach as a required component of the CEQA review. A summary of the OWMP process approach options is attached to Legistar File: 12-1203, Attachment 7B – OWMP Process 11-17-14.

All of the information on the workshops, background information, and comments received are available on the County's website at http://www.edcgov.us/Government/LongRangePlanning/Environmental/BioPolicyUpdate.aspx.

3.6 ENTITLEMENTS AND REQUIRED APPROVALS

The El Dorado County BOS will consider the following discretionary actions and approvals in determining whether to adopt the draft Biological Policies Update, ORMP, and implementing ordinance:

- Certification of the EIR
- Approval of amendments to the General Plan Conservation and Open Space Element
- Approval of the ORMP
- Adoption of the Oak Resources Conservation Ordinance

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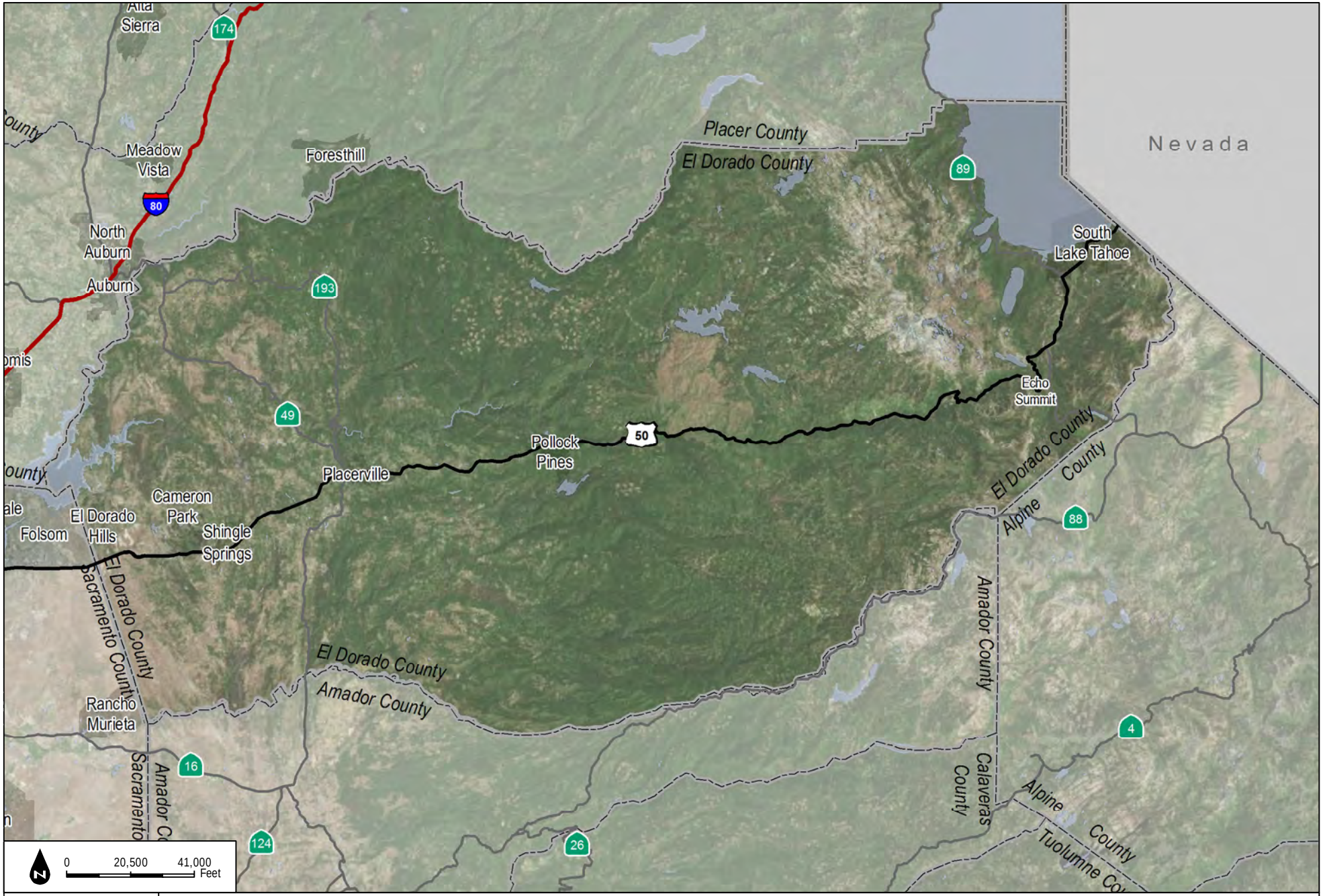

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FIGURE 3-1

Regional Location Map

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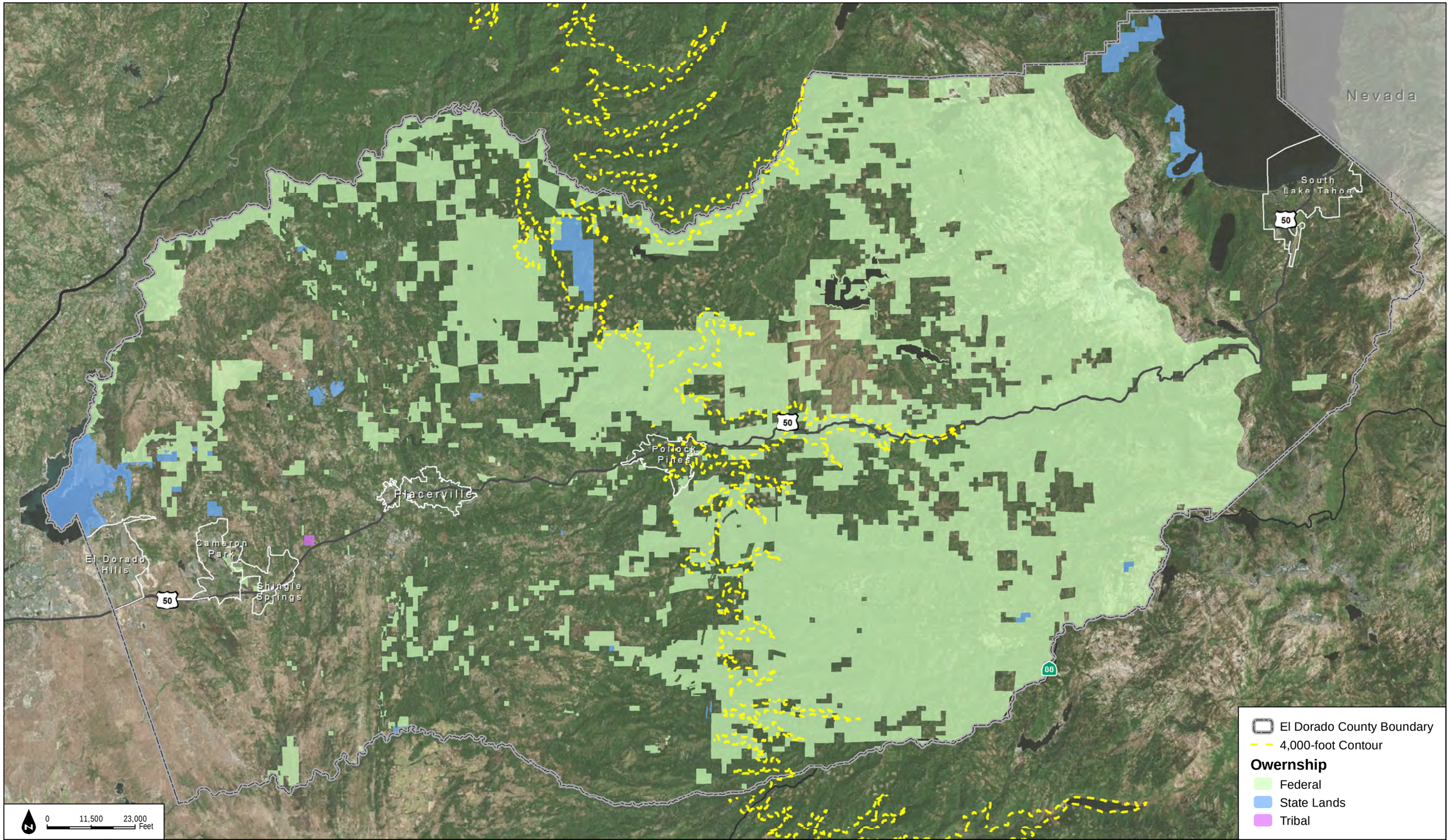

SOURCE: Bing Maps 2016; El Dorado County 2015

FIGURE 3-2
Project Area

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CHAPTER 4
METHODOLOGY AND ASSUMPTIONS

This chapter defines the baseline and cumulative conditions against which the environmental effects of the General Plan Biological Resources Policy Update, Oak Resources Management Plan, and Oak Resources Conservation Ordinance project (proposed project) are evaluated. Consistent with the El Dorado County Targeted General Plan Amendment and Zoning Ordinance Update (TGPA-ZOU) Environmental Impact Report adopted by the County BOS on December 15, 2015, the analysis considers impacts from General Plan implementation at 2025 and at 2035.

The proposed project involves updates to El Dorado County's (County's) General Plan policies relating to biological resources, adoption of an Oak Resources Management Plan (ORMP), and adoption of an Oak Resources Conservation Ordinance to implement the ORMP. This environmental impact report (EIR) evaluates the physical environmental effects that would result from buildout of the land uses anticipated under the General Plan in the context of the proposed policies and ORMP. In other words, although the proposed project would not directly cause or lead to land development and would not alter any general plan or zoning designations, this EIR identifies the physical changes that may result from buildout of the General Plan for those resources that may be affected by the requirements of the proposed policies and the ORMP and its implementing ordinance. The Initial Study that was circulated with the Notice of Preparation for this EIR presents the analysis used to determine which resources may be affected by the proposed project and are therefore evaluated in this EIR, as discussed in Section 2.5 of this EIR.

4.1 EXISTING PHYSICAL CONDITIONS

Consistent with Section 15125(a) of the California Environmental Quality Act (CEQA) Guidelines, the existing, or baseline, conditions described in this EIR are those that existed at the time the Notice of Preparation for this EIR was circulated in July 2015. These conditions are described in the Environmental Setting section of each impact analysis chapter (Chapters 5 through 9).

As this EIR provides a programmatic analysis of the impacts associated with continued implementation of the General Plan under the proposed biological resource policies, ORMP, and Oak Resources Conservation Ordinance, the description of the existing conditions is provided at a regional scale. For example, the Environmental Setting section Chapter 5 (Land Use and Planning) generally describes the type and range of development existing throughout the County in 2015, but does not discuss individual neighborhoods or parcels.

4.2 EXISTING REGULATORY CONDITIONS

In evaluating the physical environmental effects that would result from buildout of the land uses anticipated under the General Plan in the context of the proposed biological resource policies and

ORMP and its implementing ordinance, it is assumed that the County's other General Plan policies and development standards would apply, as well as all applicable federal and state regulations. For example, it is assumed that all development would comply with the provisions of the County General Plan and Zoning Ordinance, including the amendments and updates adopted in 2015. The existing regulatory conditions that may influence the impact analysis and mitigation measure recommendations in this EIR are summarized and/or cited in the Regulatory Conditions section of each impact analysis chapter (Chapters 5 through 9). The impact analysis includes consideration of how the regulatory requirements outside of those contemplated as part of the proposed project may limit the potential impacts of the proposed project. For example, although the proposed General Plan objectives, policies, and implementation measures do not specifically address individual threatened or endangered species, other than the Pine Hill Preserve plant species, the federal and California Endangered Species Acts would still apply to all development projects throughout the County. A project with the potential to directly affect a species listed as threatened or endangered at the state or federal level would be required to avoid or mitigate for those potential impacts, in addition to being required to comply with the County's General Plan requirements.

The County began preparation of this EIR prior to the elections of June 2016 in which El Dorado County voters passed Measure E. This measure requires, among other things, that road capacity improvements needed to prevent new residential development's cumulative traffic impacts from reaching level of service F be completed prior to the County granting any discretionary approvals. The various provisions in Measure E impact many types of development projects; however, the effect of these general plan policy amendments is currently unclear in part due to an apparent internal inconsistency. These general plan policy changes will become part of the regulatory conditions applicable to new development in the County once the election results are certified. However, as this measure was passed after circulation of the Notice of Preparation for this Draft EIR, and after preparation of the analysis contained herein (but prior to publication of the Draft EIR), the potential effects of this new regulatory condition are not reflected in the analysis of General Plan buildout, as discussed further in Section 4.3.

4.3 DEVELOPMENT PROJECTIONS

The 2004 General Plan EIR considered impacts from General Plan implementation in 2025 and at theoretical buildout (the year in which all land designated for development could be developed). The TGPA-ZOU EIR mirrored this analysis, considering the impacts of General Plan implementation at an interim year (2025) and in the long term at 2035. The development anticipated to occur at those two planning horizons was determined based on land use and development projections for the County. As described in the TGPA-ZOU EIR, the County determined the "20-year residential growth forecast by considering the amount and distribution of growth that has historically occurred within the county, future demand and market trends,

General Plan policies regarding how and where to accommodate future growth, location and availability of developable parcels, as well as other factors" (El Dorado County 2015). The growth projections used for this analysis reflects changes to the General Plan made through adoption of the Targeted General Plan Amendment-Zoning Ordinance Update (TGPA-ZOU), including policy revisions that may allow increased intensity of development relative to what was anticipated under the 2004 General Plan.

General Plan Buildout Projections

Consistent with the 2004 General Plan EIR and the TGPA-ZOU EIR, this EIR evaluates impacts from implementation of the proposed project under both a short-term (2025) and a long-term (2035) scenario using the same development projections developed by the County as part of the TGPA-ZOU process. In that process, the County retained BAE Urban Economics Inc. (BAE) to prepare an updated set of housing and employment growth projections, which the County used in preparation of the updated Travel Demand Model used to evaluate the TGPA-ZOU. The development projections used for this EIR analysis reflect both historic and recent development patterns in the County as well as the changes to those patterns anticipated as a result of the General Plan and zoning changes adopted under the TGPA-ZOU. Those changes primarily increased the number of locations where development of different types would be allowed within the County and increased the potential for higher intensity development to occur.

To define baseline conditions, in 2010, BAE established that western El Dorado County supported 139,941 residents, 59,668 housing units, and 32,597 jobs. This data was determined through a review of 2010 U.S. Census data as well as Sacramento Area Council of Governments data regarding estimated employment in 2008 and projected employment for 2014. BAE then prepared residential growth projections for El Dorado County as a whole and for the West Slope. BAE evaluated three separate data sources and projections—California State Department of Finance data, Sacramento Area Council of Governments data, and a third set of projections that are based on historic construction trend data furnished by El Dorado County—and used this data to develop one single reasonable growth trend. The projected residential annual growth rate of 1.03% was based on the County's data regarding issuance of building permits. BAE noted that this rate falls between the California Department of Finance's projected rate of 1.28% and the Sacramento Area Council of Government's projected rate of 0.72% (BAE Urban Economics 2013).

It is noted that at the time of adoption of the 2004 General Plan, land development was occurring rapidly, particularly in the communities of El Dorado Hills and Cameron Park (El Dorado County 2003). Since 2008, the rate of population growth in El Dorado County has significantly slowed, as a direct result of the recession and the slow economic recovery that has followed (California Department of Finance 2011 and 2013, as cited in El Dorado County 2015). The

effects of this slowdown are reflected in the growth projections for the County. The population of unincorporated El Dorado County was estimated at 183,287 persons on January 1, 2014, and 184,917 persons on January 1, 2015 (California Department of Finance 2015), reflecting an annual growth of 0.9%.

The General Plan allows for a maximum of approximately 32,500 residences to be built under its current provisions in addition to those existing in 2000. Between 2000 and 2015, the County approved approximately 15,000 homes for construction, leaving a capacity for approximately 17,500 residences under the current General Plan. The estimate of 17,500 residences is not a limit or a goal, and the actual level of residential development may be lower, depending on market forces, the availability of infrastructure, limitations under Measure Y traffic policies, site topography, and other factors that influence development intensity. The BAE Urban Economics projection of population growth to 2035 indicates that the County's population will increase by approximately 40,913 persons within the West Slope area, minus the City of Placerville (BAE Urban Economics 2013). This would require approximately 17,409 additional housing units.

The County's existing development and growth projections include the following:

- 146,059 acres within the County are already developed with residential land uses;
- 64,579 acres within the County are already developed with non-residential land uses;
- By 2025, an additional 5,175 acres of new residential development are projected, providing for construction of 9,907 new residential units;
- By 2025, an additional 5,925 acres of new non-residential development are projected, providing for creation of 9,149 new jobs;
- Between 2025 and 2035, an additional 4,901 acres of new residential development are projected, providing for construction of 7,502 new residential units; and
- Between 2025 and 2035, an additional 5,846 acres of new non-residential development are projected, providing for creation of 6,929 new jobs.

In total between 2015 and 2035, the County is estimated to have 16,020 additional dwelling units and non-residential development to support 16,078 new jobs.

The growth projections were also allocated into various sub-County market areas as part of the TGPA/ZOU analysis, which allowed preparation of data regarding the anticipated development footprint for the 2025 and 2035 analysis periods. The General Plan continues to direct that most development should occur in Community Regions while growth in the Rural Centers would serve the larger Rural Regions. The General Plan calls for resource-based activities to be located in the Rural Regions.

The proposed project does not propose any specific development activities. This EIR impact analysis focuses on the potential impacts of future development and population growth anticipated under the General Plan in the context of the proposed General Plan policy revisions and requirements of the ORMP and its implementing ordinance. The proposed project would revise certain General Plan policies, but would not change the amount or planned locations of future development and related growth.

Measure E

As discussed previously, Measure E was passed into law by El Dorado County voters in June 2016. Measure E could potentially restrict development in some locations within the County because it requires, among other things, that road capacity improvements needed to prevent new residential development's cumulative traffic impacts from reaching level of service F be completed prior to the County granting any discretionary approvals. Other provisions in Measure E affect other types of development and place limitations on funding. As evaluated in the TGPA-ZOU EIR, the amount and location of General Plan buildout anticipated for 2035 would result in level of service F on some roadways, particularly in the Cameron Park and El Dorado Hills communities. Under the recently-approved Measure E, development in areas where roadway capacity is constrained could potentially be reduced unless the affected roadways are expanded or otherwise improved to achieve acceptable levels of service. It is uncertain, and beyond the scope of the analysis of the currently proposed project to predict, how the passage of Measure E will alter the General Plan buildout scenarios. Measure E could potentially reduce the total amount of development within the County, could potentially result in additional road construction and widening, could potentially result in changes in the locations of development, or some combination of these three. In light of this uncertainty, this EIR relies on the General Plan buildout scenarios described in this section to provide a conservative analysis of the potential effects from the proposed General Plan Biological Resources Policy Update, Oak Resources Management Plan, and Oak Resources Conservation Ordinance project.

4.4 DATA ANALYSIS

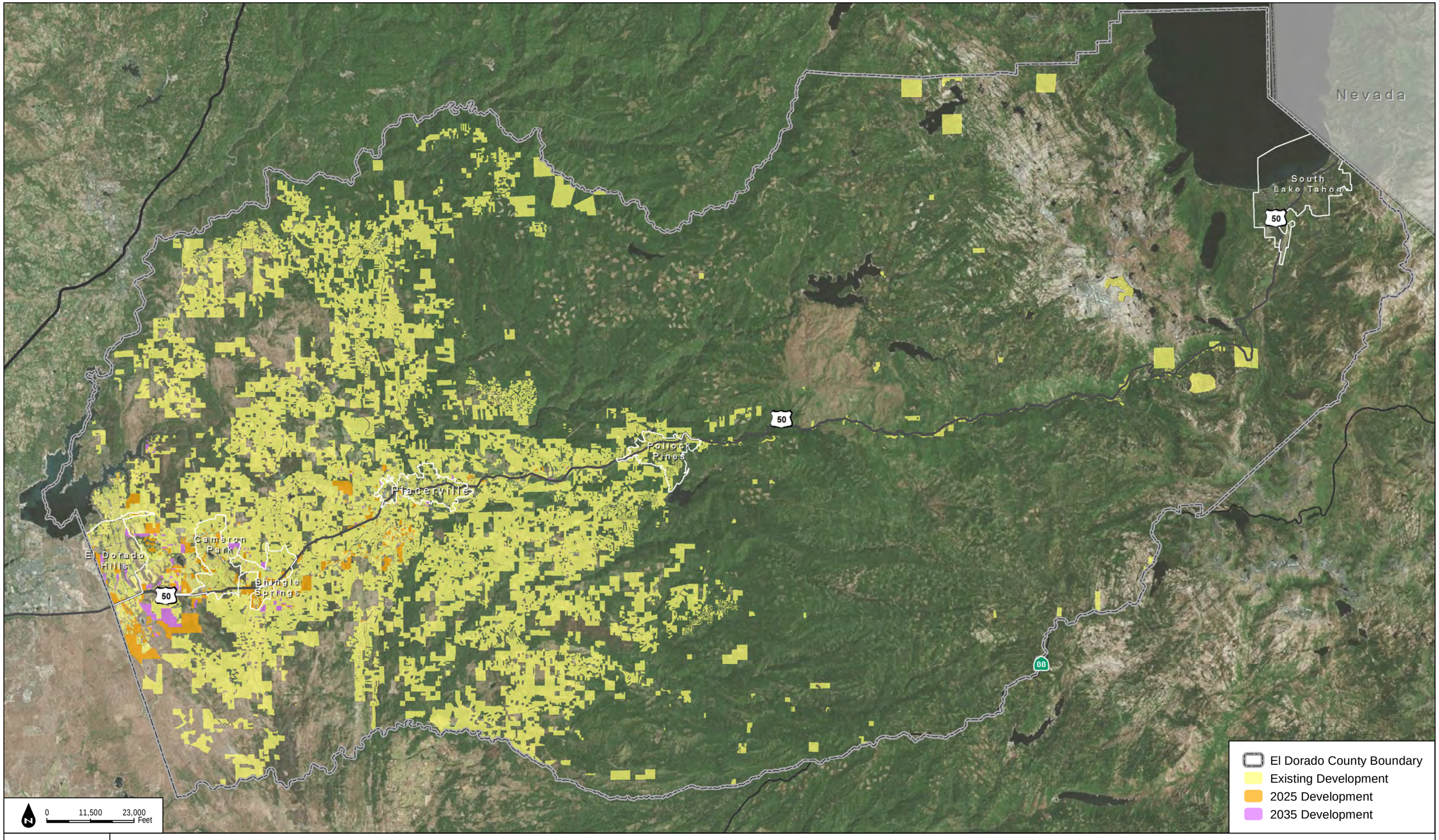
To evaluate the potential effects of the anticipated development in both the short-term and long-term scenarios, various geographic information systems (GIS)-based data sources were used to model the location of development with respect to the County's biological resources. These sources include:

- County Assessor's parcel data
- County's development projections from the TGPA-ZOU analysis
- California Department of Forestry and Fire Protection 2015 Fire and Resource Assessment Program data regarding vegetation communities (CAL FIRE 2015)

Figure 4-1, Development Footprints, shows existing levels of development, the projected development areas for 2025, and the projected development areas for 2035, based on the County Assessor's parcel data and the County's development projections.

As discussed further in Chapters 5 and 6, the data from these sources was layered together to identify where the physical footprint of development would affect each vegetation community, including oak woodlands. The resulting maps of development footprints and vegetation impacts informed the impact analysis presented in this EIR.

While the proposed project does not include any site-specific development activities, the proposed project would influence how development occurs throughout the County. To calculate the potential impacts that would be associated with development under the proposed project, the County Assessor's parcel data was used to identify parcels that already support some level of development and those that are vacant. Further, for the vacant parcels, the General Plan and zoning designations and the growth projection data discussed in Section 4.3 were used to identify which vacant parcels would be likely to be developed under the 2025 and 2035 analysis scenarios. Where a currently vacant parcel was identified as being expected to develop, the impact analysis in this EIR assumes that all of the biological resources on such a parcel would be removed or otherwise adversely affected by development. In other words, the impact analysis assumes that no natural habitat or vegetation would be retained onsite. This approach provides a conservative estimate of impacts. In practice, it is typical for development activities throughout the County to retain at least some portion of the natural habitat or vegetation on a given project site. In other words, while the proposed General Plan policies, ORMP, and Oak Resources Conservation Ordinance seek to encourage on-site retention of at least a portion of the natural habitat and vegetation, to ensure that the environmental impact analysis does not undercount impacts, it is assumed that no on-site retention would occur.



SOURCE: Bing Maps 2016; El Dorado County 2016

FIGURE 4-1
Development Footprints

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Biological Resources Policy Update and Oak Resources Management Plan Administrative Draft EIR

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CHAPTER 5
LAND USE AND PLANNING

This chapter addresses the potential land use impacts associated with the General Plan Biological Resources Policy Update, Oak Resources Management Plan, and Oak Resources Conservation Ordinance project (proposed project), in particular the potential for the project to result in development that would degrade the land use character of existing communities within El Dorado County (County), conflict with other applicable plans and regulations, and/or create incompatibilities between land uses. The proposed project would establish new procedures and requirements for new land development projects and the County's assessment of and mitigation for impacts to biological resources. Amendments to several General Plan objectives, policies, and implementation measures to address the County's need for a clear, defensible, feasible, and reasonable approach to managing biological resource impacts, including impacts to oak trees and oak woodland resources, would be implemented with the proposed project. The proposed project also includes adoption of an Oak Resources Management Plan (ORMP) and implementing ordinance (Oak Resources Conservation Ordinance) that would update and replace the Oak Woodlands Management Plan (OWMP) adopted by the County in May 2008. The proposed project would not alter the land use and zoning designations for any property, and no specific development is proposed. Further, the project would not change the amount or planned locations of future development and related growth. However, the project would revise certain General Plan policies and adopt the ORMP, which would alter the biological resources mitigation requirements for individual development projects.

Comments regarding land use received in response to the Notice of Preparation include a request to address the viability of the 2004 General Plan given the proposed elimination of the Integrated Natural Resources Management Plan; the potential for development to increase if the proposed policies are more permissive than current policies; and a request to evaluate applicable policies in the 2004 General Plan as well as the draft targeted General Plan Amendment/Zoning Ordinance update (TGPA-ZOU). The Notice of Preparation, Initial Study, and comments received are included in Appendix A.

5.1 ENVIRONMENTAL SETTING

Existing County Land Uses

The County of El Dorado encompasses approximately 1,800 square miles in east–central California as shown in Figure 3-1, Regional Location Map. The County stretches from Folsom Lake in the west to the California–Nevada state line in the east. Topographically, the County can be divided into two zones: the northeast corner of the County is located in the Lake Tahoe Basin and the remainder of the County is located on the western slope of the Sierras, which is the area west of Echo Summit. Elevations within the County range from 850 feet above mean sea level in

the westernmost portion to over 7,200 feet at some of the higher peaks in the eastern portion of the County, in the Tahoe Basin.

Within the County there are two incorporated cities: the City of Placerville, located in the western portion of the County, and the City of South Lake Tahoe, located in the eastern portion of the County. In addition, there are substantial areas of the County that are under state and federal agency ownership, including the National Park Service, U.S. Bureau of Reclamation, and State Parks. U.S. Highway 50 (Highway 50) bisects the County and is the major east–west transportation corridor to access the Sierras to the east. Highway 49 provides a north–south connection in the western portion of the County.

The proposed changes to the County's biological resource objectives, policies, and implementation measures contained in the Conservation and Open Space Element of the County's 2004 General Plan would take effect County-wide. As the County lacks jurisdiction within the two incorporated cities, as well as within federal, state, and tribal lands, the proposed General Plan policies and ORMP would not apply to those areas. This includes the national forest lands between the Tahoe Basin and the communities of Georgetown, Pollock Pines, and Grizzly Flats.

Within the County, land uses include rural residential and agriculture, higher density urban and suburban development along the Highway 50 corridor and in Community Regions, and large areas of open space. Agricultural uses in the County include vineyards, cattle ranching, and orchards. Suburban development is located in the communities of El Dorado Hills and Cameron Park along the U.S. Highway 50 corridor west of Placerville. The smaller communities of Shingle Springs and Diamond Springs include small commercial nodes and rural residential development. Other rural communities in the unincorporated areas, such as Camino, Pollock Pines, Georgetown, Rescue, Coloma, and Grizzly Flats have maintained their separate identities and are generally surrounded by areas of lower intensity and more open space.

At the time of adoption of the County's 2004 General Plan, development of urban and rural residential land uses was occurring at a rapid rate, particularly in the communities of El Dorado Hills and Cameron Park near the Sacramento County line (El Dorado County 2003, as cited in El Dorado County 2015). Since 2008, the rate of population growth in the County has significantly slowed, due to the state-wide recession and the slow economic recovery that has followed (California Department of Finance 2011, 2013, as cited in El Dorado County 2015).

Community Character

With its several small communities, extensive agricultural activities, and large areas of open space, the County is generally considered rural in character. The General Plan notes as a key principle that "the General Plan defines those characteristics which make the County "rural" and

provides strategies for preserving these characteristics" (El Dorado County 2004, as amended 2015). Further, the General Plan describes the County's intent to maintain the County's "rural quality of life" and includes policies that organize land uses in the County by intensity in order to maintain this rural quality while allowing sufficient development to support the existing communities and provide a vibrant regional economy. The County's Community Planning Guide (El Dorado County 2014) notes that in addition to preserving the historic and rural character of the County's communities, residents also frequently identify goals of creating a community that offers good paying jobs and improving the ability to age-in-place. Further, the General Plan notes that "residents generally agreed that compatible infill development and clustered communities are mechanisms to reduce development pressures in rural areas, thus preserving the County's rural character and maintaining a sense of place within communities" (El Dorado County 2004, as amended 2015).

Historic growth in the County resulted in compact development patterns, with the establishment of several small mixed use communities. More recent development trends have included "large lot, low-density residential development [that] has introduced a more rural lifestyle throughout the County and has slowly transformed rural areas into areas characterized with dispersed residential uses" (El Dorado County 2004, as amended 2015).

Tribal, Federal, State, and City Lands

Some areas within the County boundaries are not under County jurisdiction and therefore not subject to land use regulation by the County. These areas include tribal lands, such as the Shingle Springs Band of Miwok Indians Rancheria, and federal and state lands, such as National Forest lands (Eldorado National Forest, Tahoe National Forest, Lake Tahoe Basin Management Unit), Bureau of Land Management (BLM) lands, U.S. Bureau of Reclamation lands (Folsom Lake), and State Parks. There are two incorporated cities in El Dorado County: the City of Placerville and the City of South Lake Tahoe. Nearly half the land area of the County falls within the jurisdiction of these other government agencies and is outside of the County's jurisdiction (El Dorado County 2003, as cited in El Dorado County 2015).

Growth Projections

As discussed in more detail in Section 4.3, this EIR evaluates impacts from implementation of the proposed General Plan amendments and ORMP under both a short-term (2025) scenario and a long-term (2035) scenario using the same development projections developed by the County as part of the TGPA-ZOU process. In that process, the County retained BAE Urban Economics Inc. (BAE) to prepare an updated set of housing and employment growth projections, which the County used in preparation of the updated Travel Demand Model used to evaluate the TGPA-ZOU. The development projections used for this EIR analysis reflect both historic and recent

development patterns in the County as well as the changes to those patterns anticipated as a result of the General Plan and zoning changes adopted under the TGPA-ZOU. Those changes primarily increased the number of locations where development of different types would be allowed within the County and increased the potential for higher intensity development to occur.

The population of unincorporated El Dorado County was estimated at 183,287 persons on January 1, 2014, and 184,917 persons on January 1, 2015 (California Department of Finance 2015), reflecting an annual growth of 0.9%. The BAE projection of population growth to 2035 indicates that the County's population will increase by approximately 40,913 persons within the West Slope area, minus the City of Placerville (BAE Urban Economics 2013). This would require approximately 15,409 additional housing units. Based on the BAE projections, the impact analysis in this EIR is based on the following growth assumptions:

The County's existing development and growth projections include the following (BAE Urban Economics 2013):

- 146,059 acres within the County are already developed with residential land uses;
- 64,579 acres within the County are already developed with non-residential land uses;
- By 2025, an additional 5,175 acres of new residential development are projected, providing for construction of 9,117 new residential units;
- By 2025, an additional 5,925 acres of new non-residential development are projected, providing for creation of 9,149 new jobs;
- Between 2025 and 2035, an additional 4,901 acres of new residential development are projected, providing for construction of 7,502 new residential units; and
- Between 2025 and 2035, an additional 5,846 acres of new non-residential development are projected, providing for creation of 6,929 new jobs.

5.2 REGULATORY SETTING

Federal Regulations

There are no federal regulations applicable to the project.

State Regulations

Government Code Section 65300—General Plans

State law requires all cities and counties in the state to "adopt a comprehensive, long-term general plan for the physical development of the county" (Government Code Section 65300).

The general plan is considered to be the County's "constitution," containing development and conservation policies and a vision that will guide its long-term growth. State law mandates that the general plan address land use, housing, circulation, open space, conservation, noise, and public safety, as well as any other issues that may be of interest to the County. General plans are typically updated routinely in order to ensure the plan remains relevant. The land use element of a general plan identifies the allowable types, density, and intensity of land uses through its list of residential, commercial, agricultural, industrial, and other land use designations.

The general plan land use diagram (map) identifies the locations of these existing and future land uses, as well as the communities within which they will be located.

Local Regulations

El Dorado County 2004 General Plan

Land within the County is subject to regulation under the General Plan, zoning, and subdivision ordinances. The adopted El Dorado County 2004 General Plan states the following:

> It is the explicit intent of the Plan, through the appropriate application of these planning concept areas, to: (1) foster a rural quality of life; (2) sustain a quality environment; (3) develop a strong diversified, sustainable local economy; (4) plan land use patterns which will determine the level of public services appropriate to the character, economy, and environment of each region; and (5) accommodate the County's fair share of the regional growth projections while encouraging those activities that comprise the basis for the County's customs, culture, and economic stability (El Dorado County 2004, p. 6).

Most unincorporated areas of the County fall within areas designated as Community Regions under the General Plan, where growth will be directed and facilitated; Rural Centers, where growth and commercial activities under the General Plan will be directed to serve the larger Rural Regions; and Rural Regions, where the General Plan calls for resource-based activities to be located, and which, under the General Plan, are to be enhanced while accommodating reasonable growth.

Specific General Plan objectives and policies that are applicable to consideration of the impacts of the proposed General Plan Amendments and adoption of the ORMP include the following (El Dorado County 2004, as amended 2015):

Objective 2.1.1: Community Regions

Purpose: The urban limit line establishes a line on the General Plan land use maps demarcating where the urban and suburban land uses will be developed. The Community Region boundaries as depicted on the General Plan land use map shall be the established urban limit line.

Provide opportunities that allow for continued population growth and economic expansion while preserving the character and extent of existing rural centers and urban communities, emphasizing both the natural setting and built design elements which contribute to the quality of life and economic health of the County.

Policy 2.1.1.2: Establish Community Regions to define those areas which are appropriate for the highest intensity of self-sustaining compact urban-type development or suburban type development within the County based on the municipal spheres of influence, availability of infrastructure, public services, major transportation corridors and travel patterns, the location of major topographic patterns and features, and the ability to provide and maintain appropriate transitions at Community Region boundaries. These boundaries shall be shown on the General Plan land use map.

Policy 2.1.1.3: Mixed use developments which combine commercial and residential uses in a single project are permissible and encouraged within Community Regions. Within Community Regions, the mixed-uses may occur vertically and/or horizontally. In mixed use projects, the maximum residential density shall be 20 dwelling units per acre within Community Regions. The residential component of a mixed use project may include a full range of single and/or multi-family design concepts. The maximum residential density of 20 dwelling units per acre may only be achieved where adequate infrastructure, such as water, sewer and roadway are available or can be provided concurrent with development.

Objective 2.1.2: Rural Centers

Purpose: The urban limit line establishes a line on the General Plan land use maps demarcating where the urban and semi-urban land uses will be developed. The Rural Center boundaries as depicted on the General Plan land use map shall be the established urban limit line.

Recognize existing defined places as centers within the Rural Regions which provide a focus of activity and provides goods and services to the surrounding areas.

Policy 2.1.2.2: Rural Center boundaries establish areas of higher intensity development throughout the rural areas of the County based on the availability of infrastructure, public services, existing uses, parcelization, impact on natural resources, etc. These boundaries shall be shown on the General Plan land use map.

Policy 2.1.2.3: To meet the commercial and service needs of the residents of the Rural Centers and Rural Regions, the predominant land use type within Rural Centers shall be commercial and higher density residential development.

Policy 2.1.2.5: Mixed use developments which combine commercial and residential uses in a single project are permissible and encouraged within Rural Centers. Within Rural Centers, the mixed uses may occur either vertically and/or horizontally. The maximum residential density shall be 10 dwelling units per acre in Rural Centers in identified mixed use areas as defined in the Zoning Ordinance. The residential component of a mixed use project may include a full range of single and/or multi-family design concepts. The maximum residential density of 10 dwelling units per acre may only be achieved where adequate infrastructure, such as water, sewer and roadway are available or can be provided concurrent with development.

Policy 2.2.2.1: The following General Plan overlay designations are included:

A. Agricultural Districts

B. Platted Lands

C. Ecological Preserve

D. Mineral Resource

E. Important Biological Corridor

Policy 2.2.2.2: The purpose of the Agricultural District (-A) overlay designation is to identify the general areas which contain the majority of the County's federally designated prime, State designated unique or important, or County designated locally important soils (collectively referred to as "choice" agricultural soils) and which the Board of Supervisors has determined should be preserved primarily for agricultural uses. This designation does not imply any restrictions on agricultural uses in areas not designated specifically as an Agricultural District but only serves to identify agriculture as the principal activity and to discourage incompatible uses such as higher density residential use.

A. Agricultural Districts shall be used to conserve and protect important agricultural crop lands and associated activities, maintain viable agricultural-based communities, and encourage the expansion of agricultural activities and production.

B. The minimum residential parcel size for lands containing choice agricultural soils within an Agricultural (-A) District shall be twenty (20) acres or the minimum lot size established by the underlying land use designation, whichever is greater. Residential parcels within Agricultural Districts where 70% or more of the parcel area is identified by the Agricultural Commission as land unsuitable for agriculture, as defined in "The Procedure for Evaluating the Suitability of Land for Agriculture," may be considered for a minimum parcel size of ten (10) acres. Clustering of planned residential developments on "non-choice" agricultural soils within Agricultural Districts, that have been identified by the Agricultural Commission as land unsuitable for agriculture, may be allowed but in no case smaller than five (5) acres.

C. Ranch marketing is encouraged on lands engaged in agricultural production.

Policy 2.2.2.4: The purpose of the Ecological Preserve (-EP) overlay designation is to identify those properties in public or private ownership which have potential to be established or have been established as habitat preserve areas for rare or endangered plant and animal species and/or critical wildlife habitat and/or natural communities of high quality or of Statewide importance and/or Stream Environment Zones (SEZ) as established in the Tahoe Basin. Ecological preserves may be established by private contract and/or memoranda of understanding affecting interested public agencies.

A. The Ecological Preserve overlay designation shall be combined with a basic land use designation that is appropriate for the area. The overlay will enable the land use densities or building intensities for a discretionary project to be transferred to other lands, clustered, or otherwise mitigated to maintain the Preserve.

B. The implementation strategies for the designated Ecological Preserve overlay lands shall be developed and approved by the Board of Supervisors prior to the designation taking effect. Implementation strategies shall not change the base land use designation.

C. Within the Tahoe Basin, the Ecological Preserve overlay shall apply to SEZ as established by Section 37.3 of the Tahoe Regional Planning Agency Code of Ordinances.

Policy 2.2.2.8: The Important Biological Corridor (-IBC) overlay shall be as set forth in Policy 7.4.2.9. Where the -IBC Overlay is applied to lands that are also subject to the Agricultural District (-A) overlay or that are within the Agricultural Lands (AL) designation, the land use restrictions associated with the -IBC policies will not apply to the extent that the agricultural practices do not interfere with the purposes of the -IBC overlay.

Policy 2.2.5.20: All non-residential development, all subdivisions, residential development on existing legal lots involving any structure greater than 4,000 square feet of living area or requiring a grading permit for which land disturbance of an area of 20,000 square feet or more occurs, and all development located on lands identified as Important Biological Corridor (-IBC) on the Land Use Diagram, Figure LU-1, shall be permitted only upon a finding that the development is consistent with this General Plan and the requirements of all applicable County ordinances, policies, and regulations. For projects that do not require approval of the Planning Commission or Board of Supervisors, this requirement shall be satisfied by information supplied by the applicant demonstrating compliance. All building permits shall be consistent with the land uses described in the land use designation established for the site, as provided in Policy 2.2.1.2 and set forth on Figure LU-1.

El Dorado County Zoning Ordinance

The County's Zoning Ordinance regulates the actual use of land. Residential, commercial, agricultural, industrial, and other zones describe the allowable uses and minimum development standards that apply to a given piece of land. The subdivision ordinance establishes the procedure by which private land may be divided for sale. California Planning and Development Law requires the County's zoning and subdivision ordinance be consistent with the adopted General Plan.

Through the TGPZ/ZOU process, the County recently adopted a comprehensive update to the Zoning Ordinance to ensure the ordinance is consistent with the General Plan.

El Dorado County Community and Specific Plans

There are several unincorporated communities in the County. In order to provide greater land use policy detail than would be possible under the General Plan, the County has adopted "community plans" and "specific plans" for these areas. The following adopted community plans establish the types, intensities, and distribution of land uses within their respective communities.

- Meyers Community Plan

- Carson Creek Specific Plan
- Promontory Specific Plan
- Valley View Specific Plan
- El Dorado Hills Specific Plan
- Bass Lake Hills Specific Plan
- Northwest El Dorado Hills Specific Plan

El Dorado County Design Review and Design Guidelines

The County has adopted Community Design Guidelines, a Design and Improvement Standards Manual, and Mixed-Use Design Guidelines. These documents identify design elements and minimum requirements for projects with the intent of ensuring that development within the County contributes to the overall community character. For example, the Community Design Guidelines recommend that "natural topography and trees should be retained when possible," and that "natural features and views should be maintained and protected through use of adequate open space" (El Dorado County 1981). The County requires that projects be subject to a Design Review process when the property is located in a Design Review District.

5.3 IMPACTS

As described in Chapter 2, Project Description, the proposed project involves a limited number of policy revisions to the biological resource objectives, policies, and implementation measures contained in the Conservation and Open Space Element of the 2004 General Plan and adoption of the ORMP. This EIR analyzes whether development under the proposed General Plan objectives, policies, and implementation measures and ORMP would result in adverse effects associated with land use and planning. Specifically, the analysis in this chapter evaluates whether the proposed project has the potential to substantially alter or degrade the existing land use character of the County or create substantial incompatibilities between land uses.

The proposed project would not change General Plan land use designations or zoning designations. Instead the project would define the County's biological resource management and mitigation strategy. The proposed policies would establish requirements for identification of biological resources and analysis of impacts to those resources from future development within the County and identify standards for mitigation of such impacts. The analysis contained in this section of the EIR examines the extent to which the project would result in changes to existing conditions, specifically considering how the proposed General Plan objectives, policies, and implementation measures and proposed ORMP may affect land use development patterns and activities. This

analysis also provides the reader with a general overview of whether the project is consistent with the overall intent of the County's 2004 General Plan, as amended by the 2015 TGPA-ZOU.

Significance Criteria

The Initial Study prepared for the proposed project (see Appendix A) concluded that the project would have no impact related to the following conditions:

- Physically divide an established community.
- Conflict with any applicable habitat conservation plan or natural community conservation plan.

Therefore, this EIR evaluates the potential for the project to:

- 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;
- Substantially alter or degrade the existing land use character of the County; and/or
- Create substantial incompatibilities between land uses.

Impact LU-1

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.

Determination: Less than Significant

2004 General Plan EIR and TGPA-ZOU EIR Conclusions

The 2004 General Plan EIR and the TGPA-ZOU EIR both concluded that the County's General Plan would remain consistent with other land use and environmental resource plans, policies, and regulations that may be applicable to development projects within the County.

Project Impacts

The proposed project involves amendments to biological resources policies contained in the County's General Plan and adoption of an ORMP. The proposed General Plan revisions are

intended to establish a program for County-wide management of impacts to biological resources and mitigation for those impacts with the objective of conserving:

1. Habitats that support special-status species;
2. Aquatic environments including streams, rivers, and lakes;
3. Wetland and riparian habitat;
4. Important habitat for migratory deer herds; and
5. Large expanses of native vegetation.

It is anticipated that under the proposed General Plan biological resources policies, development projects within the County that require discretionary approvals would be required to submit to the County a biological resource technical report that meets the requirements of proposed Policy 7.4.2.8, determine the area of impact to each habitat type supported at the project site, and mitigate impacts through preservation and/or creation to ensure that the current range and distribution of special-status species within the County are maintained. Off-site mitigation sites that are acquired (through conservation easements or in fee title) must meet the criteria in proposed Policy 7.4.2.8.D.

The proposed project also includes adoption of an ORMP which defines mitigation requirements for impacts to oak woodlands, individual native oak trees, and Heritage Trees, and outlines the County's strategy for oak resource management and conservation. The ORMP is designed to function as the oak resources component of the County's Biological Resources Mitigation Program identified in proposed General Plan Policy 7.4.2.8. To this end, the ORMP identifies:

- Standards for oak woodland and native oak tree impact determination;
- Mechanisms to mitigate oak woodland and native oak tree impacts;
- Technical report submittal requirements and minimum qualifications for technical report preparation;
- Mitigation monitoring and reporting requirements; and
- Projects or actions exempt from mitigation requirements.

The ORMP also establishes an in-lieu fee payment option for impacts to oak woodlands and native oak trees, identifies minimum requirements for oak woodland conservation sites andtree replanting standards, and establishes requirements for mitigation monitoring.

Both the proposed General Plan amendments and ORMP were developed to be consistent with the remainder of the County's General Plan policies and development standards and to be consistent with state and federal standards for management of biological resources. The proposed

biological resources policies revise and refine the policies adopted with the 2004 General Plan but continue to provide protections for environmental resources and establish standards for mitigation where impacts to environmental resources cannot be avoided. The proposed General Plan Amendments provide for an internally consistent Conservation and Open Space Element of the General Plan. None of the proposed General Plan amendments and none of the ORMP requirements would conflict with other objectives, policies, or implementation measures contained in the General Plan. The project would not conflict with any applicable land use plan, policy, or regulation.

Impact LU-2

Substantially alter or degrade the existing land use character of the County.

Determination: Significant and Unavoidable

2004 General Plan EIR and TGPA-ZOU EIR Conclusions

The 2004 General Plan EIR (El Dorado County 2004, as amended 2015) found that the adopted 2004 General Plan would have a less-than-significant impact on land use character at 2025, but a significant and unavoidable impact at theoretical buildout. The 2025 impact was found less than significant because the level of development intensity was sufficiently low to retain community character, while the theoretical buildout impact was determined to be significant because the overall level of development intensification throughout the County would be sufficient to degrade community character. In the near term, the General Plan policies were found to be effective in maintaining the existing character of developed land throughout the County by focusing development within Community Regions and Rural Centers rather than throughout rural areas. In other words, the increased density in urban areas anticipated under the 2004 General Plan would support achievement of the County's goals to protect rural areas from high levels of development. In contrast, under the theoretical buildout scenario, the 2004 General Plan EIR assumed that all legal parcels designated under the General Plan for potential development would be developed to the maximum extent possible. This would result in a substantial increase in development in rural areas, leading to a degradation of the community character. Through the TGPA-ZOU process, the County updated and refined the regional growth projections for the County. These projections are discussed in Chapter 4, Methodology and Assumptions, and below. Under the TGPA-ZOU, the County adopted new policies and revisions to existing policies that allow more uses in certain areas as compared to the 2004 General Plan. The TGPA-ZOU EIR (El Dorado County 2015) concluded that future development would inevitably degrade the existing rural land use character of the County and the impact would remain significant and unavoidable, consistent with the finding of the 2004 General Plan EIR.

Project Impacts

Land use character varies throughout the County, with higher density urban and suburban development occurring along the Highway 50 corridor and in Community Regions, and other areas supporting rural residential uses, agricultural activities, and large areas of open space. The vegetation communities, including oak trees and oak woodlands, within the open space and rural areas of the County are a key element of the County's overall character. The General Plan identifies a primary goal of the County as the "Protection and conservation of existing communities and rural centers; creation of new sustainable communities; curtailment of urban/suburban sprawl; location and intensity of future development consistent with the availability of adequate infrastructure; and mixed and balanced uses that promote use of alternate transportation systems" (El Dorado County 2004, as amended 2015).

The proposed project would not alter the land use or zoning designations of any property, and would not make any changes to the General Plan policies that encourage most new development to locate in the Community Regions and Rural Centers. It also would not alter the allowable land uses or density and/or intensity of land use development projects. Thus the project would not alter land use development locations or types of land uses throughout the County.

However, the project would modify the requirements for evaluation and mitigation of impacts to biological resources and this analysis considers whether continued buildout of the General Plan land uses under the proposed biological resources policies and ORMP would alter the character of individual communities and the County as a whole.

To evaluate the potential impacts to land use character, the anticipated County-wide development footprints for the planning horizon years of 2025 and 2035 were overlaid on the California Department of Forestry and Fire Protection 2015 Fire and Resource Assessment Program (FRAP) data regarding vegetation communities. The County's existing development and growth projections include the following (BAE Urban Economics 2013):

- 146,059 acres within the County are already developed with residential land uses;
- 64,579 acres within the County are already developed with non-residential land uses;
- By 2025, an additional 5,175 acres of new residential development are projected;
- By 2025, an additional 5,925 acres of new non-residential development are projected;
- Between 2025 and 2035, an additional 4,901 acres of new residential development are projected; and
- Between 2025 and 2035, an additional 5,846 acres of new non-residential development are projected.

Impacts Related to Loss of Oak Woodland

According to the FRAP data, there is a total of 246,808 acres of oak woodlands in the County below the 4,000-foot elevation. However, this area includes some land that is not subject to the County's regulations, such as state-owned and tribal lands. Of the land that is subject to the County's regulations, there is a total of 200,929 acres of oak woodlands, and of this amount, 95,843 acres (47.7%) of land is characterized in the FRAP data as supporting oak woodland habitat is already developed (CAL FIRE 2015).

Figure 5-1 displays the areas that currently support oak woodlands that are anticipated for development under the 2025 and 2035 scenarios, while Figure 5-2 displays anticipated impacts to all vegetation communities under the 2025 and 2035 scenarios.

As shown in Figure 5-1, most impacts to oak woodlands from future development are expected to occur on properties generally within the Highway 50 corridor and west of the City of Placerville. In particular, several properties that currently support oak woodland habitats within the communities of El Dorado Hills, Cameron Park, and Shingle Springs are projected to be developed under both the 2025 and 2035 scenarios. A few properties east of Placerville that currently support oak woodlands are also expected to be developed, including properties in the community of Camino and properties south of Placerville. In total, it is expected that development through 2025 would result in conversion of a maximum of 4,071 acres of oak woodland to developed land uses. Ongoing development through 2035 would result in conversion of an additional 2,433 acres of oak woodland to developed land uses (CAL FIRE 2015). For the purposes of this analysis, it is assumed that all oak woodlands would be removed from acreage proposed for development.

Many of the properties where new impacts to oak resources are anticipated are located adjacent to other properties that support oak woodland and either have already been developed or are not planned for development. Therefore, it is expected that some oak resources would be retained in each community. However, there is still a potential that localized community character could be degraded by ongoing development that results in a loss of oak woodland habitat or other natural vegetation communities.

Under the proposed ORMP, development projects that result in loss of oak woodlands would be required to mitigate for that loss through on-site and/or off-site replanting and conservation of existing woodlands. However, the ORMP would exempt several classes of development projects from these mitigation requirements. This includes construction of single-family homes on lots less than 1 acre in size and agricultural activities. Additionally, where mitigation is required, the proposed ORMP would allow for mitigation to occur in any area within the ORMP Area (which includes all portions of the County at or below the 4,000-foot elevation). Under this provision,

mitigation for loss of oak woodlands may not necessarily be located within the same community where the impact occurred.

The conversion of oak woodland to developed uses would alter land use character in a given community by decreasing the prevalence of natural habitat and resources and increasing the presence of built environment and ornamental landscaping elements. In general these effects would be experienced at the individual community level; however, to the extent that conversion of oak woodlands to developed land uses occurs within the viewshed of Highway 50, the effects within individual communities could be combined to result in a cumulative degradation of land use character for the County overall.

As shown in Figure 5-1, it is expected that a substantial portion of the oak woodland along Highway 50 would remain in its current condition. There are large areas of already developed land that support oak woodland habitat, as well as large areas of land not anticipated to be developed under either the 2025 or 2035 scenarios. These areas occur on the south side of Highway 50 in the El Dorado Hills and Cameron Park communities and on both sides of Highway 50 between Shingle Springs and Placerville. Based on the areas of potential loss of oak woodland habitat shown in Figure 5-1, it is expected that the overall community character as experienced from Highway 50 would remain substantially the same as under existing conditions. Thus, the impacts of the project on community character would be significant at the local level and less than significant relative to County-wide community character.

Potential options to mitigate this impact include requiring a minimum level of oak woodland retention on every parcel. That option is evaluated as Alternative 2 in Chapter 10 of this EIR. Another mitigation option would be to require design review for every development project in the County. However this would place a new procedural burden on development projects and without new General Plan policies or development standards regarding retention of natural land forms and vegetation, a design review requirement would not ensure greater retention of natural landscapes and thus would not reduce this impact to a less-than-significant level. A third option for mitigation would be to modify General Plan policies and the Zoning Ordinance to reduce allowable development intensities. However this mitigation would not be feasible as it would be incompatible with the General Plan goals for arranging land uses by intensity, with higher intensity, more urban and suburban uses in the communities of El Dorado Hills and Cameron Park, which in turn allows for the rural communities to support lower intensity land uses and retain their rural character. Specifically, this mitigation would conflict with General Plan policies that encourage clustering of development and concentration of high-intensity uses in Community Regions and Rural Centers in order to preserve the remaining Rural Regions as open space and natural resource areas (including agriculture and timber). It is noted that these impacts are commensurate with the impacts identified in the 2004 General Plan EIR and the 2015 TGPA-ZOU EIR. While development that may occur under the proposed General Plan policies and

ORMP would contribute to these impacts, it would not increase or exacerbate the impacts beyond the levels previously evaluated. Thus, the project impacts on community character associated with loss of oak woodland would be **significant and unavoidable** at the local level.

Impacts Related to Loss of Other Vegetation Communities

Figure 5-2 shows the existing development footprint within all vegetation communities, and Figure 5-3 displays anticipated impacts to all vegetation communities under the 2025 and 2035 scenarios. As shown in Figure 5-3, most impacts to non-woodland vegetation communities from future development are expected to occur on properties generally within the Highway 50 corridor and west of the City of Placerville. In particular, several properties that currently support natural vegetation communities within the communities of El Dorado Hills, Cameron Park, and Shingle Springs are projected to be developed under both the 2025 and 2035 scenarios. The natural communities that would possibly be affected are hardwood forest, conifer woodland, herbaceous, and shrub; additionally, approximately seven locations projected to be developed contain wetlands. A few properties east of Placerville that currently support herbaceous and hardwood forest communities are also expected to be developed, including properties in the community of Camino and properties south of Placerville. There is a potential that localized community character could be degraded by ongoing development that results in a loss of natural vegetation communities.

The conversion of natural communities to developed uses would alter land use character in a given community by decreasing the prevalence of natural habitat and resources and increasing the presence of built environment and ornamental landscaping elements. In general these effects would be experienced at the individual community level; however, to the extent that conversion of vegetation communities to developed land uses occurs within the viewshed of Highway 50, the effects within individual communities could be combined to result in a cumulative degradation of land use character for the County overall.

As shown in Figure 5-3, it is expected that a substantial portion of the natural communities along Highway 50 would remain in its current condition. There are large areas of already developed land especially in El Dorado Hills, Cameron Park, and Placerville. Based on the areas of potential loss of natural habitat shown in Figure 5-3, it is expected that the overall community character as experienced from Highway 50 would remain substantially the same as under existing conditions. Similar to impacts related to loss of oak woodlands, the impacts of the project related to loss of vegetation communities on community character would be significant at the local level and less than significant relative to County-wide community character. For the same reasons described above, mitigation options related to requiring design review for every new development and reduction on land use densities are considered infeasible. Thus, the project

impacts on community character associated with loss of non-woodland vegetation communities would be **significant and unavoidable** at both the local and community-wide levels.

Impact LU-3

Create substantial incompatibilities between land uses.

Determination: Less than Significant

2004 General Plan EIR and TGPA-ZOU EIR Conclusions

The 2004 General Plan EIR concluded that the 2004 General Plan would have a less-than-significant impact with adoption of mitigation Measures 5.1-3(a) – 5.1-3(d) , which specify all building permits be consistent with the General Plan, locate development in such a way as to avoid creating incompatibilities, and establish siting criteria for public facilities. The mitigation measures were incorporated into the 2004 General Plan under Objective 2.2.5, General Policy Section, Policies 2.2.5.20, 2.2.5.21 and 2.2.5.22. The County also created a conformity review process to review residential and non-residential projects for development consistency.

Under the TGPA-ZOU, the County did not adopt any changes to the policies identified above. These policies remain in effect to ensure that land use decisions do not result in substantial incompatibilities between land uses and that the impact is less than significant. However, the changes to the Zoning Ordinance adopted in the TGPA-ZOU allow for changes in the location of some land uses, which could contribute to substantial incompatibilities between land uses. Specifically, some of the allowed uses could generate noise, lighting, traffic, or other impacts that are incompatible with residential, open space, and resource uses, particularly in a rural setting. Therefore, the TGPA-ZOU EIR found that changes to the Zoning Ordinance would result in significant and unavoidable impacts.

Project Impacts

The proposed project would not alter any land use or zoning designations for individual properties and would not alter the allowable land uses or other development standards applicable to each of the County's land use and zoning designations. The project would modify the requirements for biological resource assessment, impact evaluation, and mitigation. These requirements would be applied to individual development projects at the time that development applications are submitted to the County. In addition to the biological resource policies and programs considered under the proposed project, development projects would also be required to comply with the County's other development standards, such as building setbacks and maximum lot coverage, outdoor lighting requirements, design criteria, and grading and drainage performance standards. The County has adopted these development standards to provide

mechanisms to ensure that adjacent land uses are compatible with each other to the extent feasible, and the proposed project would not alter any of these development standards. While the TGPA-ZOU EIR recognized that there is a potential for land use incompatibilities to arise as land development proceeds, the proposed Biological Resources Policy Update and ORMP project would not contribute to that potential. The County would ensure compliance with the applicable development standards that reduce potential incompatibilities through the development permit and approval process.

5.4 MITIGATION MEASURES

The proposed project would result in less-than-significant impacts related to conflicts with plans, policies, and regulations adopted to provide for environmental resource protection and related to land use incompatibilities, and therefore no mitigation is required for those impacts.

The proposed project would result in a significant and unavoidable impact related to degradation of community character. There is no feasible mitigation that would substantially reduce or avoid this impact.

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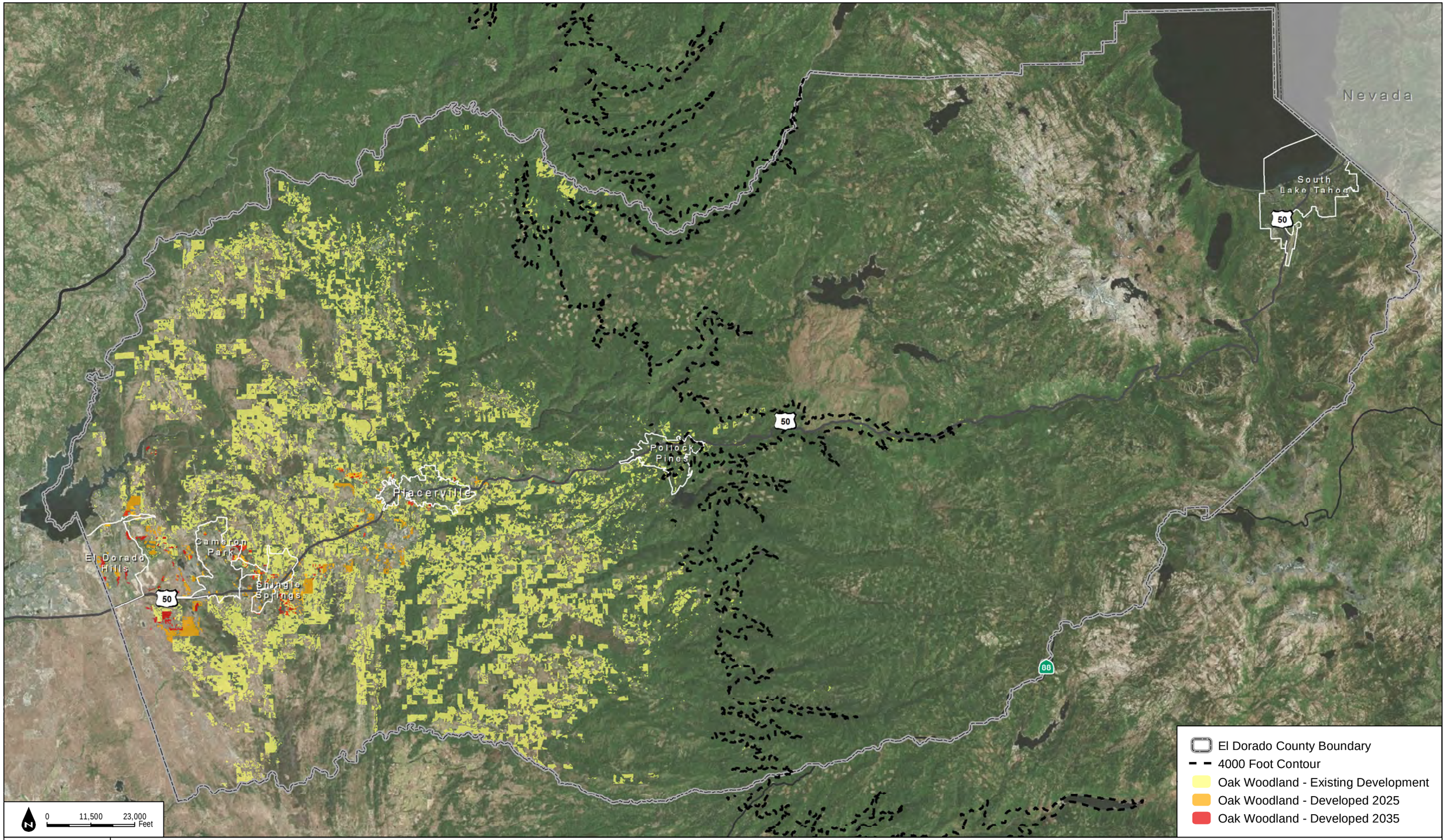

SOURCE: Bing Maps 2016; El Dorado County 2016

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FIGURE 5-1

Development Footprint within Oak Woodlands

Biological Resources Policy Update and Oak Resources Management Plan Administrative Draft EIR

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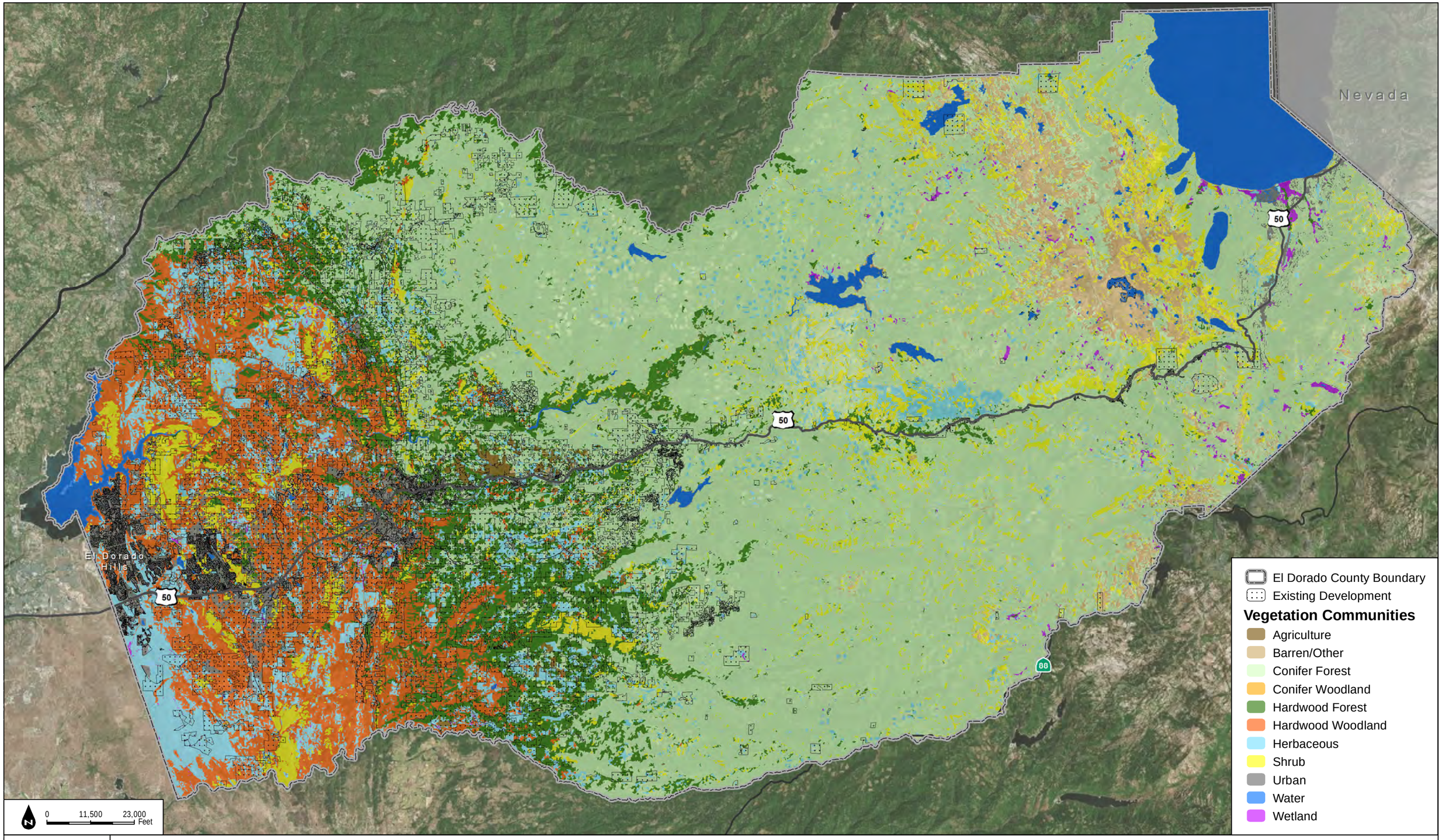

SOURCE: Bing Maps 2016; FRAP 2015; El Dorado County 2016

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FIGURE 5-2

Existing Development Footprint within Vegetation Communities

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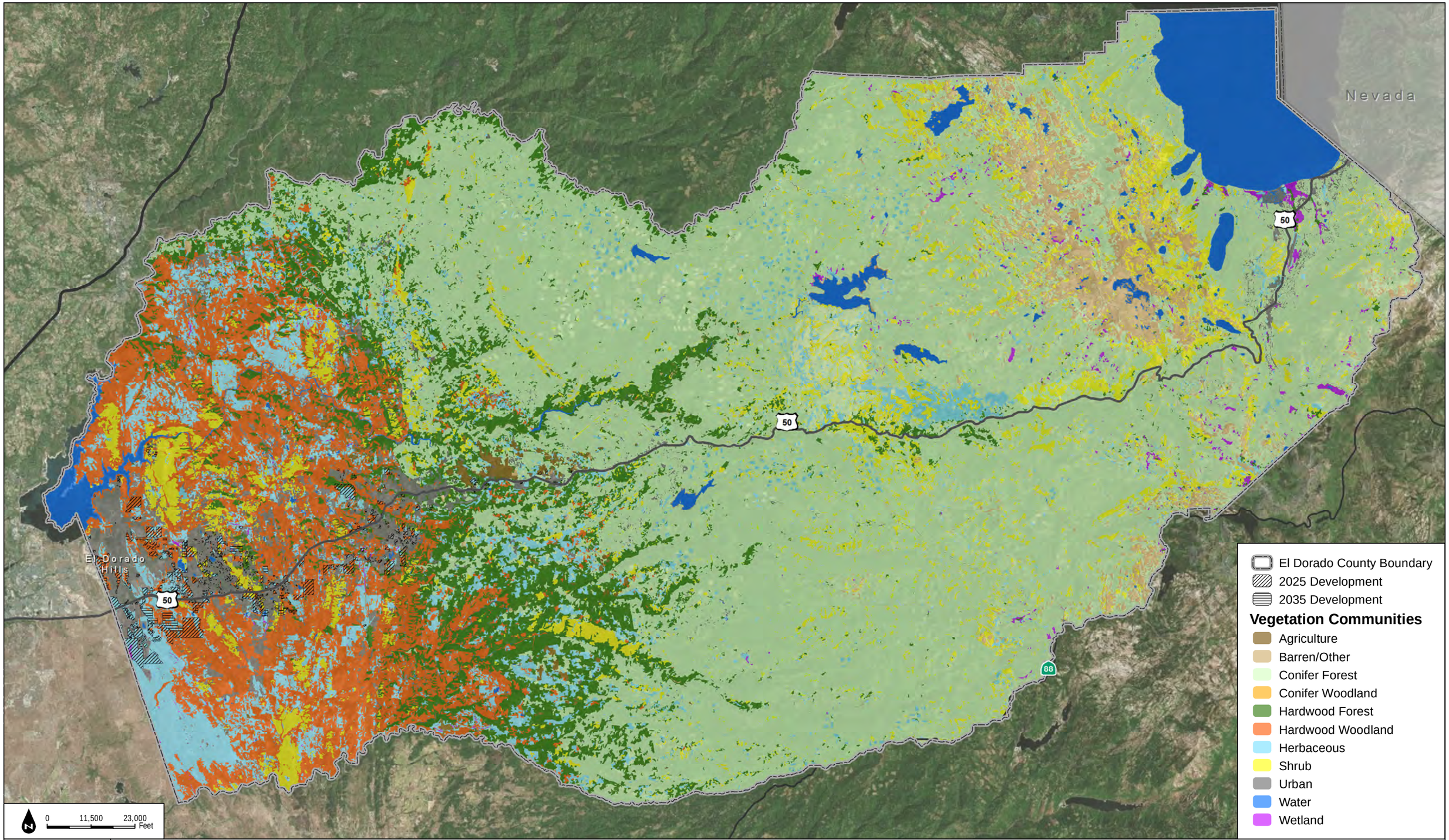

SOURCE: Bing Maps 2016; FRAP 2015; El Dorado County 2016

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FIGURE 5-3

2025 and 2035 Development Footprint within Vegetation Communities

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CHAPTER 6
BIOLOGICAL RESOURCES

This section addresses the potential impacts to biological resources associated with the General Plan Biological Resource Policy Update and Oak Resources Management Plan Project (proposed project). The proposed project would establish new procedures and requirements for new public and private land development projects and El Dorado County's (County's) assessment of impacts to, and mitigation for, biological resources. The proposed project includes amendments to several General Plan objectives, policies, and implementation measures to address the County's need for a clear, defensible, feasible, and reasonable approach to biological resource impacts, including impacts to oak trees and oak woodlands resources. The proposed project also includes proposed adoption of an Oak Resources Management Plan (ORMP) and implementing ordinance that updates and revises the Oak Woodlands Management Plan adopted by the County's Board of Supervisors in May 2008. The purpose of the ORMP is to define mitigation requirements for impacts to oak woodlands, individual native oak trees, and Heritage Trees, and to outline the County's strategy for oak woodlands conservation. As described in Chapter 3, Project Description, the updates to the General Plan biological resources policies are applicable County-wide, whereas the ORMP Area is limited to lands at or below the 4,000-foot elevation.

Several comments were received addressing biological resource concerns in response to the Notice of Preparation released on July 17, 2015, and the Revised Notice of Preparation released on November 23, 2015. These comments included the following concerns:

- Definition of oak woodlands, consistent with state law and standard biological habitat nomenclature.
- Impacts to vegetation communities, including oak woodlands, from the projected growth and development in the County.
- The adequacy of the proposed General Plan policies in avoiding, reducing, and compensating for impacts to special-status species.
- Habitat fragmentation, particularly as a result of development along the Highway 50 corridor.
- Locations of Priority Conservation Areas (PCAs), potential for PCAs in the central portion of the County, and need for oak woodlands preservation outside of PCAs.
- The degree to which natural regeneration could offset development impacts to oak woodlands.
- The viability of planting acorns and various tree container sizes as mitigation for impacted trees and woodlands, providing examples from other counties where it has been successfully implemented.

- Temporal loss of oak woodlands that is associated with planting of oak saplings, based on the long time required for sapling to reach maturity.
- The specific environmental effect of each exemption in the draft ORMP.
- The mechanisms and process by which the in-lieu fee would be implemented and used and the requirements for monitoring and reporting to ensure that mitigation is implemented appropriately and successfully.
- How proposed changes in protection for state-listed and federally listed rare plant species affect the County's enforcement requirements.
- Effects of exemptions under the ORMP.
- Responsibilities for monitoring and management of oaks that are planted as mitigation.
- Measurable performance standards to maintain oak woodlands habitat and connectivity.

The Notice of Preparation, Revised Notice of Preparation, and comments received related to biological resources are included in Appendix A.

6.1 ENVIRONMENTAL SETTING

Vegetation Communities

The varied terrain and elevation of El Dorado County contain a number of vegetation communities that support the Ccounty's flora and fauna (Table 6-1 and Figure 6-1). Based on the California Fire and Resource Assessment Program (FRAP) (CAL FIRE 2015) database, eight coniferous forest vegetation communities dominate the landscape above 2,500 feet in elevation: Douglas fir (*Pseudotsuga menziesii*), Jeffrey pine (*Pinus jeffreyi*), lodgepole pine (*Pinus contorta*), ponderosa pine (*Pinus ponderosa*), red fir (*Abies magnifica*), Sierran mixed conifer (a mix of Douglas fir, ponderosa pine, sugar pine [*Pinus lambertiana*], incense cedar [*Calocedrus decurrens*], white fir [*Abies concolor*], and black oak [*Quercus kelloggii*] as the dominant tree species), subalpine conifer (supporting lodgepole pine, mountain hemlock [*Tsuga mertensiana*] and/or red fir as the dominant tree species), and white fir. Woodland communities are located at middle and lower elevations and include montane hardwood-conifer (mixing black oak, Douglas fir, ponderosa pine, white fir, and incense cedar as the dominant tree species), montane hardwood (with canyon live oak [*Quercus chrysolepis*], foothill pine [*Pinus sabiniana*], madrone [*Arbutus menziesii*], and California bay [*Umbellularia californica*] dominant at lower elevations, and black oak and Douglas fir occurring at higher elevations), blue oak-foothill pine (a mix of interior live oak [*Quercus wislizeni*], blue oak [*Quercus douglasii*], canyon live oak, foothill pine, and California buckeye [*Aesculus californica*] as common trees), and blue oak woodlands (including also canyon live oaks and interior live oaks). Shrub dominated communities include alpine dwarf-shrub (found only at elevations above 8,500 feet), chamise chaparral (containing

chamise [*Adenostoma fasciculatum*], toyon [*Heteromeles arbutifolia*], sugar sumac [*Rhus ovata*], poison oak [*Toxicodendron diversilobum*], and California buckthorn [*Frangula californica*] at elevations up to 4,000 feet), mixed chaparral, montane chaparral (at higher elevations than chamise chaparral up to 9,000 feet), and sagebrush. Annual grassland covers large portions of the County, generally below 2,500 feet. Full descriptions of all vegetation types included in Table 6-1 are available at https://www.dfg.ca.gov/biogeodata/cwhr/wildlife_habitats.asp.

Table 6-1
Vegetation Communities in El Dorado County

Vegetation Community	Area (acres)
Alpine-Dwarf Scrub	306
Annual Grassland	74,584
Aspen	47
Barren	37,003
Blue Oak Woodland	46,521
Blue Oak-Foothill Pine	64,740
Chamise-Redshank Chaparral	452
Closed-Cone Pine-Cypress	390
Coastal Oak Woodland	2
Cropland	3,601
Deciduous Orchard	378
Douglas Fir	7,008
Eastside Pine	12
Eucalyptus	9
Evergreen Orchard	210
Fresh Emergent Wetland	639
Jeffrey Pine	11,538
Lacustrine	15,085
Lodgepole Pine	4,676
Mixed Chaparral	32,336
Montane Chaparral	46,424
Montane Hardwood	104,076
Montane Hardwood-Conifer	38,267
Montane Riparian	1,296
Pasture	418
Perennial Grassland	12,923
Ponderosa Pine	86,025
Red Fir	77,882
Riverine	1,175
Sagebrush	83
Sierran Mixed Conifer	296,721
Subalpine Conifer	4,069
Urban	38,674

Table 6-1
Vegetation Communities in El Dorado County

Vegetation Community	Area (acres)
Valley Foothill Riparian	3,764
Valley Oak Woodland	3,979
Vineyard	972
Wet Meadow	2,354
White Fir	21,560
Total	**1,040,199**

Gabbro Soils and the Pine Hill Preserve

El Dorado County has a unique plant habitat in the gabbro soils found on its western slope. These volcanic-based soils support a number of federally listed rare plants species, including Pine Hill ceanothus (*Ceanothus roderickii*), El Dorado mule ears (*Wyethia reticulata*), El Dorado bedstraw (*Galium californicum* ssp. *sierrae*), and Pine Hill flannelbush (*Fremontodendron decumbens*), all of which are found only in El Dorado County. Other rare plants reliant on this soil type that can also be found outside of El Dorado County include the Bisbee Peak rush-rose (*Helianthemum suffrutescens*, not federally or state listed), the Red Hills soaproot (*Chlorogalum grandiflorum,* not federally or state listed), Stebbins' morning glory (*Calystegia stebbinsii,* federally endangered, state endangered), and Layne's butterweed (*Packera layneae,* federally threatened, state rare). The 4,746-acre Pine Hill Preserve system has been established in order to provide some measure of protection for these species. The system of publicly owned lands spans five separate units east of Folsom Lake generally centered on Green Valley Road between U.S. Highway 50 and the American River, with about 3,276 acres designated for species recovery. In 2002, the U.S. Fish and Wildlife Service (USFWS) released the final Recovery Plan for Gabbro Soil Plants of the Central Sierra Nevada Foothills. The Preserve's management plan is guided by the Recovery Plan. The Pine Hill Preserve is administered by the Bureau of Land Management (BLM), under a cooperative management agreement between BLM, USFWS, Bureau of Reclamation, California Department of Fish and Wildlife (CDFW), California Department of Forestry and Fire Protection (CAL FIRE), El Dorado County, El Dorado Irrigation District, and the American River Conservancy. The preserve manager is funded by BLM and El Dorado County.

Oaks and Oak Woodlands

There are six primary native oak tree species in El Dorado County, including blue oak, valley oak (*Quercus lobata*), California black oak, interior live oak, canyon live oak (*Quercus chrysolepis*), and Oregon white oak (*Quercus garryana*). Additionally, one native hybrid between California black oak and interior live oak exists, known as oracle oak (*Quercus x*

morehus). These oak species comprise the County's oak woodlands and also occur outside of oak woodlands as isolated individuals or small groups.

The term "oak woodland" is defined in the Oak Woodlands Conservation Act (Article 3.5 (commencing with Section 1360) of Chapter 4 of Division 2 of the Fish and Game Code) as "an oak stand with a greater than 10% canopy cover or that may have historically supported greater than 10% canopy cover." Canopy coverage is determined by outlining the perimeter of the vegetation community that includes the typical characteristics of an oak woodlands and calculating the percent of that surface area that is covered by oak tree canopy. Characteristics considered in determining the extent of an oak woodlands vegetation community include tree species type, tree spacing (density), soil type(s), topographic features (e.g., drainages, ridge tops), and other plant species present (e.g., shrubs, small trees, grasses). The boundaries of a vegetation community generally do not reflect or coincide with parcel boundaries.

The FRAP 2015 database, which provides the most recent data on oak woodlands distribution in El Dorado County, identifies six types of oak woodlands (Table 6-2) within the County. The ORMP and implementing ordinance are intended to regulate oak resources below 4,000 feet in elevation, referred to as the ORMP Area. Less than 4,000 acres of valley oak woodlands is mapped for El Dorado County, which is designated as a "sensitive habitat" in the General Plan Environmental Impact Report (EIR) (El Dorado County 2004). While coastal oak woodlands is identified in the 2015 FRAP vegetation dataset for the County shown in Table 6-2, its presence is unlikely because this area is outside the range of its dominant tree species (coast live oak (*Quercus agrifolia*)). This classification may be the result of an image processing error during creation of the 2015 FRAP dataset, and the area is likely another oak woodlands type.

Table 6-2
Acreage of Oak Woodlands Types in the ORMP Area Below 4,000 Feet Elevation (2015 FRAP Data)[1]

Oak Woodlands Type	CWHR Code	Acreage	Percent of ORMP Area
Blue Oak Woodland	BOW	46,521	18.9%
Blue Oak-Foothill Pine	BOP	64,740	26.2%
Coastal Oak Woodland	COW	2	<0.1%
Montane Hardwood	MHW	98,930	40.1%
Montane Hardwood-Conifer	MHC	32,643	13.2%
Valley Oak Woodland	VOW	3,970	1.6%
	Total	**246,806**	**100%**

Note:
1 See Table 6-5 for a list of those oak woodlands vegetation communities that are considered sensitive habitats (S1–S3) per the CDFW ranking system.

Wildlife and Fish

Section 5.12, Biological Resources, of the 2004 General Plan EIR (El Dorado County 2004) contains a succinct discussion of the wildlife and fisheries in the County. The description is still accurate and relevant to the project and is reproduced below, minus reference citations.

Wildlife

The complex array of habitats in El Dorado County supports abundant and diverse fauna because large tracts of land are covered by habitats known to have outstanding value for wildlife, such as mixed coniferous and hardwood forests. Sierran mixed conifer habitat alone, the most common habitat in the county, supports 355 species of animals. Oak woodlands provide habitat for more than 100 species of birds, 60 species of mammals, 80 species of amphibians and reptiles, and 5,000 species of insects. Blue oak-foothill pine, another major habitat type in El Dorado County, provides suitable breeding habitat for 29 species of amphibians and reptiles, 79 species of birds, and 22 species of mammals.

Important wildlife habitat is found throughout the county. Large contiguous blocks containing multiple habitat types have the potential to support the highest wildlife diversity and abundance. Special-status wildlife occur in both large and small blocks of habitat, while some large mammals and other species that have large home ranges are generally found only on large undisturbed parcels. Generally, the lowest diversity of native wildlife species can be expected in densely urbanized areas.

Coniferous forest and other high-elevation habitats provide important habitat for many wildlife species, both resident and migratory. Common resident birds found at higher elevations in the county include Clark's nutcracker (*Nucifraga columbiana*), mountain chickadee (*Poecile gambeli*), red-breasted nuthatch (*Sitta canadensis*), brown creeper (*Certhia americana*), and Williamson's sapsucker (*Sphyrapicus thyroideus*). Common migratory birds found in coniferous forest habitats at high elevations include white-crowned sparrow (*Zonotrichia leucophrys*), Hammond's flycatcher (*Empidonax hammondii*), and Lincoln's sparrow (*Melospiza lincolnii*). Mammals in the upper montane and subalpine regions include golden-mantled ground squirrel (*Callospermophilus lateralis*), Belding's ground squirrel (*Urocitellus beldingi*), alpine chipmunk (*Tamias alpinus*), and yellow-bellied marmot (*Marmota flaviventris*).

Wildlife diversity is generally high in the lower montane coniferous forest types. Amphibians and reptiles found in lower montane forest and woodlands include Pacific treefrog (*Pseudacris regilla*) and rubber boa (*Charina bottae*). Common resident birds in these forests include Stellar's jay (*Cyanocitta stelleri*) and hairy woodpecker (*Leuconotopicus villosus*). Migratory species that use these forests for breeding during summer months include western tanager (*Piranga ludoviciana*), Nashville warbler (*Leiothlypis ruficapilla*), and black-headed grosbeak

(*Pheucticus melanocephalus*). Common mammals in lower montane coniferous forests include mule deer (*Odocoileus hemionus*) and Douglas' squirrel (*Tamiasciurus douglasii*).

Oak and other hardwood habitats at mid-elevations are important for a large percentage of the wildlife species found in El Dorado County. Reptiles and amphibians found in oak woodlands include California slender salamander (*Batrachoseps attenuatus*), western fence lizard (*Sceloporus occidentalis*), and California kingsnake (*Lampropeltis getula californiae*). Common birds in oak woodlands include acorn woodpecker (*Melanerpes formicivorus*), western scrub-jay (*Aphelocoma californica*), and oak titmouse (*Baeolophus inornatus*). Mammals that characterize oak woodlands habitat include mule deer (*Odocoileus hemionus*), western gray squirrel (*Sciurus griseus*), gray fox (*Urocyon cinereoargenteus*), and bobcat (*Lynx rufus*).

Chaparral generally has lower wildlife diversity than most forest and woodland habitats. However, chaparral does provide habitat for many wildlife species, including some that are considered rare elsewhere. Reptiles found in chaparral include western rattlesnake (*Crotalus oreganus*), western fence lizard, and western whiptail (*Cnemidophorus tigris*). Common birds in chaparral at low elevations include wrentit (*Chamaea fasciata*), Bewick's wren (*Thryomanes bewickii*), California towhee (*Melozone crissalis*), and California quail (*Callipepla californica*). At higher elevations chaparral can provide habitat for mountain quail (*Oreortyx pictus*), fox sparrow (*Passerella iliaca*), and green-tailed towhee (*Pipilo chlorurus*). Mammals commonly associated with chaparral include and gray fox and mule deer.

Annual grasslands generally support lower wildlife diversity than woodland and shrub-dominated habitats but are invaluable to the grassland-dependent species found in El Dorado County. A great diversity and abundance of insects rely on grasslands. Reptiles found in annual grasslands include western fence lizard and gopher snake (*Pituophis catenifer catenifer*). Birds that are common in this habitat include western meadowlark (*Sturnella neglecta*), Say's phoebe (*Sayornis saya*), and savanna sparrow (*Passerculus sandwichensis*). Mammals known to use this habitat include California ground squirrel (*Otospermophilus beecheyi*), black-tailed jackrabbit (*Lepus californicus*), pocket gopher (*Thomomys* spp.), and coyote (*Canis latrans*).

Agricultural land and lands dominated by urban development support many wildlife species, most of which are highly adapted to these disturbed environments. Agricultural land is not generally considered important wildlife habitat but is used by many species, particularly as foraging habitat. Wildlife found in agricultural areas varies by crop type and time of year. Common wildlife expected in most agricultural regions of El Dorado County include Brewers blackbird (*Euphagus cyanocephalus*), American crow (*Corvus brachyrhynchos*), red-tailed hawk (Buteo jamaicensis), house finch (*Haemorhous mexicanus*), raccoon (*Procyon lotor*), striped skunk (*Mephitis mephitis*), and opossum (*Didelphis virginiana*). Wildlife found in urban areas is often dependent upon surrounding land uses and the presence or absence of nearby natural vegetation. In densely

urbanized areas, a large percentage of the wildlife can be made up of exotic species such as rock dove (*Columba livia*), European starling (*Sturnus vulgaris*), house sparrow (*Passer domesticus*), house mouse (Mus musculus), and brown rat (*Rattus norvegicus*). Urban areas provide habitat for species also found in agricultural areas, such as mourning dove (*Zenaida macroura*), American robin (*Turdus migratorius*), and western gray squirrel (*Sciurus griseus*).

Fisheries

Water bodies within and bordering El Dorado County support numerous species of native and introduced game and nongame fish. Within the Eldorado National Forest, there are an estimated 611 miles of streams within four major drainage systems (Middle and South Fork American River, the Cosumnes River, and the North Fork Mokelumne River). There are also 297 public and private lakes and reservoirs totaling 11,994 surface acres, with 11 large reservoirs accounting for a majority of the total surface area. The remaining area is associated mostly with small, high mountain lakes. Outside the forest boundary, there are also a substantial number of streams and lakes.

Introduced fishes are most prevalent in reservoirs or lakes where stocking occurs for sportfishing. In El Dorado County, the CDFW has an active trout stocking program in hydroelectric and water supply reservoirs and publicly accessible reaches of the South and Silver Forks of the American River. Non-native gamefish in El Dorado County include brook trout (*Salvelinus fontinalis*), brown trout (*Salmo trutta*), kokanee salmon (*Oncorhynchus nerka*), and lake trout (*Salvelinus namaycush*). Lahontan cutthroat trout (*Oncorhynchus clarkii henshawi*), a native species, is also stocked by CDFW to sustain its population.

Native fishes found in El Dorado County streams include hardhead (*Mylopharodon conocephalus*), Sacramento pikeminnow (*Ptychocheilus grandis*), Sacramento sucker (*Catostomus occidentalis*), California roach (*Lavinia symmetricus*), speckled dace (*Rhinichthys osculus*), and sculpin (*Cottus* spp.). Rainbow trout populations in El Dorado County are a hybrid of native and stocked populations.

Currently, waterway obstructions limit movement by resident fishes within El Dorado County but are not impediments to fish migration. Historically, both chinook salmon (*Oncorhynchus tshawytscha*) and steelhead trout (*Oncorhynchus mykiss*) occurred in El Dorado County. Historical accounts describe salmon and steelhead being caught as far upstream as the current Slab Creek Reservoir, and possibly as far upstream as Eagle Rock (approximately 12 miles downstream of Strawberry). Spring-run chinook migrated up the Middle Fork American River to the confluence of the Rubicon River. Steelhead have been documented between 4 and 5 miles upstream of the mouth of the Rubicon River. Future restoration efforts may target reestablishment of one or more of these runs. Important habitat for anadromous fishes on the Cosumnes River is located downstream of the section of the river that flows through El Dorado County. Dams are the most serious obstacle to movement by resident and anadromous fishes and are found on all major rivers draining from the Sierra Nevada

except the Cosumnes River. In some cases, dams create beneficial reservoirs for fishing and fisheries while in other cases they may degrade water quality and streamflows, thereby affecting fisheries downstream. Dams can also limit the distribution of native fish by restricting access to native spawning areas. Introduced game species further limit populations of native species through consumption of fry or competition for limited resources.

Special Status Resources

Sources used for determination of special-status biological resources are as follows:

- California Native Plant Society (CNPS) California Rare Plant Rank (CRPR) 1B and 2 species (CNPS 2016)
- Special Vascular Plants, Bryophytes, and Lichens List (CDFW 2016a)
- State and Federally Listed Endangered, Threatened, and Rare Plants of California (CDFW 2016b)
- CDFW Natural Communities List (CDFG 2010)
    - Special Animals List (CDFW 2016c)

Many animal and plant species within the County are given special status under state and federal law because they are rare, threatened, endangered, or otherwise identified as needing protection in order to ensure their survival.

CDFW maintains the California Natural Diversity Database (CNDDB), a statewide inventory of reported occurrences of special-status plant and animal species. This includes federally and state-listed species, as well as plants that are considered threatened ("Rare Plant Rank" on Table 6-3). Because the project is neither site-specific nor proposing an actual development project, the following information from the CNDDB is for the entire County. Some of these species are found only in the eastern part of the County above 4,000 feet, outside the area where most of the future development is predicted to occur.

Special-status plant species are defined as those that:

- are listed or proposed for listing as threatened or endangered under the federal Endangered Species Act (ESA) or the California Endangered Species Act (CESA);
- are candidates for listing as Threatened or Endangered under ESA or CESA;
- are listed as Endangered or Rare under the California Native Plant Protection Act; or
- have a CNPS CRPR of 1A (plants presumed extirpated in California and either rare or extinct elsewhere), 1B (plants rare, threatened, or endangered in California and

elsewhere), 2A (plants presumed extirpated in California, but more common elsewhere), or 2B (plants rare, threatened, or endangered in California, but more common elsewhere).

The CNPS CRPR is used by both CDFW and USFWS in their consideration of formal species protection under ESA or CESA. Plants with CRPR 3 or CRPR 4 were not included on this list of special-status plant species because the threats to those species are either unclear (CRPR 3) or they are considered to need monitoring but don't yet warrant protection (CRPR 4).

Table 6-3 lists the special-status plant species that are known to occur or could potentially occur in El Dorado County (CDFW2015; CNPS 2016). This includes the plants of the Pine Hill Preserve, with the exception of the Bisbee Peak rush-rose, which is found in numerous locales and for which insufficient information is available to determine whether it should be listed (CRPR 3.2).

Table 6-4 lists the special-status animal species that occur or could potentially occur in El Dorado County (CDFW 2015). Special-status wildlife species were defined as those that are:

- listed or proposed for listing as threatened or endangered under the ESA or CESA;
- candidates for listing as threatened or endangered under ESA or CESA;
- protected under the Bald and Golden Eagle Protection Act;
- Fully Protected under California Fish and Game Code or listed as a California Species of Special Concern by the CDFW; or
- identified as Species of Concern by USFWS and/or National Marine Fisheries Service.

Table 6-3
Special-Status Plants Occurring or Potentially Occurring in El Dorado County

Species	Habitat	CNPS	CDFW	USFWS
Plants Occurring under 4,000 Feet Elevation				
Jepson's Onion *Allium jepsonii*	Chaparral, cismontane woodland, lower montane coniferous forest; elevation 900–4,300 feet	1B	——	—
Nissenan manzanita *Arctostaphylos nissenana*	Closed-cone coniferous forest, chaparral/rocky; elevation 1,500–3,600 feet	1B	—	—
big-scale balsamroot *Balsamorhiza macrolepis* var. *macrolepis*	Chaparral, cismontane woodland, valley and foothill grassland/sometimes serpentinite; elevation 300–4,600 feet	1B	—	—
watershield *Brasenia schreberi*	Marshes and swamps, freshwater; elevation 100–7,200 feet	2	—	—
Pleasant Valley Mariposa lily *Calochortus clavatus* var. *avius*	Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland/usually serpentinite, clay, rocky; elevation 200–4,300 feet	1B	—	—

Table 6-3
Special-Status Plants Occurring or Potentially Occurring in El Dorado County

Species	Habitat	CNPS	CDFW	USFWS
Stebbins' morning-glory *Calystegia stebbinsii*	Chaparral (openings), cismontane woodland/serpentinite or gabbroic; elevation 600–2,400 feet	1B	CE	FE
Van Zuuk's morning glory *Calystegia vanzuukiae*	Gabbro, serpentinite, chaparral, cismontane woodland; elevation 1600-3,900 feet	1B	—	—
Shore sedge *Carex limosa*	Bogs and fens, lower montane coniferous forest, meadows and seeps, marshes and swamps, upper montane coniferous forest; elevation 3,900–8,900 feet	2	—	—
Pine Hill ceanothus *Ceanothus roderickii*	Chaparral, cismontane woodland/serpentinite or gabbroic; elevation 900–2,100 feet	1B	CR	FE
Red Hills soaproot *Chlorogalum grandiflorum*	Chaparral, cismontane woodland, lower montane coniferous forest/serpentinite or gabbroic; elevation 800–3,300 feet	1B	—	—
Oregon fireweed *Epilobium oreganum*	Bogs and fens, lower montane coniferous forest, upper montane coniferous forest/mesic; elevation 1,600–7,300 feet	1B	—	—
Pine Hill flannelbush *Fremontodendron decumbens*	Chaparral, cismontane woodland/gabbroic or serpentinite, rocky; elevation 1,400–2,500 feet	1B	CR	FE
El Dorado bedstraw *Galium californicum* spp. *sierrae*	Chaparral, cismontane woodland, lower montane coniferous forest/gabbroic; elevation 300–1,900 feet	1B	CR	FE
American manna grass *Glyceria grandis*	Bogs and fens, meadows and seeps, marshes and swamps (streambanks and lake margins); elevation 50–6,500 feet	2	—	—
Parry's horkelia *Horkelia parryi*	Chaparral, cismontane woodland/especially lone formation; elevation 300–3,000 feet	1B	—	—
Saw-toothed lewisia *Lewisia serrata*	Broadleaved upland forest, lower montane coniferous forest, riparian scrub; elevation 3,000–4,700 feet	1B	—	—
broad-nerved hump moss *Meesia uliginosa*	Bogs and fens, meadows and seeps, subalpine coniferous forest, upper montane coniferous forest; elevation 3,900–9,200 feet	2	—	—
Northern adders-tongue *Ophioglossum pusillum*	Marshes and swamps (margins), valley and foothill grassland (mesic); elevation 3,300–6,600 feet	2	—	—
Layne's ragwort *Packera layneae*	Chaparral, cismontane woodland/serpentinite or gabbroic, rocky; elevation 650–3,500 feet	1B	CR	FT
Stebbins' phacelia *Phacelia stebbinsii*	Cismontane woodland, lower montane coniferous forest, meadows and seeps; elevation 2,000–6,600 feet	1B	—	—
Sierra blue grass *Poa sierrae*	Lower montane coniferous forest, openings; elevation 1,200–4,900 feet	1B	—	—
Nuttall's pondweed *Potamogeton epihydrus*	Marshes and swamps (assorted shallow freshwater); elevation 1,300–6,200 feet	2	—	—

Table 6-3
Special-Status Plants Occurring or Potentially Occurring in El Dorado County

Species	Habitat	CNPS	CDFW	USFWS
brownish beaked-rush *Rhynchospora capitellata*	Lower montane coniferous forest, meadows and seeps, marshes and swamps, upper montane coniferous forest; elevation 150–6,600 feet	2	—	—
Sanford's arrowhead *Sagittaria sanfordii*	Marshes and swamps (assorted shallow freshwater); elevation 0–2,100 feet	1B	—	—
water bulrush *Schoenoplectus subterminalis*	Bogs and fens, marshes and swamps (montane lake margins); elevation 2,400–7,400 feet	2	—	—
marsh skullcap *Scutellaria galericulata*	Lower montane coniferous forest, meadows and seeps (mesic), marshes and swamps; elevation 0–6,900 feet	2	—	—
slender-leaved pondweed *Stuckenia filiformis* ssp. *alpina*	Marshes and swamps (assorted shallow freshwater); elevation 990–7,100 feet	2	—	—
oval-leaved viburnum *Viburnum ellipticum*	Chaparral, cismontane woodland, lower montane coniferous forest; elevation 700–4,600 feet	2	—	—
El Dorado mule-ears *Wyethia reticulata*	Chaparral, cismontane woodland, lower montane coniferous forest/clay or gabbroic; elevation 600–2,100 feet	1B	—	—
Plants only Occurring Over 4,000 feet Elevation				
Galena Creek rockcress *Arabis rigidissima* var. *demota*	Forest openings on moderate to steep slopes,often in drainage ways, near meadow edges, or in other moisture-accumulating microsites; elevations above 7,000 feet	1B	—	—
Austin's astragalus *Astragalus austiniae*	Rocky, alpine boulder and rock field, subalpine coniferous forest; 8,000–9,700 feet	1B	—	—
Tulare rockcress *Boechera tularensis*	Rocky slopes, subalpine coniferous forest, upper montane coniferous forest; elevation 6,000–10,900 feet	1B	—	—
upswept moonwort *Botrychium ascendens*	Lower montane coniferous forest (mesic); elevation 4,900–6,000 feet	2	—	—
scalloped moonwort *Botrychium crenulatum*	Bogs and fens, lower montane coniferous forest, meadows and seeps, marshes and swamps (freshwater), upper montane coniferous forest; elevation 4,100–10,700 feet	2	—	—
Mingan moonwort *Botrychium minganense*	Mesic, bogs and fens, lower montane coniferous forest, upper montane coniferous forest; elevation 4,700–7,100 feet	2	—	—
western goblin *Botrychium montanum*	Mesic, lower montane coniferous forest, meadows and seeps, upper montane coniferous forest; elevation 4,800–7,100 feet	2	—	—
paradox moonwort *Botrychium paradoxum*	Alpine boulder and rock field (limestone and marble), upper montane coniferous forest (moist); elevation 5,700–13,800 feet	2	—	—
Davy's sedge *Carex davyi*	Subalpine coniferous forest, upper montane coniferous forest; elevation 4,900–10,500 feet	1B	—	—

Table 6-3
Special-Status Plants Occurring or Potentially Occurring in El Dorado County

Species	Habitat	CNPS	CDFW	USFWS
woolly-fruited sedge *Carex lasiocarpa*	Bogs and fens, marshes and swamps (freshwater, lake margins); elevation 5,500–6,900 feet	1B	—	—
Alpine dusty maidens *Chaenactis douglasii* var. *alpina*	Alpine boulder and rock fields (granitic); elevation 9,800–11,100 feet	2	—	—
Tahoe draba *Draba asterophora* var. *asterophora*	Alpine bolder and rock field, subalpine coniferous forest; elevation 8,200–11,500 feet	1B	—	—
Cup Lake draba *Draba asterophora* var. *macrocarpa*	Subalpine coniferous forest (rocky); elevation 8,200–9,200 feet	1B	—	—
Marsh willowherb *Epilobium palustre*	Bogs and fens, meadows and seeps (mesic); elevation 7,200 feet	2	—	—
starved daisy *Erigeron miser*	Rocky sites; elevation 6,200–7,600 feet	1B	—	—
Blandow's bog moss *Helodium blandowii*	Meadows and seeps, subalpine coniferous forest; elevation 6,100–8,800 feet	2	—	—
short-leaved hulsea *Hulsea brevifolia*	Lower montane coniferous forest, upper montane coniferous forest; elevation 4,900–10,500 feet	1B	—	—
long-petaled lewisia *Lewisia longipetala*	Alpine boulder and rock field, subalpine coniferous forest (mesic, rocky);elevation 8,200–9,600 feet	1B	—	—
Robbins' pondweed *Potamogeton robbinsii*	Marshes and swamps (deep water, lakes); elevation 5,000–10,800 feet	2	—	—
Tahoe yellow cress *Rorippa subumbellata*	Lower montane coniferous forest, meadows and seeps/decomposed granitic beaches; elevation 6,200 feet	1B	CE	FC
cream-flowered bladderwort *Utricularia ochroleuca*	Meadows and seeps (mesic), marshes and swamps (lake margins); elevation 4,700–4,725 feet	2	—	—

Status:
Federal
FE: Federally listed as endangered
FT: Federally listed as threatened
State
CE: State listed as endangered
CT: State listed as threatened
CR: State rare
Other
CRPR: California Rare Plant Rank
1B.1 Plants rare, threatened, or endangered in California and elsewhere; seriously threatened in California
1B.2 Plants rare, threatened, or endangered in California and elsewhere, fairly threatened in California
2 Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere

Table 6-4
Special-Status Wildlife Occurring in El Dorado County

Species	Habitat	CDFW	USFWS
Invertebrates			
vernal pool fairy shrimp *Branchinecta lynchi*	Endemic to vernal pools and swales associated with valley and foothill grasslands. Elevation range 30–5,600 feet.	—	FT
valley elderberry longhorn beetle *Desmocerus californicus dimorphus*	Elderberry shrubs, usually in streamside habitats, but also found in isolated elderberry bushes. Elevation range from sea level to 3,000 feet.	—	FT
Fish			
hardhead *Mylopharodon conocephalus*	Undisturbed areas of larger middle- and low-elevation streams. Elevation range from 30–4,800 feet	CSC	—
Lahontan cutthroat trout *Oncorhynchus clarkii henshawi*	Coldwater lakes and streams. Elevation range from sea level to 10,000 feet.	—	FT
steelhead–central valley DPS *Oncorhynchus mykiss irideus*	Found in cool, clear, fast-flowing permanent streams and rivers with ample cover from riparian vegetation or undercut banks. Elevation range from sea level to 10,000 feet.	—	FT
steelhead- Klamath Mountains Province DPS *Oncorhynchus mykiss irideus*	Found in cool, clear, fast-flowing permanent streams and rivers with ample cover from riparian vegetation or undercut banks. Elevation range from sea level to 10,000 feet.	CSC	—
Amphibians and Reptiles			
California tiger salamander *Ambystoma californiense*	Vernal pools and seasonal ponds in valley and foothill grasslands. Elevations range from sea level to 3,200 feet.	CT/CSC	FT
northwestern pond turtle *Emys marmorata marmorata*	Streams and ponds with suitable upland habitat for nesting. Elevation range from sea level to 4,700 feet.	CSC	—
Mount Lyell salamander *Hydromantes platycephalus*	Large rock areas near seeps or streams; generally found within mixed conifer, red fir, lodgepole pine or subalpine habitats. Elevation range 4,130–11,940 feet.	CSC	—
northern leopard frog *Lithobates pipiens*	Generally prefers permanent water with abundant aquatic vegetation. One known population near Lake Tahoe. Elevation range from sea level to 7,000 feet.	CSC	—
coast horned lizard *Phrynosoma blainvillii*	Chaparral, can also occur in oak woodlands. Elevation range from 4,000–6,000 feet.	CSC	—
foothill yellow-legged frog *Rana boylii*	Partly shaded, shallow streams with a rocky substrate. Elevation range from near sea level to 6,370 feet.	CSC	—
California red-legged frog *Rana draytonii*	Breeding habitat includes marshes, springs, permanent and semi-permanent natural ponds, and ponded and backwater portions of streams. Adult frogs prefer dense, shrubby or emergent riparian vegetation near deep, still or slow moving water. Elevation range from sea level to 5,000 feet.	CSC	FT
mountain yellow-legged frog *Rana muscosa*	Streams, lakes and ponds at higher elevations. Elevation range from 6,000 to 12,000 feet.	CE/CSC	FE
Sierra Nevada yellow-legged frog *Rana sierrae*	Lakes, ponds, meadow streams, isolated pools, and sunny riverbanks in the Sierra Nevada Mountains. Elevation range from 1,000–12,000 feet.	CT/CSC	FE

Table 6-4
Special-Status Wildlife Occurring in El Dorado County

Species	Habitat	CDFW	USFWS
Birds			
Northern goshawk *Accipiter gentilis*	Prefers middle and higher elevations and mature, dense conifer forest. Elevation range from 1,000–10,800 feet.	CSC	—
tricolored blackbird *Agelaius tricolor*	Colonial species that requires emergent marsh, blackberry bushes, or other dense cover near open water for nesting. Elevation range from sea level to 3,300 feet.	CE	—
golden eagle *Aquila chrysaetos*	Nests on cliff edges or in large trees near grasslands and open forests and woodlands. Elevation range from sea level to 10,000 feet.	CFP	—
burrowing owl *Athene cunicularia*	Grasslands and agricultural fields at lower elevations, but can occur sporadically at higher elevations. Elevation range from sea level to 12,000 feet.	CSC	—
Vaux's swift *Chaetura vauxi*	Prefers redwood and Douglas-fir habitat with nest sites in large hollow trees and snags. Elevation range from 1,500–4,500 feet.	CSC	—
northern harrier *Circus cyaneus*	Grasslands, agricultural fields, marshes and other open habitats in valleys and foothills. Elevation range from sea level to 10,000 feet.	CSC	—
olive-sided flycatcher *Contopus cooperi*	Found in a variety of forest and woodland habitats. Elevation range from sea level to 10,500 feet.	CSC	—
black swift *Cypseloides niger*	Nests in moist crevices and cliffs behind or adjacent to waterfalls in deep canyons. Elevation range 3,000– 10,000 feet.	CSC	—
yellow warbler *Dendroica petechial brewsteri*	Breeds in riparian habitats, montane chaparral and coniferous forests with dense shrub layers. Elevation range from sea level to 9,000 feet.	CSC	—
white-tailed kite *Elanus leucurus*	Open grasslands, woodlands and savannas; generally avoids areas with extensive winter freezes. Elevation range from sea level to 5,000 feet.	CFP	
willow flycatcher *Empidonax traillii*	Thickets of low, dense willows. Elevation range from sea level to 8,000 feet.	CE	—
bald eagle *Haliaeetus leucocephalus*	Uses conifer snags and other large trees near large water bodies for nesting. Elevation range from sea level to 6,500 feet.	CE/CFP	—
yellow-breasted chat *Icteria virens*	Breeds in riparian scrub and riparian woodland. Elevation range from sea level to 5,000 feet.	CSC	—
loggerhead shrike *Lanius ludovicianus*	Open habitats with scattered shrubs and trees. Elevation range from sea level to 7,500 feet.	CSC	—
bank swallow *Riparia riparia*	Colonial nester that requires vertical earthen banks or cliffs near rivers or lakes. Elevation range from sea level to 7,000 feet.	CT	—
great gray owl *Strix nebulosa*	Forest habitat adjacent to meadows or bogs. Elevation range from 3,000–8,000 feet,	CE	—
California spotted owl *Strix occidentalis occidentalis*	Nests in dense, multilayered evergreen forest. Elevation range from 1,000–8,500 feet.	CSC	—
yellow-headed blackbird *Xanthocephalus xanthocephalus*	Occur as migrants in grasslands, croplands, or savanna. Elevation range from sea level to 8,000 feet.	CSC	—

Table 6-4
Special-Status Wildlife Occurring in El Dorado County

Species	Habitat	CDFW	USFWS
Mammals			
pallid bat *Antrozous pallidus*	A wide variety of habitats at lower elevations, including grasslands, shrublands, woodlands and forests. Elevation range from sea level to 8,000 feet.	CSC	—
Sierra Nevada mountain beaver *Aplodontia rufa californica*	Rivers, lakes, ponds and streams with nearby dense understory of small deciduous trees and shrubs	CSC	—
Townsend's big-eared bat *Corynorhinus townsendii*	All but subalpine and alpine habitats, and may be found at any season throughout its range. Elevation range from sea level to 9,500 feet.	CCT/CSC	—
California wolverine *Gulo gulo*	A variety of high elevation habitats including subalpine and montane forest. Elevation range from 1,600–10,800 feet.	CT/CFP	—
Sierra Nevada snowshoe hare *Lepus americanus tahoensis*	High elevation habitats with evergreen bushes, dense thickets of willows, logs, or jumbled piles of fallen trees or shrubs. Elevation range from 4,800 feet to above 8,000 feet. Upper elevation limit uncertain.	CSC	—
southwestern river otter *Lontra canadensis sonora*	Rivers and large streams. Elevation range from sea level to 10,000 feet.	CSC	—
fisher- West Coast DPS *Pekania pennanti*	Coniferous or deciduous-riparian forest with high percentage canopy cover. Elevation range from sea level to 8,500 feet.	CCT/CSC	FCT
American badger *Taxidea taxus*	Drier open stages of most shrub, forest, and herbaceous habitats with friable soils. Elevation range from sea level to 12,000 feet.	CSC	—
Sierra Nevada red fox *Vulpes vulpes necator*	Various habitats including forested areas and wet meadows. Typically found above 7,000 feet elevation.	CT	—

DPS = Distinct Population Segment
Status:
Federal
FE: Federally listed as endangered
FT: Federally listed as threatened
FCT: Candidate for federal listing as threatened.
State
CE: State listed as endangered
CT: State listed as threatened
CCT: Candidate for state listing as threatened
CFP: State designated Fully Protected or Protected
CSC: State designated "Species of Special Concern"

Consistent with the 2004 General Plan EIR, sensitive habitats in the County include vegetation "alliances" with state ranks of S1–S3 (S1: critically imperiled; S2: imperiled; S3: vulnerable) as identified in the *List of Vegetation Alliances and Associations* (CDFG 2010) and subsequent updates. Additionally, all vegetation "associations" within the alliances with ranks of S1–S3 are considered sensitive habitats.

Alliances and associations are defined by the Federal Geographic Data Committee (2008) as follows:

> **Alliance**: A vegetation classification unit of low rank (7th level) containing one or more associations, and defined by a characteristic range of species composition, habitat conditions, physiognomy, and diagnostic species, typically at least one of which is found in the uppermost or dominant stratum of the vegetation (Jennings et al. 2006). Alliances reflect regional to subregional climate, substrates, hydrology, moisture/nutrient factors, and disturbance regimes.
>
> **Association**: A vegetation classification unit of low rank (8th level) defined on the basis of a characteristic range of species composition, diagnostic species occurrence, habitat conditions and physiognomy (Jennings et al. 2006). Associations reflect topo-edaphic climate, substrates, hydrology, and disturbance regimes.

The 2004 General Plan EIR used CAL FIRE's FRAP land cover data (CAL FIRE 2002 as cited in El Dorado County 2004) to identify broad-scale vegetation types within the County. The FRAP data is often paired with the California Wildlife Habitat Relationships System (CWHR) which classifies existing vegetation types important to wildlife. The CWHR system was developed by the CDFW to recognize and logically categorize major vegetative complexes at a scale sufficient to predict wildlife-habitat relationships. According to the 2015 FRAP data, the following general CWHR categories occur within the County:

- Agriculture
- Barren/Other
- Conifer Forest
- Hardwood Forest
- Hardwood Woodland
- Herbaceous
- Shrub
- Urban
- Water
- Wetland

In some cases, sensitive habitats on the *List of Vegetation Alliances and Associations* correspond directly with the CWHR classification system used by FRAP, but typically, the classifications of vegetation in the *List of Vegetation Alliances and Associations* are more detailed. In other words,

the FRAP land cover data identifies major (e.g., broad scale) habitat types while the *List of Vegetation Alliances and Associations* provides a more specific level of habitat classification. Both FRAP and *List of Vegetation Alliances and Associations* data were used to map sensitive natural habitats (2004 General Plan EIR, Exhibit 5.12-7, El Dorado County 2004).

In addition to those CWHR categories considered sensitive habitats (S1–S3) per the CDFW ranking system, a number of the CWHR categories provide habitat for special-status species as defined above. To identify these additional vegetation communities, the FRAP (CAL FIRE 2015) land cover data was reviewed for those that could provide habitat for potentially occurring special-status species. This EIR considers these "special-status species habitats" as "sensitive habitats," in addition to the S1–S3 sensitive habitats.

The vegetation communities analyzed in this EIR as "sensitive habitats" are identified in Table 6-5.

Table 6-5
Sensitive Habitats in El Dorado County

Vegetation Community (FRAP Classification)	Potential Vegetation Alliance (from CDFG 2010)	Status*
Closed-Cone Pine-Cypress	Whitebark pine forest	S4 (associated with special-status species)
	Knobcone pine forest	S4 (associated with special-status species)
	Lodgepole pine forest	S4 (associated with special-status species)
	Jeffrey pine forest	S4 (some associations are of high priority for inventory)
	Western white pine forest	S4 (some associations are of high priority for inventory)
	Ponderosa pine forest	S4 (some associations are of high priority for inventory)
	Washoe pine woodland	CDFW Special-Status Vegetation Community – S2.2
	Mixed conifer forest	S4 (associated with special-status species)
	Ponderosa pine-Douglas fir forest	S4 (some associations are of high priority for inventory)
	Ghost pine woodland	S4 (associated with special-status species)
Douglas Fir	Douglas fir forest	S4 (some associations are of high priority for inventory)
	Douglas fir-Incense cedar forest	CDFW Special-Status Vegetation Community – S3
	Douglas fir-tanoak forest	S4 (associated with special-status species)
Ponderosa Pine	Ponderosa pine forest	S4 (some associations are of high priority for inventory)
	Washoe pine woodland	CDFW Special-Status Vegetation Community – S2.2
	Mixed conifer forest	S4 (associated with special-status species)
	Ponderosa pine-Douglas fir forest	S4 (some associations are of high priority for inventory)
Wet Meadow	Western bistort-primrose monkey flower meadows	S4 (associated with special-status species)
	Small camas meadows	CDFW Special-Status Vegetation Community – S3?
	Water sedge and Lakeshore sedge meadows	CDFW Special-Status Vegetation Community – S3

Table 6-5
Sensitive Habitats in El Dorado County

Vegetation Community (FRAP Classification)	Potential Vegetation Alliance (from CDFG 2010)	Status*
	Beaked sedge and blister sedge meadows	S4 (associated with special-status species)
	White-root beds	CDFW Special-Status Vegetation Community – S2?
	Brewer sedge mats	CDFW Special-Status Vegetation Community – S3
	Star sedge fens	CDFW Special-Status Vegetation Community – S3?
	Shorthair sedge turf	S4 (associated with special-status species)
	Heller's sedge fell-fields	CDFW Special-Status Vegetation Community – S2
	Different-nerve sedge patches	CDFW Special-Status Vegetation Community – S3?
	Small-fruited sedge meadows	CDFW Special-Status Vegetation Community – S2?
	Jones's sedge turf	CDFW Special-Status Vegetation Community – S3
	Shore sedge fens	CDFW Special-Status Vegetation Community – S2?
	Woodland sedge fens	CDFW Special-Status Vegetation Community – S2?
	Small-winged sedge meadows	CDFW Special-Status Vegetation Community – S2?
	Nebraska sedge meadows	S4 (associated with special-status species)
	Showy sedge sod	CDFW Special-Status Vegetation Community – S3?
	Torrent sedge patches	CDFW Special-Status Vegetation Community – S3
	Sierra alpine sedge turf	CDFW Special-Status Vegetation Community – S3
	Twotooth sedge seeps	CDFW Special-Status Vegetation Community – S3?
	Short-beaked sedge meadows	CDFW Special-Status Vegetation Community – S3
	Showy sedge sod	CDFW Special-Status Vegetation Community – S3
	Mount Shasta sedge meadows	CDFW Special-Status Vegetation Community – S3?
	Three-way sedge meadows	CDFW Special-Status Vegetation Community – S1
	Manna grass meadows	CDFW Special-Status Vegetation Community – S3?
	Common velvet grass-sweet vernal grass meadows	None (associated with special-status species)
	Pullup muhly meadows	S4? (associated with special-status species)
	Western cowbane meadows	CDFW Special-Status Vegetation Community – S3
	Mountain heather mats	S4? (associated with special-status species)
	Long-stalk clover meadows	CDFW Special-Status Vegetation Community – S3?
	Dwarf bilberry meadows and mats	CDFW Special-Status Vegetation Community – S3?
	Bog blue berry wet meadows	CDFW Special-Status Vegetation Community – S3
	White corn lily patches	S4 (associated with special-status species)
Aspen	Aspen groves	CDFW Special-Status Vegetation Community – S3.2
Blue Oak Woodland	Blue oak woodland	S4 (some associations are of high priority for inventory); protected under state law (Public Resources Code Section 21083.)
Blue Oak-Foothill Pine	Blue oak woodlands (*Quercus douglasii - Pinus sabiniana* association)	S3.2; protected under state law (Public Resources Code Section 21083.)

Table 6-5
Sensitive Habitats in El Dorado County

Vegetation Community (FRAP Classification)	Potential Vegetation Alliance (from CDFG 2010)	Status*
Valley Oak Woodland	Valley oak woodlands Alliance	CDFW Special-Status Vegetation Community – S3; protected under state law (Public Resources Code Section 21083.)
Eastside Pine	Mixed conifer forest	S4 (associated with special-status species)
	Ponderosa pine forest	S4 (some associations are of high priority for inventory)
Subalpine Conifer	Subalpine fir forest	S4 (some associations are of high priority for inventory)
	Whitebark pine forest	S4 (associated with special-status species)
	Western white pine forest	S4 (some associations are of high priority for inventory)
	Mountain hemlock forest	S4 (associated with special-status species)
Perennial Grassland	Perennial rye grass fields	None (associated with special-status species)
	Bent grass-tall fescue meadows	None (associated with special-status species)
	Long-stalk clover meadows	CDFW Special-Status Vegetation Community – S3?
	White-tip clover swales	CDFW Special-Status Vegetation Community – S3
	Indian rice grass grassland	CDFW Special-Status Vegetation Community – S1.2
	Cheatgrass grassland	None (associated with special-status species)
	Purple needle grass grassland	CDFW Special-Status Vegetation Community – S3?
Chamise-Redshank Chaparral	Chamise chaparral	S5 (some associations are of high priority for inventory)
Sagebrush	Little sagebrush scrub	S4 (some associations are of high priority for inventory)
	Rothrockii's sagebrush	CDFW Special-Status Vegetation Community – S3
	Big sagebrush	S5 (associated with special-status species)
	Mountain big sagebrush	S5 (associated with special-status species)
Coastal Oak Woodland	California bay forest	CDFW Special-Status Vegetation Community – S3
	Canyon live oak forest	S5 (some associations are of high priority for inventory)
	California black oak forest	S4 (some associations are of high priority for inventory)
	Interior live oak woodland	S4 (associated with special-status species)
Montane Hardwood	Canyon live oak forest	S5 (some associations are of high priority for inventory)
Montane Hardwood-Conifer	California black oak forest	S4 (some associations are of high priority for inventory)
	Douglas fir forest	S4 (some associations are of high priority for inventory)
	Douglas fir-tanoak forest	S4 (associated with special-status species)
	Incense cedar forest	CDFW Special Status Vegetation Community – S3
	Mixed conifer forest	S4 (associated with special-status species)
	Ponderosa pine forest	S4 (some associations are of high priority for inventory)
	Ponderosa pine-Douglas fir forest	S4 (some associations are of high priority for inventory)
	Tanoak forest	CDFW Special-Status Vegetation Community – S3
Montane Riparian	Bigleaf maple forest	CDFW Special-Status Vegetation Community – S3
	White alder groves	S4 (some associations are of high priority for inventory)
	Water birch thicket	CDFW Special-Status Vegetation Community – S2
	Fremont cottonwood forest	CDFW Special-Status Vegetation Community – S3
	Black cottonwood forest	CDFW Special-Status Vegetation Community – S3

Table 6-5
Sensitive Habitats in El Dorado County

Vegetation Community (FRAP Classification)	Potential Vegetation Alliance (from CDFG 2010)	Status*
	Aspen groves	CDFW Special-Status Vegetation Community – S3
	Black willow thickets	CDFW Special-Status Vegetation Community – S3
	Red willow thickets	CDFW Special-Status Vegetation Community – S3
	California bay forest	CDFW Special-Status Vegetation Community – S3
Lacustrine	Not Classified	Wetland
Riverine	Not Classified	Wetland
Jeffrey Pine	Jeffrey pine forest	S4 (some associations are of high priority for inventory)
Lodgepole Pine	Lodgepole pine forest	S4 (associated with special-status species)
Red Fir	Red fir forest	S4 (some associations are of high priority for inventory)
Sierran Mixed Conifer	Mixed conifer forest	S4 (associated with special-status species)
	White fir-sugar pine forest	S4 (associated with special-status species)
White Fir	White fir forest	S4 (some associations are of high priority for inventory)
	White fir-sugar pine forest	S4 (associated with special-status species)
	White fir-Douglas fir forest	S4 (some associations are of high priority for inventory)
Annual Grassland	Annual brome grasslands	None (associated with special-status species)
	Red brome or Mediterranean grass grasslands	None (associated with special-status species)
	Cheatgrass grassland	None (associated with special-status species)
	Barbed goatgrass patches	None (associated with special-status species)
	Wild oats grasslands	None (associated with special-status species)
Alpine-Dwarf Shrub	Brewer sedge mats	CDFW Special Status Vegetation Community – S3
	Shorthair sedge turf	S4 (associated with special-status species)
	Showy sedge sod	CDFW Special-Status Vegetation Community – S3?
	Showy sedge sod	CDFW Special-Status Vegetation Community – S3
	White mountain heather heath	CDFW Special-Status Vegetation Community – S3?
	Fell-fields with California heath-goldenrod and Pacific alpine gold	CDFW Special-Status Vegetation Community – S3?
	Alpine fescue fell-fields	CDFW Special-Status Vegetation Community – S3?
	Mountain sorrel patches	CDFW Special-Status Vegetation Community – S3?
	Dwarf bilberry meadows and mats	CDFW Special-Status Vegetation Community – S3?
Low Sage	Little sagebrush scrub	S4 (some associations are of high priority for inventory)
	Black sagebrush scrub	CDFW Special-Status Vegetation Community – S3
Mixed Chaparral	Common whiteleaf manzanita chaparral	CDFW Special Status Vegetation Community – S3?
	Ione manzanita chaparral	CDFW Special-Status Vegetation Community – S1
	Green leaf manzanita chaparral	S4 (associated with special-status species)
	White leaf manzanita chaparral	S4 (some associations are of high priority for inventory)

Table 6-5
Sensitive Habitats in El Dorado County

Vegetation Community (FRAP Classification)	Potential Vegetation Alliance (from CDFG 2010)	Status*
	Mountain white thorn chaparral	S4 (associated with special-status species)
	Wedge leaf ceanothus chaparral, Buck brush chaparral	S4 (associated with special-status species)
	Deer brush chaparral	S4 (some associations are of high priority for inventory)
	Chaparral white thorn chaparral	S4 (associated with special-status species)
	Tobacco brush or snow bush chaparral	S4 (associated with special-status species)
	Scrub oak chaparral	S4 (some associations are of high priority for inventory)
	Leather oak chaparral	S4 (some associations are of high priority for inventory)
	Brewer oak scrub	S4 (associated with special-status species)
	Huckleberry oak chaparral	S4 (associated with special-status species)
Montane Chaparral	Green leaf manzanita chaparral	Associated with Special-Status Species
	Chaparral white thorn chaparral	CDFW Special-Status Vegetation Community – S3?
	Tobacco brush or snow bush chaparral	S4 (associated with special-status species)
	Curl leaf mountain mahogany scrub	S4 (associated with special-status species)
	Birch leaf mountain mahogany chaparral	S4 (associated with special-status species)
	Bush chinquapin chaparral	CDFW Special-Status Vegetation Community – S3
	Toyon chaparral	CDFW Special-Status Vegetation Community – S3
	Bitter cherry thickets	S4 (associated with special-status species)
	Huckleberry oak chaparral	S4 (associated with special-status species)

Note:
* When the rarity rank is uncertain, the most likely rank is assigned and the question mark qualifier is added (e.g., S2?) to express uncertainty, or a range rank (e.g., S2–S3) is used to delineate the limits (range) of uncertainty.

Habitat Connectivity and Wildlife Movement Key Concepts

Wildlife corridors are linear features that connect large patches of natural open space and provide avenues for the migration of animals. Wildlife corridors contribute to population viability by assuring continual exchange of genes between populations, providing access to adjacent habitat areas for foraging and mating, and providing routes for recolonization of habitat after local extirpation or ecological catastrophes (e.g., fires).

Habitat connectivity or linkages are small patches that join larger blocks of habitat and help reduce the adverse effects of habitat fragmentation. Habitat linkages provide a potential route for gene flow and long-term dispersal of plants and animals and may also serve as primary habitat for smaller, more sedentary animals, such as small rodents, reptiles, and amphibians. Habitat linkages may be continuous habitat or discrete habitat islands that function as stepping stones for dispersal.

Regional Habitat Connectivity and Wildlife Movement Data and Analysis

Two studies have addressed landscape-level habitat connectivity in the project region: (1) the California Essential Habitat Connectivity Project (Spencer et al. 2010); and (2) the California Missing Linkages study (Penrod et al. 2001).

The California Essential Habitat Connectivity (CEHC) Project (Spencer et al. 2010) is a collaborative effort commissioned by the CDFW and the California Department of Transportation that developed a coarse-scale "Essential Connectivity Map" showing large "Natural Landscape Blocks" throughout the state and areas considered essential for providing ecological connectivity between the blocks, called "Essential Connectivity Areas." They are not intended to be detailed linkage designs, but are "placeholder polygons that can inform land-planning efforts." As stated by Spencer et al. (2010: pp. xi–xiii):

> The Natural Landscape Blocks were delineated based primarily on an Ecological Condition Index devised by Davis et al. (2003, 2006) using degree of land conversion, residential housing impacts, road impacts, and status of forest structure (for forested areas) as inputs. This index was modified by also considering degree of conservation protection and areas known to support high biological values, such as mapped Critical Habitat and hotspots of species endemism. Essential Connectivity Areas were delineated using least-cost corridor models run on a data layer that represents the relative permeability of the landscape to wildlife movements, based on land cover naturalness, modified slightly to reflect conservation status.

At a very coarse scale, the CEHC Project shows that the County is primarily located in the Sierra Nevada foothills and extends to the western edge of the Sierra Nevada Ecoregion. The CEHC Project includes two large Natural Landscape Blocks in the County – one encompassing national forest in the eastern portion of the County (primarily at elevations of 4,000 feet above mean sea level or greater) and the other in the southwestern portion of the County – and several smaller, almost fragmented Natural Landscape Blocks along the South Fork of the American River, North Fork of the American River, and the Rubicon River. The CEHC Project also includes a number of Potential Riparian Connections, the largest of which are along the South Fork of the American River, the North Fork of the American River, the Rubicon River, and the Cosumnes River; and two Essential Connectivity Areas providing north–south connectivity within both the western and eastern portions of the County.

The CEHC Project highlights potential regional or landscape-scale habitat connectivity features, and shows that the County is part of two conceptual north–south connections, as well as east–

west connections along the North Fork of the American River, the Rubicon River, and the Cosumnes River.

The California Missing Linkages publication (Penrod et al. 2001) came out of a conference cosponsored by the California Wildlife Coalition, The Nature Conservancy, the U.S. Geological Survey, the Center for Reproduction of Endangered Species, and California State Parks. The conference included various scientists, conservationists, and land planners and managers representing various ecoregions in California. Participants were provided map materials, including land cover, roads, and land ownerships, and based on their expertise, marked locations of important habitat linkages and corridors. Overall, the study identified 232 "linkages" statewide and categorized each as a Landscape Linkage (an existing large regional connection), a Connectivity Choke-Point (a constrained linkage), or a Missing Link (a heavily impacted area with very limited or no existing connectivity). El Dorado County is on the boundary of the Sierra Nevada ecoregion. Several linkages have been identified in the region:

- SN05 – North–South Oak Woodland, Choke-Point
- SN06 – North–South Placer County Oak Woodland, Missing Link
- SN07 – Upper Cosumnes River, Landscape Linkage
- SN11 – El Dorado – Tahoe National Forest Checkerboard, Missing Link
- SN13 – Tahoe – Shoreline, Missing Link

SN11 and SN13 overlap with ecologically significant areas identified for California spotted owl in Penrod et al. (2001).

The western portion of the County includes SN06, which is consistent with an Essential Connectivity Corridor, and SN07, which is consistent with a Natural Landscape Block and an Essential Connectivity Corridor. SN05 (a north–south linkage across U.S. Highway 50 between Shingle Springs and Placerville), SN06 (a north–south linkage at the upper end of Lake Folsom) and SN07 are consistent with the County's Important Biological Corridors (IBCs). The eastern portion of the County includes SN13, which is consistent with a Natural Landscape Block and an Essential Connectivity Corridor. SN11 is a north–south missing link in the middle of the County (at elevations of 4,000 feet above mean sea level or greater)) and is not consistent with the CEHC Project or with the County's IBCs, but implementation of the General Plan is not expected to conflict with this missing link.

Habitat Connectivity and Wildlife Movement Needs

The most energy-efficient movement areas for most large species (mountain lion [*Puma concolor*], bobcat, mule deer, American black bear (*Ursus americanus)*, and coyote) are most

likely along main drainages and canyons, including the South Fork of the American River, the North Fork of the American River, the Rubicon River, and the Cosumnes River, as well as various tributaries, ridgelines, and dirt roads. For example, Dickson and Beier (2006) found that mountain lions in Southern California preferentially move along canyon bottoms and gently sloping terrain rather than ridgelines and steep terrain. Mule deer, on the other hand, are expected to use and move through all kinds of terrain, and particularly can benefit from steeper terrain that provides hillsides and steep slopes to escape from mountain lions, coyotes, and other predators (Lingle 2002; Pierce et al. 2004). With the possible exception of coyotes, which can occur in many types of natural and man-made land covers, the larger species are also most often associated with heterogeneous vegetation communities and natural features that provide food, refuge, and cover for breeding and resting, and efficient movement conduits. For example, bobcats are most closely associated with brushy and rocky area nears springs and other water sources. Mountain lions are also associated with rocky areas, cliffs, and ledges that provide cover, but are also associated with open woodlands and riparian zones that provide movement connections. Mule deer are browsers that forage from ground level (e.g., for acorns) to brushy vegetation within their upper reach and are strongly associated with early to intermediate successional stages of shrublands, woodlands, and forests and ecotones. American black bears are associated with more mature dense stands of forests and woodlands that provide denning habitat, but may use and move through a variety of land covers at different times.

Because wildlife movement corridors are inclusive of a variety of land covers and topographic features, rather than focusing on specific narrow movement corridors or pathways such as along specific drainages, the County should be viewed as a broad mosaic of topographic and vegetation features that provide a range of habitats for the different species and support diffuse movement across the landscape.

6.2 REGULATORY SETTING

Federal Regulations

Federal Endangered Species Act

Section 9 of the ESA prohibits any "take" of a species that has been federally listed as threatened or endangered, except as permitted under the act. The definition of take is "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in such conduct" and has been interpreted to include habitat modification that interferes with a species' feeding, breeding, or shelter. For example, changes in land use (e.g., conversion of vernal pool wetlands to urban development) that could result in the loss of vernal pools occupied by fairy shrimp would be prohibited under the ESA unless a take permit was obtained. Within the ORMP Area, federally listed species include Stebbins' morning-glory, Pine Hill ceanothus, Pine Hill

flannelbush, El Dorado bedstraw, Layne's ragwort, vernal pool fairy shrimp, Valley elderberry longhorn beetle, Lahontan cutthroat trout, the Central Valley Distinct Population Segment (DPS) of the steelhead, California tiger salamander, California red-legged frog, mountain yellow-legged frog, the West Coast DPS of the fisher, and Sierra Nevada yellow-legged frog.

Migratory Bird Treaty Act

Migratory birds are protected by the USFWS under the provisions of the Migratory Bird Treaty Act (MBTA) of 1916 as amended (16 U.S.C. 703 et seq.) which governs the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests. The take of all migratory birds is governed by the MBTA's regulation of taking migratory birds for educational, scientific, and recreational purposes and requiring harvest to be limited to levels that prevent over utilization. Executive Order 13186 (signed January 10, 2001) directs each federal agency taking actions that would have or would likely have a negative impact on migratory bird populations to work with USFWS to develop a Memorandum of Understanding to promote the conservation of migratory bird populations. Protocols developed under the Memorandum of Understanding must include the following agency responsibilities:

- Avoid and minimize, to the extent practicable, adverse impacts on migratory bird resources when conducting agency actions.
- Restore and enhance habitat of migratory birds, as practicable.
- Prevent or abate the pollution or detrimental alteration of the environment for the benefit of migratory birds, as practicable.

The Executive Order is designed to assist federal agencies in their efforts to comply with the MBTA; it does not constitute any legal authorization to take migratory birds. Take, under the MBTA, is defined as the action of, or an attempt to, pursue, hunt, shoot, capture, collect, or kill (50 CFR 10.12). The definition includes "intentional" take (take that is the purpose of the activity in question) and "unintentional" take (take that results from, but is not the purpose of, the activity in question).

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (16 U.S.C. 668 et seq.) prohibits the taking or possession of and commerce in bald eagles (*Haliaeetus leucocephalus*) and golden eagles (*Aquila chrysaetos*), with limited exceptions. Under the act, it is a violation to "take, possess, sell, purchase, barter, offer to sell, transport, export or import, at any time or in any manner, any bald eagle commonly known as the American eagle, or golden eagle, alive or dead, or any part, nest, or egg, thereof." Take is defined to include pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest, and disturb. Disturb is further defined as "to agitate or bother a bald

or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available (1) injury to an eagle, (2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or (3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior." Recent revisions to the Bald and Golden Eagle Protection Act authorizes take of bald eagles and golden eagles under the following conditions: (1) where the take is compatible with the preservation of the bald eagle and golden eagle; (2) where the take is necessary to protect an interest in a particular locality; (3) where the take is associated with, but not the purpose of, an otherwise lawful activity; and (4) for individual instances of take, the take cannot be avoided; or (5) for programmatic take, the take is unavoidable even though advanced conservation practices are being implemented (50 CFR 22.26).

Federal Clean Water Act (Section 404)

The objective of the Clean Water Act (CWA; 33 U.S.C. 1251 et seq.) is to restore and maintain the chemical, physical, and biological integrity of the nation's waters. Under Section 404 of the CWA, the U.S. Army Corps of Engineers (USACE) has the authority to regulate activity that could discharge fill or dredge material or otherwise adversely modify wetlands or other waters of the United States. The USACE implements the federal policy embodied in Executive Order 11990, which, when implemented, is intended to result in no net loss of wetland values or function.

Federal Clean Water Act (Section 401)

The State Water Resources Control Board has authority over wetlands through Section 401 of the CWA, as well as the Porter-Cologne Act, California Code of Regulations Section 3831(k), and California Wetlands Conservation Policy. The CWA requires that an applicant for a Section 404 permit (to discharge dredged or fill material into waters of the United States) first obtain a certificate from the appropriate state agency stating that the fill is consistent with the state's water quality standards and criteria. In California, the authority to either grant certification or waive the requirement for permits is delegated by the State Water Resources Control Board to the nine regional boards. The Central Valley Regional Water Quality Control Board is the appointed authority for Section 401 compliance in the project area. A request for certification or waiver is submitted to the regional board at the same time that an application is filed with the USACE.

State Regulations

California Endangered Species Act

The CESA (California Fish and Game Code, Section 2050 et seq.) prohibits the taking of species listed as threatened or endangered under the act, or candidates for listing, except as authorized by state law. Section 2081 of the CESA states that take of an endangered, threatened, or candidate

species may be authorized by CDFW if the impacts of the take are incidental to an otherwise lawful activity, are "minimized and fully mitigated," and do not "jeopardize the continued existence of [the] species." Any mitigation measures imposed under CESA must be measures "roughly proportional in extent to the impact of the authorized taking on the species."

One bird species found within the ORMP Area is protected under the CESA: the state-listed threatened Swainson's hawk (*Buteo swainsoni*). Other listed animal species within the ORMP Area are the state-listed threatened California tiger salamander and giant garter snake (*Thamnophis gigas*).

California Public Resources Code Section 21083.4

This section requires a county to determine (as part of its project review required under the California Environmental Quality Act (CEQA)) whether a project may result in conversion of oak woodlands that will have a significant effect on the environment. If it determines that a project may have a significant effect, a county shall require one or more oak woodlands mitigation alternatives "to mitigate the significant effect of the conversion of oak woodlands." Alternatives include: 1) conserve oak woodlands, 2) plant an appropriate number of replacement trees and maintain those trees for 7 years, 3) contribute to the Oak Woodlands Conservation Fund, or 4) other mitigation measures developed by the County. Plantings shall not fulfill more than one half of the mitigation requirements for a project. Where a county adopts, and a project incorporates, one or more of these mitigation measures, the project is deemed to be in compliance with CEQA as it relates to effects on oaks and oak woodlands.

Fish and Game Code Sections 3503, 3513

Fish and Game Code Section 3503 states that it is unlawful to take, possess, or needlessly destroy the nests or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto. Fish and Game Code Section 3503.5 protects all birds of prey (raptors) and their eggs and nests. Section 3513 states that it is unlawful to take or possess any migratory non-game bird as designated in the MBTA.

Fish and Game Code Sections 3511, 4700, 5050, 5515

The classification of Fully Protected (often abbreviated as CFP) was the state's initial effort in the 1960s to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists were created for fish, mammals, amphibians and reptiles, and birds. The Fish and Game Code sections dealing with Fully Protected species state that these species "may not be taken or possessed at any time and no provision of this code or any other law shall be construed to authorize the issuance of permits or licenses to take any fully protected" species, although take may be authorized for necessary scientific research.

CDFW Streambed Alteration Agreement

Under Sections 1600–1616 of the California Fish and Game Code, the CDFW regulates activities that would alter the flow, bed, channel, or bank of streams and lakes. The limits of CDFW's jurisdiction are defined in the code as the "bed, channel or bank of any river, stream, or lake designated by the department in which there is at any time an existing fish or wildlife resource or from which these resources derive benefit" (Section 1601). In practice, the CDFW usually marks its jurisdictional limit at the top of the stream or bank, or at the outer edge of the riparian vegetation, whichever is wider.

Local Regulations

The County 2004 General Plan contains numerous goals and policies intended to conserve biological resources. A selection of pertinent policies is listed below, including those policies that would be amended under the proposed project.

General Plan Land Use Element

Policy 2.2.2.4: The purpose of the Ecological Preserve (-EP) overlay designation is to identify those properties in public or private ownership which have potential to be established or have been established as habitat preserve areas for rare or endangered plant and animal species and/or critical wildlife habitat and/or natural communities of high quality or of Statewide importance and/or Stream Environment Zones (SEZ) as established in the Tahoe Basin. Ecological preserves may be established by private contract and/or memoranda of understanding affecting interested public agencies.

A. The Ecological Preserve overlay designation shall be combined with a basic land use designation that is appropriate for the area. The overlay will enable the land use densities or building intensities for a discretionary project to be transferred to other lands, clustered, or otherwise mitigated to maintain the Preserve.

B. The implementation strategies for the designated Ecological Preserve overlay lands shall be developed and approved by the Board of Supervisors prior to the designation taking effect. Implementation strategies shall not change the base land use designation.

C. Within the Tahoe Basin, the Ecological Preserve overlay shall apply to SEZ as established by Section 37.3 of the Tahoe Regional Planning Agency Code of Ordinances.

Policy 2.2.2.8: The Important Biological Corridor (-IBC) overlay shall be as set forth in Policy 7.4.2.9. Where the -IBC Overlay is applied to lands that are also subject to the Agricultural District (-A) overlay or that are within the Agricultural Lands (AL) designation, the land use restrictions associated with the -IBC policies will not apply to the extent that the agricultural practices do not interfere with the purposes of the -IBC overlay.

General Plan Conservation and Open Space Element

Policy 7.3.3.1: For projects that would result in the discharge of material to or that may affect the function and value of river, stream, lake, pond, or wetland features, the application shall include a delineation of all such features. For wetlands, the delineation shall be conducted using the U.S. Army Corps of Engineers (USACE) Wetland Delineation Manual.

Policy 7.3.3.3: The County shall develop a database of important surface water features, including lake, river, stream, pond, and wetland resources.

Policy 7.3.3.4: The Zoning Ordinance shall be amended to provide buffers and special setbacks for the protection of riparian areas and wetlands. The County shall encourage the incorporation of protected areas into conservation easements or natural resource protection areas.

Exceptions to riparian and wetland buffer and setback requirements shall be provided to permit necessary road and bridge repair and construction, trail construction, and other recreational access structures such as docks and piers, or where such buffers deny reasonable use of the property, but only when appropriate mitigation measures and Best Management Practices are incorporated into the project. Exceptions shall also be provided for horticultural and grazing activities on agriculturally zoned lands that utilize "best management practices (BMPs)" as recommended by the County Agricultural Commission and adopted by the Board of Supervisors.

Until standards for buffers and special setbacks are established in the Zoning Ordinance, the County shall apply a minimum setback of 100 feet from all perennial streams, rivers, lakes, and 50 feet from intermittent streams and wetlands. These interim standards may be modified in a particular instance if more detailed information relating to slope, soil stability, vegetation, habitat, or other site- or project-specific conditions supplied as part of the review for a specific project demonstrates that a different setback is necessary or would be sufficient to protect the particular riparian area at issue.

For projects where the County allows an exception to wetland and riparian buffers, development in or immediately adjacent to such features shall be planned so that impacts on the resources are minimized. If avoidance and minimization are not feasible, the County shall make findings, based on documentation provided by the project proponent, that avoidance and minimization are infeasible.

Policy 7.3.3.5: Rivers, streams, lakes and ponds, and wetlands shall be integrated into new development in such a way that they enhance the aesthetic and natural character of the site while disturbance to the resource is avoided or minimized and fragmentation is limited.

Policy 7.4.1.1: The County shall continue to provide for the permanent protection of the eight sensitive plant species known as the Pine Hill endemics and their habitat through the establishment and management of ecological preserves consistent with County Code Chapter 17.71 and the USFWS's *Gabbro Soil Plants for the Central Sierra Nevada Foothills Recovery Plan* (USFWS 2002).

Policy 7.4.1.2: Private land for preserve sites will be purchased only from willing sellers.

Policy 7.4.1.3: Limit land uses within established preserve areas to activities deemed compatible. Such uses may include passive recreation, research and scientific study, and education. In conjunction with use as passive recreational areas, develop a rare plant educational and interpretive program.

Policy 7.4.1.4: Proposed rare, threatened, or endangered species preserves, as approved by the County Board of Supervisors, shall be designated Ecological Preserve (-EP) overlay on the General Plan land use map.

Policy 7.4.1.5: Species, habitat, and natural community preservation/conservation strategies shall be prepared to protect special-status plant and animal species and natural communities and habitats when discretionary development is proposed on lands with such resources unless it is determined that those resources exist, and either are or can be protected, on public lands or private Natural Resource lands.

Policy 7.4.1.6: All development projects involving discretionary review shall be designed to avoid disturbance or fragmentation of important habitats to the extent reasonably feasible. Where avoidance is not possible, the development shall be required to fully mitigate the effects of important habitat loss and fragmentation. Mitigation shall be defined in the Integrated Natural Resources Management Plan (INRMP) (see Policy 7.4.2.8 and Implementation Measure CO-M).

The County Agricultural Commission, Plant, and Wildlife Technical Advisory Committee, representatives of the agricultural community, academia, and other stakeholders shall be involved and consulted in defining the important habitats of the County and in the creation and implementation of the INRMP.

Policy 7.4.1.7: The County shall continue to support the Noxious Weed Management Group in its efforts to reduce and eliminate noxious weed infestations to protect native habitats and to reduce fire hazards.

Policy 7.4.2.1: To the extent feasible in light of other General Plan policies and to the extent permitted by State law, the County of El Dorado will protect identified critical fish and wildlife habitat, as identified on the Important Biological Resources Map maintained at the Planning Department, through any of the following techniques: utilization of open space, Natural Resource land use designation, clustering, large lot design, setbacks, etc.

Policy 7.4.2.2: Where critical wildlife areas and migration corridors are identified during review of projects, the County shall protect the resources from degradation by requiring all portions of the project site that contain or influence said areas to be retained as non-disturbed natural areas through mandatory clustered development on suitable portions of the project site or other means such as density transfers if clustering cannot be achieved. The setback distance for designated or protected migration corridors shall be determined as part of the project's environmental analysis. The intent and emphasis of the Open Space land use designation and of the non-disturbance policy is to ensure continued viability of contiguous or interdependent habitat areas and the preservation of all movement corridors between related habitats. The intent of mandatory clustering is to provide a mechanism for natural resource protection while allowing appropriate development of private property. Horticultural and grazing projects on agriculturally designated lands are exempt from the restrictions placed on disturbance of natural areas when utilizing "BMPs" recommended by the County Agricultural Commission and adopted by the Board of Supervisors when not subject to Policy 7.1.2.7.

Policy 7.4.2.3: Consistent with Policy 9.1.3.1 of the Parks and Recreation Element, low impact uses such as trails and linear parks may be provided within river and stream buffers if all applicable mitigation measures are incorporated into the design.

Policy 7.4.2.4: Establish and manage wildlife habitat corridors within public parks and natural resource protection areas to allow for wildlife use. Recreational uses within these areas shall be limited to those activities that do not require grading or vegetation removal.

Policy 7.4.2.5: Setbacks from all rivers, streams, and lakes shall be included in the Zoning Ordinance for all ministerial and discretionary development projects.

Policy 7.4.2.6: El Dorado County Biological Community Conservation Plans shall be required to protect, to the extent feasible, rare, threatened, and endangered plant species only when existing Federal or State plans for non-jurisdictional areas do not provide adequate protection.

Policy 7.4.2.7: The County shall form a Plant and Wildlife Technical Advisory Committee to advise the Planning Commission and Board of Supervisors on plant and wildlife issues, and the committee should be formed of local experts, including agricultural, fire protection, and forestry representatives, who will consult with other experts with special expertise on various plant and wildlife issues, including representatives of regulatory agencies. The Committee shall formulate objectives which will be reviewed by the Planning Commission and Board of Supervisors.

Policy 7.4.2.8: Develop within five years and implement an Integrated Natural Resources Management Plan (INRMP) that identifies important habitat in the County and establishes a program for effective habitat preservation and management. The INRMP shall include the following components:

A. Habitat Inventory. This part of the INRMP shall inventory and map the following important habitats in El Dorado County:

   1. Habitats that support special-status species;
   2. Aquatic environments including streams, rivers, and lakes;
   3. Wetland and riparian habitat;
   4. Important habitat for migratory deer herds; and
   5. Large expanses of native vegetation.

   The County should update the inventory every three years to identify the amount of important habitat protected, by habitat type, through County programs and the amount of important habitat removed because of new development during that period. The inventory and mapping effort shall be

developed with the assistance of the Plant and Wildlife Technical Advisory Committee, CDFG, and USFWS. The inventory shall be maintained and updated by the County Planning Department and shall be publicly accessible.

B. Habitat Protection Strategy. This component shall describe a strategy for protecting important habitats based on coordinated land acquisitions (see item D below) and management of acquired land. The goal of the strategy shall be to conserve and restore contiguous blocks of important habitat to offset the effects of increased habitat loss and fragmentation elsewhere in the county.

   The Habitat Protection Strategy should be updated at least once every five years based on the results of the habitat monitoring program (item F below). Consideration of wildlife movement will be given by the County on all future 4- and 6-lane roadway construction projects. When feasible, natural undercrossings along proposed roadway alignments that could be utilized by terrestrial wildlife for movement will be preserved and enhanced.

C. Mitigation Assistance. This part of the INRMP shall establish a program to facilitate mitigation of impacts to biological resources resulting from projects approved by the County that are unable to avoid impacts on important habitats. The program may include development of mitigation banks, maintenance of lists of potential mitigation options, and incentives for developers and landowner participation in the habitat acquisition and management components of the INRMP.

D. Habitat Acquisition. Based on the Habitat Protection Strategy and in coordination with the Mitigation Assistance program, the INRMP shall include a program for identifying habitat acquisition opportunities involving willing sellers. Acquisition may be by state or federal land management agencies, private land trusts or mitigation banks, the County, or other public or private organizations. Lands may be acquired in fee or protected through acquisition of a conservation easement designed to protect the core habitat values of the land while allowing other uses by the fee owner. The program should identify opportunities for partnerships between the County and other organizations for habitat acquisition and management. In evaluating proposed acquisitions, consideration will be given to site specific features (e.g., condition and threats to habitat, presence of special-status species), transaction related features (e.g., level of protection gained, time frame for purchase completion, relative costs), and regional considerations (e.g., connectivity with adjacent protected lands and important habitat, achieves multiple agency and community benefits). Parcels that include important habitat and are

located generally to the west of the Eldorado National Forest should be given priority for acquisition.

Priority will also be given to parcels that would preserve natural wildlife movement corridors such as crossing under major roadways (e.g., U.S. Highway 50 and across canyons). All land acquired shall be added to the Ecological Preserve overlay area.

E. Habitat Management. Each property or easement acquired through the INRMP should be evaluated to determine whether the biological resources would benefit from restoration or management actions. Examples of the many types of restoration or management actions that could be undertaken to improve current habitat conditions include: removal of nonnative plant species, planting native species, repair and rehabilitation of severely grazed riparian and upland habitats, removal of culverts and other structures that impede movement by native fishes, construction of roadway under and overcrossing that would facilitate movement by terrestrial wildlife, and installation of erosion control measures on land adjacent to sensitive wetland and riparian habitat.

F. Monitoring. The INRMP shall include a habitat monitoring program that covers all areas under the Ecological Preserve overlay together with all lands acquired as part of the INRMP. Monitoring results shall be incorporated into future County planning efforts so as to more effectively conserve and restore important habitats. The results of all special-status species monitoring shall be reported to the CNDDB. Monitoring results shall be compiled into an annual report to be presented to the Board of Supervisors.

G. Public Participation. The INRMP shall be developed with and include provisions for public participation and informal consultation with local, state, and federal agencies having jurisdiction over natural resources within the county.

H. Funding. The County shall develop a conservation fund to ensure adequate funding of the INRMP, including habitat maintenance and restoration. Funding may be provided from grants, mitigation fees, and the County general fund. The INRMP annual report described under item F above shall include information on current funding levels and shall project anticipated funding needs and anticipated and potential funding sources for the following five years.

Policy 7.4.2.9: The Important Biological Corridor (-IBC) overlay shall apply to lands identified as having high wildlife habitat values because of extent, habitat function, connectivity, and other factors. Lands located within the overlay district

shall be subject to the following provisions except that where the overlay is applied to lands that are also subject to the Agricultural District (-A) overlay or that are within the Agricultural Lands (AL) designation, the land use restrictions associated with the IBC policies will not apply to the extent that the agricultural practices do not interfere with the purposes of the -IBC overlay.

- Increased minimum parcel size;
- Higher canopy-retention standards and/or different mitigation standards/thresholds for oak woodlands;
- Lower thresholds for grading permits;
- Higher wetlands/riparian retention standards and/or more stringent mitigation requirements for wetland/riparian habitat loss;
- Increased riparian corridor and wetland setbacks;
- Greater protection for rare plants (e.g., no disturbance at all or disturbance only as recommended by U.S. Fish and Wildlife Service/California Department of Fish and Game);
- Standards for retention of contiguous areas/large expanses of other (non-oak or non-sensitive) plant communities;
- Building permits discretionary or some other type of "site review" to ensure that canopy is retained;
- More stringent standards for lot coverage, floor area ratio (FAR), and building height; and
- No hindrances to wildlife movement (e.g., no fences that would restrict wildlife movement).

The standards listed above shall be included in the Zoning Ordinance. Wildland Fire Safe measures are exempt from this policy, except that Fire Safe measures will be designed insofar as possible to be consistent with the objectives of the Important Biological Corridor.

Policy 7.4.4.1: The Natural Resource land use designation shall be used to protect important forest resources from uses incompatible with timber harvesting.

Policy 7.4.4.2: Through the review of discretionary projects, the County, consistent with any limitations imposed by State law, shall encourage the protection, planting, restoration, and regeneration of native trees in new developments and within existing communities.

Policy 7.4.4.3: Utilize the clustering of development to retain the largest contiguous areas possible in wildland (undeveloped) status.

Policy 7.4.4.4: For all new development projects (not including agricultural cultivation and actions pursuant to an approved Fire Safe Plan necessary to protect existing structures, both of which are exempt from this policy) that would result in soil disturbance on parcels that (1) are over an acre and have at least 1 percent total canopy cover or (2) are less than an acre and have at least 10 percent total canopy cover by woodlands habitats as defined in this General Plan and determined from baseline aerial photography or by site survey performed by a qualified biologist or licensed arborist, the County shall require one of two mitigation options: (1) the project applicant shall adhere to the tree canopy retention and replacement standards described below; or (2) the project applicant shall contribute to the County's Integrated Natural Resources Management Plan (INRMP) conservation fund described in Policy 7.4.2.8.

Option A[1]

The County shall apply the following tree canopy retention standards:

Percent Existing Canopy Cover	Canopy Cover to be Retained
80–100	60% of existing canopy
60–79	70% of existing canopy
40–59	80% of existing canopy
20–39	85% of existing canopy
10–19	90% of existing canopy
1–9 for parcels > 1 acre	90% of existing canopy

Under Option A, the project applicant shall also replace woodland habitat removed at 1:1 ratio. Impacts on woodland habitat and mitigation requirements shall be addressed in a Biological Resources Study and Important Habitat Mitigation Plan as described in Policy 7.4.2.8. Woodland replacement shall be based on a formula, developed by the County, that accounts for the number of trees and acreage affected.

[1] This is currently the only option available. The rules for compliance with this option are expressed in the *Interim Interpretive Guidelines for El Dorado County General Plan Policy 7.4.4.4 (Option A)*, as amended October 12, 2007.

Option B[2]

The project applicant shall provide sufficient funding to the County's INRMP conservation fund, described in Policy 7.4.2.8, to fully compensate for the impact to oak woodlands habitat. To compensate for fragmentation as well as habitat loss, the preservation mitigation ratio shall be 2:1 and based on the total woodland acreage on site directly impacted by habitat loss and indirectly impacted by habitat fragmentation. The costs associated with acquisition, restoration, and management of the habitat protected shall be included in the mitigation fee. Impacts on woodland habitat and mitigation requirements shall be addressed in a Biological Resources Study and Important Habitat Mitigation Plan as described in Policy 7.4.2.8.

Policy 7.4.4.5: Where existing individual or a group of oak trees are lost within a stand, a corridor of oak trees shall be retained that maintains continuity between all portions of the stand. The retained corridor shall have a tree density that is equal to the density of the stand.

Policy 7.4.5.1: A tree survey, preservation, and replacement plan shall be required to be filed with the County prior to issuance of a grading permit for discretionary permits on all high-density residential, multifamily residential, commercial, and industrial projects. To ensure that proposed replacement trees survive, a mitigation monitoring plan should be incorporated into discretionary projects when applicable and shall include provisions for necessary replacement of trees.

Policy 7.4.5.2: It shall be the policy of the County to preserve native oaks wherever feasible, through the review of all proposed development activities where such trees are present on either public or private property, while at the same time recognizing individual rights to develop private property in a reasonable manner. To ensure that oak tree loss is reduced to reasonable acceptable levels, the County shall develop and implement an Oak Tree Preservation Ordinance that includes the following components:

A. Oak Tree Removal Permit Process. Except under special exemptions, a tree removal permit shall be required by the County for removal of any native oak tree with a single main trunk of at least 6 inches diameter at breast height (dbh), or a multiple trunk with an aggregate of at least 10 inches dbh. Special exemptions when a tree removal permit is not needed shall include removal of

[2] The County has not adopted an INRMP, so Option B is not operative.

trees less than 36 inches dbh on 1) lands in Williamson Act Contracts, Farmland Security Zone Programs, Timber Production Zones, Agricultural Districts, designated Agricultural Land (AL), and actions pursuant to a Fire Safe plan; 2) all single family residential lots of one acre or less that cannot be further subdivided; 3) when a native oak tree is cut down on the owner's property for the owner's personal use; and 4) when written approval has been received from the County Planning Department. In passing judgment upon tree removal permit applications, the County may impose such reasonable conditions of approval as are necessary to protect the health of existing oak trees, the public and the surrounding property, or sensitive habitats. The County Planning Department may condition any removal of native oaks upon the replacement of trees in kind. The replacement requirement shall be calculated based upon an inch for inch replacement of removed oaks. The total of replacement trees shall have a combined diameter of the tree(s) removed. Replacement trees may be planted on site or in other areas to the satisfaction of the County Planning Department. The County may also condition any tree removal permit that would affect sensitive habitat (e.g., valley oak woodland), on preparation of a Biological Resources Study and an Important Habitat Mitigation Program as described in Policy 7.4.1.6. If an application is denied, the County shall provide written notification, including the reasons for denial, to the applicant.

B. Tree Removal Associated with Discretionary Project. Any person desiring to remove a native oak shall provide the County with the following as part of the project application:

- A written statement by the applicant or an arborist stating the justification for the development activity, identifying how trees in the vicinity of the project or construction site will be protected and stating that all construction activity will follow approved preservation methods;
- A site map plan that identifies all native oaks on the project site; and
- A report by a certified arborist that provides specific information for all native oak trees on the project site.

C. Commercial Firewood Cutting. Fuel wood production is considered commercial when a party cuts firewood for sale or profit. An oak tree removal permit shall be required for commercial firewood cutting of any native oak tree. In reviewing a permit application, the Planning Department shall consider the following:

- Whether the trees to be removed would have a significant negative environmental impact;

- Whether the proposed removal would not result in clear-cutting, but will result in thinning or stand improvement;
- Whether replanting would be necessary to ensure adequate regeneration;
- Whether the removal would create the potential for soil erosion;
- Whether any other limitations or conditions should be imposed in accordance with sound tree management practices; and
- What the extent of the resulting canopy cover would be.

D. Penalties. Fines will be issued to any person, firm, or corporation not exempt from the ordinance and damages or destroys an oak tree without first obtaining an oak tree removal permit. Fines may be as high as three times the current market value of replacement trees as well as the cost of replacement, and/or replacement of up to three times the number of trees required by the ordinance. If oak trees are removed without a tree removal permit, the County Planning Department may choose to deny or defer approval of any application for development of that property for a period of up to 5 years. All monies received for replacement of illegally removed or damaged trees shall be deposited in the County's Integrated Natural Resources Management Plan (INRMP) conservation fund.

Policy 7.6.1.1: The General Plan land use map shall include an Open Space land use designation. The purpose of this designation is to implement the goals and objectives of the Land Use and the Conservation and Open Space Elements by serving one or more of the purposes stated below. In addition, the designations on the land use map for Rural Residential and Natural Resource areas are also intended to implement said goals and objectives. Primary purposes of open space include:

A. Conserving natural resource areas required for the conservation of plant and animal life including habitat for fish and wildlife species; areas required for ecologic and other scientific study purposes; rivers, streams, banks of rivers and streams and watershed lands;

B. Conserving natural resource lands for the managed production of resources including forest products, rangeland, agricultural lands important to the production of food and fiber; and areas containing important mineral deposits;

C. Maintaining areas of importance for outdoor recreation including areas of outstanding scenic, historic and cultural value; areas particularly suited for park and recreation purposes including those providing access to lake shores, beaches and rivers and streams; and areas which serve as links between major recreation

and open space reservations including utility easements, banks of rivers and streams, trails and scenic highway corridors;

D. Delineating open space for public health and safety including, but not limited to, areas which require special management or regulation because of hazardous or special conditions such as earthquake fault zones, unstable soil areas, flood plains, watersheds, areas presenting high fire risks, areas required for the protection of water quality and water reservoirs, and areas required for the protection and enhancement of air quality; and

E. Providing for open spaces to create buffers which may be landscaped to minimize the adverse impact of one land use on another.

Policy 7.6.1.2: The County will provide for Open Space lands through:

A. The designation of land as Open Space;

B. The designation of land for low-intensity land uses as provided in the Rural Residential and Natural Resource land use designations;

C. Local implementation of the Federal Emergency Management Agency's National Flood Insurance Program;

D. Local implementation of the State Land Conservation Act Program; and

E. Open space land set aside through Planned Developments (PDs).

Policy 7.6.1.3: The County shall implement Policy 7.6.1.1 through zoning regulations and the administration thereof. It is intended that certain districts and certain requirements in zoning regulations carry out the purposes set forth in Policy 7.6.1.1 as follows:

A. The Open Space (OS) Zoning District is consistent with and shall implement the Open Space designation of the General Plan land use map and all other land use designations.

B. The Limited Agricultural (LA), Agricultural Grazing (AG), Planned Agricultural (PA), Rural Lands (RA), Forest Resource (FR), and Timber Production Zone (TPZ) zoning districts are consistent with Policy 7.6.1.1 and serve one or more of the purposes set forth therein.

Note: this policy was changed by the TGPA approved in December 2015 to correspond to the new Agriculture zoning categories.

C. Zoning regulations shall provide for setbacks from all flood plains, streams, lakes, rivers and canals to maintain Purposes A, B, C, and D set forth in Policy 7.6.1.1.

D. Zoning regulations shall provide for maintenance of permanent open space in residential, commercial, industrial, agricultural, and residential agricultural zone districts based on standards established in those provisions of the County Code. The regulations shall minimize impacts on wetlands, flood plains, streams, lakes, rivers, canals, and slopes in excess of 30 percent and shall maintain Purposes A, B, C, and D in Policy 7.6.1.1.

E. Landscaping requirements in zoning regulations shall provide for vegetative buffers between incompatible land uses in order to maintain Purpose E in Policy 7.6.1.1.

F. Zoning regulations shall provide for Mineral Resource Combining Zone Districts and/or other appropriate mineral zoning categories which shall be applied to lands found to contain important mineral deposits if development of the resource can occur in compliance with all other policies of the General Plan. Those regulations shall maintain Purposes A, B, C, D, and E of Policy 7.6.1.1.

Policy 7.6.1.4: The creation of new open space areas, including Ecological Preserves, common areas of new subdivisions, and recreational areas, shall include wildfire safety planning.

El Dorado County Zoning Ordinance

General Development Standards

Chapter 130.30 of the Zoning Ordinance establishes the County's general development standards for development within all zone districts. These include requirements for minimum size and width of lots, setbacks, height limits, fences and walls (including retaining walls), hillside development, and gates.

Section 130.30.030.G identifies setbacks required for the protection of wetlands and sensitive riparian habitat. For ministerial project permits, the minimum required setbacks are 25 feet from any intermittent stream, wetland or sensitive riparian habitat and 50 feet from any perennial lake, river or stream. For projects subject to discretionary development approvals, setbacks must sufficient to reduction impacts to wetlands and sensitive riparian habitat to a less than significant level, as determined by a biological resource evaluation. In addition, Table 130.30.030.G.1 establishes specific riparian setbacks from major lakes, reservoirs, rivers, streams, and creeks.

Section 130.30.060 regulates development and creation of new lots on land containing slope gradients of 30% or greater. Specifically, this section prohibits development on such slopes with a vertical height of 50 or more feet and requires that any developed allowed on slopes 30% or greater must be subject to issuane of a grading or building permit and include an erosion and sediment control plan. Exceptions to these restrictions are provided where reasonable use of an existing lot or parcel would otherwise be denied.

Ecological Preserve

Chapter 130.71 of the Zoning Ordinance establishes the County's ecological preserve fee program. The program implements General Plan Policy 7.4.1.1, which requires the permanent protection of the eight sensitive plant species known as the Pine Hill endemics and their gabbro soil-based habitat through the establishment and management of ecological preserves. The protected plants are as follows (see Table 6-3 for their sensitivity levels).

- El Dorado bedstraw (*Galium californicum* ssp. *sierrae*)
- Layne's butterweed (*Senecio layneae*)
- Pine Hill ceanothus (*Ceanothus roderickii*)
- Pine Hill flannel bush (*Fremontodendron californicum* ssp. *decumbens*)
- Stebbins' morning glory (*Calystegia stebbinsii*)
- Bisbee Peak rush-rose (*Helianthemum suffrutescens*)
- El Dorado mule ears (*Wyethia reticulata*)
- Red Hills soaproot (*Chlorogalum grandiflorum*)

Acquisition and restoration of rare plant habitat must be equal to 1.5 times the number of acres developed. Off-site mitigation must be conducted according to guidelines established by the County and is subject to review by representatives of USFWS and CDFW. More commonly, development relies on the Zoning Ordinance's in-lieu fee option. That option collects a per-unit fee from new development that is used to fund the local cost of the Rare Plant Mitigation Program. The related Pine Hill Preserve is discussed earlier in Section 6.1.

6.3 IMPACTS

This EIR analyzes whether the project would have the potential to adversely affect existing biological resources. The project involves amendments to several General Plan objectives, policies, and implementation measures related to biological resources and adoption of the ORMP. It does not propose any site-specific development activities. This analysis focuses on the potential reasonably foreseeable impacts of future development that could occur as a result of

implementation of the General Plan in the context of the proposed policies and ORMP. A summary of the extent to which the current General Plan, through its policies and pattern of land use distribution, has or is expected to have an impact on biological resources is provided to inform this analysis.

All impacts are considered under two scenarios: (1) the level of General Plan buildout assumed to be achieved by the planning horizon year of 2025 and (2) the buildout of the General Plan, anticipated by 2035. As discussed in Chapter 4, Methodology and Assumptions, this EIR relies on the same growth and development projections used for the targeted General Plan amendment-Zoning Ordinance update (TGPA-ZOU). Chapter 4 also describes the data sources and methods of data analysis used to evaluate the potential effects of the anticipated development in both the short-term and long-term scenarios.

Significance Criteria

In accordance with Appendix G of the CEQA Guidelines, the project would be considered to have a significant effect if it would result in any of the conditions listed below.

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.
- 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 Wildlife or U.S. Fish and Wildlife Service.
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means.
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

As reflected in the 2004 General Plan EIR and the TGPA-ZOU EIR, El Dorado County uses the following significance thresholds to evaluate whether a project would result in a significant effect as defined in Appendix G of the CEQA Guidelines:

- Result in the loss and fragmentation of wildlife habitat.
- Have a substantial adverse effect on special-status species.
- Have a substantial adverse effect on wildlife movement.
- Result in the removal, degradation, and fragmentation of sensitive habitats.

There are no adopted habitat conservation plans within the Planning Area. USFWS's Gabbro Soil Plants for the Central Sierra Nevada Foothills Recovery Plan (USFWS 2002) applies to the Pine Hill Preserves, and the proposed project would require consistency with the Recovery Plan to the extent feasible. The Pine Hill Preserve Management Plan identifies management strategies and tasks, but is not an adopted habitat conservation plan. Therefore, consistency with adopted plans and policies for habitat protection are not evaluated further in this EIR.

Impact BIO-1

Result in the loss and fragmentation of wildlife habitat.

Determination: Significant and Unavoidable

Fragmentation and isolation of plant and wildlife populations can affect wildlife movement and dispersal as well as seed dispersal and movement and dispersal of plant pollinators. These may cause extinction of local populations as a result of two processes: (1) reduction in total habitat area, which reduces effective population sizes; and (2) isolation of local populations, which affects dispersal and immigration rates.

2004 General Plan EIR Conclusions

The 2004 General Plan EIR (El Dorado County 2004) examined the General Plan's potential to impact habitats within the County and determined the effects would be substantial.

> Development under the General Plan would result in a substantial increase in urban development and population in the western foothill region of the county. This region supports a number of native habitats that are important to wildlife. Much of the native habitat that exists would be substantially reduced by impacts associated with adoption of the General Plan.

The 2004 General Plan EIR's determination of the extent of impacts on habitats was based on the estimated land use intensity (high, medium, or low) of the General Plan's components. It described the approach and results as follows :

> Impacts are expected to be highest in areas designated as high-intensity land uses, because buildout of land under these designations would likely result in [habitat] fragmentation and loss of the majority of the existing habitat. Medium-intensity land uses would also result in removal and fragmentation of existing habitat, but to a lesser extent than high-intensity land uses. As a result, some habitats would be expected to continue to be viable, but the quality would be diminished compared with keeping the habitat in an undisturbed condition. Low-intensity land uses would have little or no effect on existing biological resources because, in most areas, the habitats would not be substantially altered.
>
> Biological diversity is reduced when natural habitats are converted for urban, suburban and agricultural uses. This reduction is compounded by the fragmentation of contiguous natural areas into an increasing number of smaller fragments, each of which may be too small to support viable populations of all the original inhabitants. Habitat removal and fragmentation can result from parceling of the landscape into smaller lots through subdivision and subsequent grading (particularly mass grading) and development of building pads, landscaping, roads, and infrastructure.

Considering the intensity of development that would be allowable under the General Plan and the reduction in impacts that would result from implementation of its policies, the 2004 General Plan EIR (El Dorado County 2004) concluded that the General Plan would have a significant impact:

> The policies and implementation measures included in the Open Space and Conservation Element for the [General Plan] would provide greater protection for wildlife habitat than would the measures the other three equal-weight alternatives [to the General Plan]. In addition, the land use plan and policies for this alternative would be more effective than those for the other alternatives at limiting urban sprawl, which would result in less wildlife habitat being adversely affected. Assuming that the County successfully develops and enforces the measures in the implementation program related to habitat protection, impacts could be reduced further through mitigation. However, the degree to which the implementation measures and policies would offset impacts on wildlife habitat is difficult to predict. In general, the policies serve more to guide the County in minimizing impacts when feasible methods exist than to ensure protection. Mitigation to ensure no net loss of important habitat would be

developed, but there are no current assurances that implementation of such mitigation would be required by the County. As under the other equal-weight alternatives, a substantial amount of compensatory mitigation (e.g., habitat purchased by the County to be preserved in perpetuity) would be needed in addition to avoidance and minimization measures to reduce this impact below the significance threshold. This impact is considered significant.

The 2004 General Plan EIR identified five mitigation measures for this impact and concluded that impacts would be reduced, but not to a less-than-significant level "because the extent of the habitat fragmentation and habitat loss would be so severe that the proposed avoidance and compensatory mitigation could not fully mitigate the impact" (El Dorado County 2004). The impact was therefore found to be significant and unavoidable.

TGPA-ZOU EIR Conclusions

The TGPA-ZOU EIR examined the potential for those General Plan amendments and updates to the Zoning Ordinance to impact habitats within the County and determined the provisions in the TGPA-ZOU related to the following uses could result in significant impacts:

- Infill uses;
- Agricultural and Timber Resource Lodging uses;
- Public Utility Services Facilities authorized in residential zones upon approval of a CUP;
- Ski Area, Large Amusement Complex, and Hotel or Motel uses; and
- Allowing intensive land uses in Planned Agricultural, Rural Lands, and Resources zones (e.g., Feed and Farm Supply Store; Industrial, General; Off-Road Vehicle Recreation Area or Ski Area), which could require the conversion of a substantial area whereby most or all natural habitat must be removed in order to operate as designed.

General Plan Policy 7.2.1.1 was amended regarding restrictions on development or disturbance on slopes over 30%, including but not limited to a prohibition (subject to exceptions) on development or disturbance where special-status species habitat is present. Although the County adopted mitigation measures for the TGPA-ZOU impacts to biological resources, which consisted of further modifications to the General Plan and Zoning Ordinance, the TGPA-ZOU concluded that impacts related to loss and fragmentation of wildlife habitat would be significant and unavoidable.

Project Impacts

The proposed project would not alter the land use or zoning designations of any property, and would not alter the allowable land uses or density and/or intensity of land use development projects. Thus, the project would not alter land use development locations, types of land uses throughout the county, or the growth and development projections for the county. However, the project would modify the requirements for evaluation and mitigation of impacts to biological resources and this analysis considers whether continued buildout of the General Plan land uses under the proposed biological resources policies and ORMP would result in a significant loss of habitat or a significant amount of habitat fragmentation.

Oak Resources Management Plan

Based on the assumptions and methodology described in Chapter 4, potential oak woodlands conversion resulting from projected development in the County over the study period is presented in Table 6-6. In calculating the total potential oak woodlands conversion, it was assumed that all of the oak woodlands on parcels projected to be developed would be impacted by that development. In other words, the oak woodlands conversion acreage assumes that no on-site oak woodlands retention would occur. Therefore, the conversion acreage totals likely overestimate potential impacts. For example, the FRAP data indicates that there is a total of 93,299 acres of oak woodlands within parcels that are characterized by the County Assessor's data as developed (CAL FIRE 2015). This indicates that parcel development does not necessarily result in a complete loss of the oak woodlands habitat on a given parcel.

Table 6-6
Acreage of Oak Woodlands Types Potentially Converted under General Plan Buildout Scenarios

Oak Woodlands Type	Acreage in ORMP Area	Projected Land Cover Conversion under General Plan Buildout (2025)	Projected Land Cover Conversion under General Plan Buildout (2035)*
Blue oak woodland	46,521	1,642	2,469
Blue oak-foothill pine	64,740	1,689	2,813
Coastal oak woodland	2	0	0
Montane hardwood	98,930**	423	733
Montane hardwood-conifer	32,643**	8	26
Valley oak woodland	3,970	247	401
Total	**246,806**	**4,009**	**6,442**

* Includes land cover type conversion projected to occur through 2025.

** Acreages for montane hardwood and montane hardwood-conifer represent only those areas within the ORMP Area and therefore differ from those presented in Table 6-15, which represents acreage totals for the whole County.

Oak woodlands loss and fragmentation would occur as properties that currently support oak woodlands habitat are developed. Under the proposed ORMP, applicants for such development projects would be required to have an oak resources technical report prepared, meeting the content and qualifications requirements identified in the ORMP. The County would use the information provided in the technical report to evaluate the extent of oak resource impacts. Project applicants would also be required to provide a mitigation plan meeting the ORMP requirements. Mitigation could include on-site and/or off-site conservation (through a conservation easement), replanting, and/or payment of an in-lieu fee. The amount of the fee and mechanisms by which it would be implemented are established in the Oak Resources In-Lieu Fee Nexus Study provided in Appendix C, and the information presented to the BOS to inform their policy decisions regarding the in-lieu fee is included in the background memos provided in Appendix E.

Mitigation would occur at the ratios established in the ORMP and dependent on the extent of woodland impact. Finally, applicants for development projects would be required to provide for monitoring of the mitigation sites (whether on site or off site). Monitoring and reporting would be required for newly planted trees for a period of 7 years from the date of planting, and additional new planting would be required to replace any trees that do not survive during the monitoring period. Annual reports to the County would be required documenting tree planting status and a final report to the County documenting successful completion of the tree planting effort would be required at the end of the 7-year monitoring period. It will be clarified in the Final ORMP that all conservation easements established as a component of oak resources mitigation will be monitored and that monitoring reports will be required to be submitted to the County annually.

The proposed ORMP does not require a minimum amount of on-site retention of oak resources. Rather, it requires higher mitigation ratios where lesser levels of on-site retention are proposed. A project that would retain at least 50% of the on-site oak woodlands would be required to mitigate for loss of oak woodlands at a 1:1 ratio; a project that would retain at least 25% of the on-site oak woodlands would be required to mitigate for loss of oak woodlands at a 1.5:1 ratio; and a project that would retain less than 25% of the on-site oak woodlands would be required to mitigate at a 2:1 ratio. It is expected that this approach would encourage landowners to retain oak woodlands on site. However it is not feasible to determine specific levels of on-site retention as part of this programmatic analysis, thus, as discussed previously, this analysis assumes that no on-site retention would occur.

Current General Plan Policy 7.4.4.4 identifies two mitigation options for impacts to oak woodlands: (1) retention and replacement of impacted oak canopy (woodland) at a 1:1 ratio or (2) payment of an in-lieu fee at a 2:1 ratio. Although the current policy anticipates an in-lieu fee option (Option B), this option is inoperative at this time. The proposed ORMP modifies the

requirements of Policy 7.4.4.4 by consolidating the two mitigation options in Policy 7.4.4.4 into one approach which would incentivize oak woodlands retention by ensuring that the per-acre cost for mitigation is greater where lesser levels of retention are achieved. Although the ORMP does not require on-site retention, mitigation would be required for impacts to oak woodland. As outlined in the ORMP, mitigation may include conservation of existing oak woodlands, replacement tree planting (of up to half of the required mitigation total), and/or payment of an in-lieu fee to be used for conserving oak woodlands or replacement plantings.

Although mitigation would be required for impacts to oak woodland, buildout of the General Plan through 2025 and 2035 has the potential to cause a significant amount of oak woodlands habitat loss and fragmentation, as discussed in the conclusions section of this Impact analysis, below. The impacts include the 4,009 acres of oak woodlands that would be lost under buildout of the General Plan through 2025, the additional 2,433 acres that would be lost under buildout of the General Plan through 2035, and the additional acres that would be lost and for which mitigation would not be required based on the following exemptions discussion.

Exemptions

The ORMP proposes to exempt specific project types/actions from the requirement to mitigate for oak resource impacts. To evaluate the effect of some of these exemptions on oak woodlands, a geographic information systems (GIS)-based analysis was conducted comparing the extent of oak woodlands vegetation communities and available GIS datasets identifying the locations of actions which would be exempt from oak woodlands mitigation requirements. Some actions that are exempt from oak resources mitigation (e.g., impacts associated with emergency firefighting operations) are not quantifiable in GIS and are therefore discussed qualitatively. Impacts to individual native oak trees outside of oak woodlands are also not quantifiable in GIS so are also discussed qualitatively.

The spatial extent of the GIS analysis conducted to evaluate the effect of oak woodlands mitigation exemptions is limited to the ORMP Area, which is the area within El Dorado County below 4,000 feet elevation and excluding the City of Placerville. The ORMP Area encompasses approximately 560,000 acres. Additionally, the spatial extent of the GIS analysis included only lands that would be subject to mitigation requirements in the ORMP Area (County-owned or privately owned land). Oak woodlands distribution data analyzed for all exemptions presented in the following sections was derived from the 2015 FRAP vegetation coverage dataset made available by the CAL FIRE (CAL FIRE 2015). For this analysis, oak woodlands areas are those identified as blue oak woodland, blue oak-foothill pine, coastal oak woodland, montane hardwood, montane hardwood-conifer, and valley oak woodland in the 2015 FRAP vegetation coverage dataset.

The following sections present the methods used in evaluating the effect of the different ORMP exemptions on impacts to oak woodlands, including a discussion of data sources and any assumptions made in the analysis. Analysis results and discussions of the effects of each exemption are also presented in the following sections. Each exemption is evaluated individually in the following sections, while the conclusion section considers the impact comprehensively.

Single-Family Lot Exemption

As presented in the ORMP, projects or actions occurring on single-family residential lots of 1 acre or less that cannot be further subdivided are exempted from oak woodlands mitigation requirements. To evaluate the effect of this exemption, the FRAP vegetation coverage data was overlaid on the El Dorado County parcel dataset in GIS. Parcels that included any amount of oak woodlands coverage were selected. The selected subset of parcels with oak woodlands coverage was then queried to determine size (<= 1 acre) and development status (vacant or developed). Determination of development status was based on an assigned value in the County's parcel dataset which identified undeveloped (vacant) parcels. All undeveloped parcels measuring 1 acre or less and with some level of oak woodlands coverage were then evaluated and the acreage of oak woodlands area contained within them calculated.

Based on this analysis, a total of 1,116 acres of oak woodlands occur on single-family residential lots of 1 acre or less that could not be further subdivided. Of this, 290 acres of oak woodlands occur on lots that are not currently developed. The Single-Family Lot Exemption could therefore result in impacts to approximately 290 acres of oak woodlands which would not require mitigation. This figure, however, is considered a conservative estimate as it does not account for undevelopable portions of a property (e.g., setback areas, slope restrictions) or retention of oaks on individual lots for aesthetic, shading, or screening purposes. Table 6-7 summarizes the acreage of oak woodlands potentially covered under the Single-Family Lot Exemption, by woodland type.

Table 6-7
Oak Woodlands Located on Single-Family Residential Lots of 1 Acre or Less That Cannot Be Further Subdivided

Oak Woodlands Type (FRAP 2015)	Total Oak Woodlands in ORMP Area (acres)	Total Oak Woodlands Area on Single-Family Lots (acres)	Total Oak Woodlands Area on Undeveloped Single-Family Lots (acres)
Blue Oak Woodland	46,521	170	88
Blue Oak-Foothill Pine	64,740	360	85
Coastal Oak Woodland	2	0	0
Montane Hardwood	98,930	337	69
Montane Hardwood-Conifer	32,643	220	40
Valley Oak Woodland	3,970	29	8
Total	**246,806**	**1,116**	**290**

As presented in Table 6-7, up to 290 acres of oak woodlands may be affected by the Single-Family Lot Exemption included in the ORMP, including 8 acres of valley oak woodland. The ORMP also exempts from mitigation requirements actions or activities that impact individual native oak trees occurring on single-family residential lots of 1 acre or less that cannot be further subdivided. The ORMP does not exempt actions or activities impacting Heritage Trees (individual native oak trees with trunk diameters measuring 36 inches and greater) from mitigation requirements. It is not feasible to quantify the number of individual native oak trees outside of oak woodlands on lots that meet these exemption criteria. However, for a tree to be classified as an individual native oak tree, it must occur outside an oak woodland, which is defined as a stand of oaks trees having a minimum canopy cover of 10%; therefore, individual native oak trees would be found at very low densities on single-family residential lots measuring 1 acre or less. This exemption could result in the loss and fragmentation of wildlife habitat without mitigation; however the potential loss of 290 acres of oak woodlands from this exemption is 0.1% of the total oak woodlands acreage in the ORMP Area and occurs primarily within Community Regions with more intensive land use and would therefore be considered less than significant.

Fire Safe Activities Exemption

As presented in the ORMP, actions taken pursuant to an approved Fire Safe Plan for existing structures or in accordance with defensible space maintenance requirements for existing structures as identified in California Public Resources Code Section 4291 are exempted from oak woodlands mitigation requirements. Oak woodlands impacts for initial defensible space establishment for new development are not exempt. Fuel treatment activities outside of defensible space areas that are associated with fuel breaks, corridors, or easements where no grading permit or building permit is applicable, are exempted from the oak woodlands mitigation requirements included in the ORMP. These activities are intended to slow or stop wildfire spread, ensure the safety of emergency fire equipment and personnel, allow evacuation of civilians, provide a point of attack or defense for firefighters during a wildland fire, and/or prevent the movement of a wildfire from a structure to the vegetated landscape.

To evaluate the effect of exempting non-defensible space fuel treatment activities in oak woodlands, the FRAP oak woodlands coverage data was overlaid on available fuel reduction datasets. Available fuels reduction datasets include those provided to the County by the Grizzly Flat, Logtown, and Sand Ridge Firesafe Councils as well as fuel treatment polygon data for fire hazard reduction projects made available by CAL FIRE (CAL FIRE 2013). The CAL FIRE dataset represents completed fuels treatment projects occurring between 2009 and 2013. The area represented in this dataset may cover the fuel treatment area only, the property boundary in which the treatment is occurring, or a buffer zone around the treatment area. Consequently, the fuel treatment area represented by the CAL FIRE data may overestimate the actual amount of

treated vegetation. The acreage of oak woodlands coverage within the polygons representing fuels treatment areas was evaluated and the acreage of oak woodlands area contained within them calculated. Table 6-8 summarizes the acreage of oak woodlands within identified Fire Safe project areas, by woodland type.

Table 6-8
Oak Woodlands Located in Fire Safe Project Areas

Oak Woodlands Type (FRAP 2015)	Total Oak Woodlands in ORMP Area (acres)	Total Oak Woodlands Area within Identified Fire Safe Project Areas (acres)
Blue Oak Woodland	46,521	448
Blue Oak-Foothill Pine	64,740	882
Coastal Oak Woodland	2	0
Montane Hardwood	98,930	1,314
Montane Hardwood-Conifer	32,643	478
Valley Oak Woodland	3,970	29
Total	**246,806**	**3,151**

Based on the analysis of oak woodlands distribution and fuel treatment project data, a total of 3,151 acres of oak woodlands occur within fuel treatment project areas. This acreage total is derived from completed project data available from local Firesafe Councils and from CAL FIRE. The CAL FIRE dataset (CAL FIRE 2013) covers projects occurring between 2009 and 2013 and may cover the fuel treatment area only, the property boundary in which the treatment is occurring, or a buffer zone around the treatment area. Consequently, the fuel treatment area represented by the CAL FIRE data likely overestimates the actual amount of treated vegetation. Additionally, CAL FIRE's fuel treatment dataset analyzed for this exemption covers multiple years, so it is not expected that the acreage total presented herein would be treated annually. Additionally, while fuel treatment occurs within oak woodlands, not all treatment prescriptions involve total tree removal and therefore oak woodlands conversion. For example, shaded fuel breaks are common fuel treatment types that involve understory brush and small tree removal while retaining overstory canopy trees.

The ORMP also exempts from mitigation requirements Fire Safe activities that impact individual native oak trees. The ORMP does not exempt Fire Safe activities impacting Heritage Trees from mitigation requirements. Quantification of the number of individual native oak trees within Fire Safe project areas is infeasible; however, isolated, individual oak trees do not necessarily pose a fire risk if properly maintained and could therefore be retained in fuel treatment areas. While fire safe activities would not necessarily result in a conversion of oak woodlands, the modification and treatment of vegetation and alterations to oak woodlands stand structure could result in the loss and fragmentation of wildlife habitat without mitigation. The effect of this exemption would

therefore be significant and unavoidable. Mitigation to address this impact would be infeasible as it would conflict directly with the following General Plan goals, objectives, and policies:

- **Goal 6.2:** Fire Hazards. Minimize fire hazards and risks in both wildland and developed areas.
    - **Objective 6.2.4:** Area-Wide Fuel Management Program. Reduce fire hazard through cooperative fuel management activities.
        - **Policy 6.2.4.2.** The County shall cooperate with the California Department of Forestry and Fire Protection and local fire protection districts to identify opportunities for fuel breaks in zones of high and very high fire hazard either prior to or as a component of project review.

Utility Line Maintenance Exemption

As presented in the ORMP, actions taken to maintain safe operation of existing utility facilities in compliance with state regulations (Public Resources Code Sections 4292–4293 and California Public Utilities Commission General Order 95) are exempted from oak woodlands mitigation requirements. Actions associated with development of new utility facilities, including transmission or utility lines, are not exempt.

To evaluate the effect of exempting maintenance of existing utility facilities, the FRAP oak woodlands coverage data was overlaid on existing transmission line data made available by CAL FIRE (CAL FIRE 2009). The transmission line data represents a 150-foot buffer (300 feet total) around major transmission lines (69 kilovolts or higher). The CAL FIRE transmission line data was obtained from California Energy Commission, Cartography Unit and was utilized in CAL FIRE's 2010 California's Forests and Rangelands Assessment (CAL FIRE 2010). The acreage of oak woodlands coverage within the transmission line buffer area was evaluated and the acreage of oak woodlands area contained within them calculated. While existing transmission line maintenance activities are exempted from the oak woodlands mitigation requirements in the ORMP, actions associated with maintenance of utility existing facilities are anticipated to include only isolated individual tree removal where tree failure is likely. Maintenance actions are not anticipated to result in a conversion of oak woodlands.

Based on the analysis of oak woodlands data and transmission line facility data, a total of 2,474 acres of oak woodlands are located within the transmission line rights-of-way (ROWs) and associated 150-foot buffer (300 feet total). However, the actions and activities covered under the Utility Line Maintenance Exemption are anticipated to include only isolated, individual tree removal where tree failure is likely to impact transmission facilities (hazard trees). Therefore, exempted maintenance activities are not anticipated to result in a conversion of oak woodlands.

Table 6-9 summarizes the acreage of oak woodlands potentially covered under the Utility Line Maintenance Exemption, by woodland type.

Table 6-9
Oak Woodlands Located in Transmission Line Rights-of-Way and Associated Buffers

Oak Woodlands Type (FRAP 2015)	Total Oak Woodlands in ORMP Area (acres)	Total Oak Woodlands Area within Utility Line ROW and Buffer (acres)
Blue Oak Woodland	46,521	586
Blue Oak-Foothill Pine	64,740	769
Coastal Oak Woodland	2	0
Montane Hardwood	98,930	753
Montane Hardwood-Conifer	32,643	312
Valley Oak Woodland	3,970	54
Total	**246,806**	**2,474**

The ORMP also exempts from mitigation requirements transmission line ROW maintenance activities that impact individual native oak trees. The ORMP does not exempt transmission line ROW maintenance activities impacting Heritage Trees from mitigation requirements. Quantification of the number of individual native oak trees within transmission line ROWs and associated buffers is infeasible, and individual native oak trees may require removal for maintenance activities. The removal of isolated, individual trees (within and outside of woodlands) is expected to be minimal and would not result in a conversion of oak woodlands or other habitats. Therefore, the activities covered under this exemption would not result in the loss and fragmentation of wildlife habitat. Impacts would be less than significant.

County Road Project Exemption

As presented in the ORMP, road widening and realignment projects necessary to increase capacity, protect public health, and improve safe movement of people and goods in existing public ROWs (as well as acquired ROWs necessary to complete the project) where the new alignment is dependent on an existing alignment would be exempted from oak woodlands mitigation requirements. New proposed roads within the County Circulation Element and internal circulation roads within new or proposed development would not be exempt.

To evaluate the effect of road widening/realignment project in existing public ROWs, the FRAP oak woodlands coverage data was overlaid on the County's Capital Improvement Program (CIP) dataset. The portion of the CIP dataset that is expected to be impacted by road widening/realignment is the area within existing ROWs but outside of existing developed roads. This resulting potential disturbance area was used for analyzing oak woodlands impacts. The acreage of oak woodlands coverage within the CIP disturbance areas was evaluated, and the

acreage of oak woodlands area contained within them calculated. Table 6-10 summarizes the acreage of oak woodlands potentially covered under the County Road Project Exemption, by woodland type.

Table 6-10
Oak Woodlands Located in County CIP Widening or Realignment Areas

Oak Woodlands Type (FRAP 2015)	Total Oak Woodlands in ORMP Area (acres)	Total Oak Woodlands Area within County CIP Widening or Realignment Area (acres)
Blue Oak Woodland	46,521	22
Blue Oak-Foothill Pine	64,740	76
Coastal Oak Woodland	2	0
Montane Hardwood	98,930	133
Montane Hardwood-Conifer	32,643	70
Valley Oak Woodland	3,970	11
Total	**246,806**	**312**

Based on the analysis of oak woodlands data and the County's CIP data, a total of 312 acres of oak woodlands are located within the CIP widening or realignment areas. Quantification of the number of individual native oak trees located in CIP widening or realignment areas is infeasible. Impacts to oak resources under the County Road Project Exemption could result in the loss and fragmentation of wildlife habitat without mitigation. This exemption is specific to widening and realignment of existing County roads. Since these are existing roads, oak woodlands habitats are already fragmented by the linear nature of the roads. Widening or realignment would incrementally increase oak woodlands loss but would not increase fragmentation, dependent upon the improvement proposed. The effect of this exemption is expected to remove a potential of 312 acres of 246,808 acres oak woodlands (0.1% of the total oak woodlands acreage in the ORMP Area). The loss of this small amount of habitat is considered less than significant.

Affordable Housing Exemption

As presented in the ORMP, affordable housing projects for lower income households (as defined pursuant to Section 50079.5 of the California Health and Safety Code) that are located within an urbanized area (as defined in California Government Code Section 65944), or within a sphere of influence (as defined pursuant to California Government Code Section 56076), would be exempted from oak woodlands mitigation requirements. In addition, the ORMP allows for oak woodlands mitigation reductions for affordable housing projects that do not meet the criteria for exemption. Specifically, the ORMP allows for a reduction in required oak woodlands mitigation for development projects that propose a minimum of 10% of the dwelling units as income restricted affordable units (as defined by California Health and Safety Code Sections 50052.5, 50053, and 50093).

To evaluate the effect of affordable housing exemptions and mitigation reductions, the FRAP oak woodlands coverage data was overlaid on the El Dorado County parcel dataset in GIS. Parcels that included any amount of oak woodlands coverage were selected. The selected subset of parcels with oak woodlands coverage was then queried to determine housing type (multi-family) and development status (vacant or developed). Determination of development status was based on an assigned value in the County's parcel dataset which identified undeveloped (vacant) parcels. All undeveloped, multi-family parcels with some level of oak woodlands coverage were then evaluated and the acreage of oak woodlands area contained within them calculated. Table 6-11 summarizes the acreage of oak woodlands potentially covered under the Affordable Housing Exemption, by woodland type.

Table 6-11
Oak Woodlands Located in Undeveloped Affordable Housing Areas

Oak Woodlands Type (FRAP 2015)	Total Oak Woodlands in ORMP Area (acres)	Total Oak Woodlands Area within Undeveloped Affordable Housing Areas (acres)
Blue Oak Woodland	46,521	69
Blue Oak-Foothill Pine	64,740	66
Coastal Oak Woodland	2	0
Montane Hardwood	98,930	28
Montane Hardwood-Conifer	32,643	2
Valley Oak Woodland	3,970	31
Total	**246,806**	**196**

Based on the analysis of oak woodlands and affordable housing data, a total of 196 acres of oak woodlands occur on lands that would qualify for the Affordable Housing Exemption. Quantification of the number of individual native oak trees located on these lands is infeasible. This exemption could result in the loss and fragmentation of wildlife habitat without mitigation; however the potential loss of 196 acres of oak woodlands from this exemption is 0.08% of the total oak woodlands acreage in the ORMP Area and occurs primarily within Community Regions with more intensive land use and would therefore be considered less than significant.

Agricultural Activities Exemption

As presented in the ORMP, certain agricultural activities (excluding commercial firewood operations) would be exempt from oak woodlands mitigation requirements. Included in this exemption are activities conducted for the purposes of producing or processing plant and animal products, consistent with California Public Resources Code Section 21083.4. In addition, the preparation of land for this purpose, agricultural cultivation/operations, or activities occurring on

lands in Williamson Act Contracts or under Farmland Security Zone Programs is also exempt from oak woodlands mitigation requirements.

To evaluate the effect of exempting oak woodlands impacts associated with agricultural activities, the FRAP oak woodlands coverage data was overlaid on the El Dorado County parcel dataset in GIS (Figure 6-2). Parcels within the ORMP Area that included any amount of oak woodlands coverage were selected. The selected subset of parcels with oak woodlands coverage was then queried to determine land planned (AL, NR, RR, and Agricultural Districts [-A]) or Agricultural, Rural Lands, and Resource Zones (PA, LA, AG, and RL), or in Williamson Act Contracts, under Farmland Security Zone Programs, or in/partially in a Mineral Resource zone. All parcels meeting these criteria with some level of oak woodlands coverage were then evaluated, and the acreage of oak woodlands area contained within them calculated. Table 6-12 summarizes the acreage of oak woodlands potentially covered under the Agricultural Activities Exemption, by woodland type.

Table 6-12
Oak Woodlands Located in Agricultural Lands

Oak Woodlands Type (FRAP 2015)	Total Oak Woodlands in ORMP Area (acres)	Total Oak Woodlands Area within Agricultural Lands (acres)
Blue Oak Woodland	46,521	29,279
Blue Oak-Foothill Pine	64,740	37,458
Coastal Oak Woodland	2	1
Montane Hardwood	98,930	50,655
Montane Hardwood-Conifer	32,643	12,785
Valley Oak Woodland	3,970	2,103
Total	**246,806**	**132,281**

Based on the analysis in Table 6-12, a total of 132,281 acres of oak woodlands occur on lands that would qualify for the Agricultural Activities Exemption. Table 6-13 presents oak woodland acreages located in Agricultural Lands by zoning district. The greatest area of oak woodlands is located in the Rural Lands zoning district. The Rural Lands zoning district is not necessarily considered an agicultural zone nor does it have Right-to-Farm protections guaranteed to lands in other agricultural zones, however it does allow commercial agricultural operations and therefore current exemption language is applicable.

Table 6-13
Oak Woodlands Located in Agricultural Lands by Zoning Designation

Zoning Designation	Acreage by Oak Woodlands Type (FRAP 2015)						
	Blue Oak Woodland	*Blue Oak-Foothill Pine*	*Coastal Oak Woodland*	*Montane Hardwood*	*Montane Hardwood-Conifer*	*Valley Oak Woodland*	*Total*
Agricultural Grazing (AG)	5,090	6,008	0	1,795	98	338	**13,329**
Commercial, General (CG)	0	0	0	5	0	0	**5**
Commercial, Limited (CL)	0	0	0	10	2	6	**18**
Forest Resource (FR)	0	0	0	37	77	0	**114**
Industrial – Light (IL)	0	18	0	2	6	2	**28**
Limited Agriculture (LA)	2,907	3,907	1	6,419	857	305	**14,396**
Open Space (OS)	12	40	0	71	27	0	**150**
Planned Agriculture (PA)	1,641	2,501	0	6,132	1,545	304	**12,123**
Two-acre Residential (R2A)	8	24	0	15	25	2	**74**
Three-acre Residential (R3A)	0	6	0	13	10	15	**44**
Residential Estate (RE)	44	223	0	702	173	1	**1,143**
Recreational Facilities (RF)	0	1	0	4	0	0	**5**
Rural Lands (RL)	19,518	24,713	0	34,150	9,370	1,108	**88,859**
Transportation Corridor (TC)	1	8	0	39	4	6	**58**
Timber Production (TPZ)	59	9	0	1,261	591	15	**1,935**
Total	**29,280**	**37,458**	**1**	**50,655**	**12,785**	**2,102**	**132,281**

Note: Zoning designations not specifically identified in the Agricultural Activities Exemption may be included if they may meet planned land use designations. For example, an R2A zoning designation may have a planned land use designation of RR.

While it is infeasible to quantify the acreage of oak woodland that that may be impacted under this exemption, an analysis of the change in oak woodland coverage in the County indicates that large-scale oak woodland conversion is not occurring. Based on an assessment of FRAP vegetation mapping data analyzed for the 2004 General Plan (El Dorado County 2004), a total of 248,800 acres of oak woodland were present in the ORMP study area in 2002 (El Dorado County 2008). In 2006, FRAP data included 250,755 acres of oak woodland in the ORMP study area (CAL FIRE 2006) and in 2015, FRAP data included 246,806 acres of oak woodland in the ORMP study area (CAL FIRE 2015). A comparison of these totals reveals a fluctuation in oak

woodland coverage over a 13-year period, with a 0.8% total reduction observed between 2002 and 2015. This relatively minimal loss of oak woodlands over time indicates that agricultural and other activities have not resulted in large-scale, permanent oak woodland conversion.

It is also infeasible to quantify the individual native oak trees located on these lands. While not all agricultural activities would result in oak woodlands conversion or individual oak tree removal (e.g., grazing activities that retain woodlands and trees), impacts to oak resources under this exemption could result in the loss and fragmentation of wildlife habitat, without mitigation. The effect of this exemption would therefore be significant and unavoidable. Mitigation to address this impact would be infeasible as it would conflict directly with the following General Plan goals, objectives, and policies:

- **Goal 8.1:** Agricultural Land Conservation. Long-term conservation and use of existing and potential agricultural lands within the County and limiting the intrusion of incompatible uses into agricultural lands.
    - **Objective 8.1.1:** Identification of Agricultural Lands. Identification of agricultural lands within the County that are important to the local agricultural economy including important crop lands and grazing land.
        - **Policy 8.1.1.1:** "Agricultural Districts" shall be created and maintained for the purposes of conserving, protecting, and encouraging the agricultural use of important agricultural lands and associated activities throughout the County; maintaining viable agricultural-based communities; and encouraging the expansion of agricultural activities and production. These districts shall be delineated on the General Plan land use map as an overlay land use designation.
- **Goal 8.2:** Agricultural Production. A healthy, stable, and competitive environment necessary to sustain agricultural industry.
    - **Objective 8.2.2:** Agricultural Operations. Protection of the rights of agricultural operators to continue agricultural practices on all lands designated for agricultural land use and expand the agricultural-related uses allowed on such lands.
        - **Policy 8.2.2.1:** Agricultural operations allowed by right on agricultural lands shall include, but not be limited to:
            A. Cultivation and tillage of the soil, grazing, dairying, irrigation, frost protection, cultivation, growing, harvesting, sound devices, use of approved fertilizers, pesticides, and crop protection;
            B. Processing of any agricultural commodity, including timber, Christmas trees, shrubs, flowers, herbs, and other plants;
            C. Raising of livestock, fur-bearing animals, and all animal husbandry;

D. Culture or breeding of poultry and aquatic species;

E. Commercial practices (ranch marketing) performed incidental to or in conjunction with such agricultural operations including the packaging, processing, and on-site sale of agricultural products produced in the County; and

F. Agricultural resource management including wildlife management, recreation, tours, riding and hiking access, fishing, and picnicking.

Emergency Operations Exemption

The ORMP would exempt oak resources impacts resulting from actions taken during emergency firefighting operations or responses to natural disasters (e.g., floods, landslides) and associated post-fire or post-disaster remediation activities from mitigation requirements. As these actions would occur in response to emergency conditions, it is not feasible to calculate the total area that could be affected and the associated potential loss of oak woodlands and individual oak trees. However, such actions would be necessary to prevent or mitigate an emergency and would be considered an emergency project under CEQA Section 15269(c), which would not require mitigation. Therefore, impacts associated with this exemption would be less than significant.

Timber Harvesting Plan Exemption

The ORMP exempts from mitigation requirements tree removal permitted under an approved Timber Harvesting Plan (THP). Oak resources impacts associated with approved timber harvesting operations would be addressed and analyzed under a THP. Timber harvesting operations on non-federal lands in California are regulated by CAL FIRE and are considered a certified program under CEQA. The State Secretary for Resources has certified that a THP is a functionally equivalent document to an EIR or other CEQA compliance document, and therefore there is no requirement to prepare a separate CEQA compliance document. Preparation of a THP is required to include assessment of the environmental effects of the THP. Thus, any THP that would affect oak resources during approved timber harvesting operations would be analyzed in that THP. A THP must also identify feasible mitigation measures and must identify re-planting efforts and best management practices (BMPs) to minimize environmental impacts.

As presented in Chapter 7, Forestry Resources, oak woodlands in the ORMP Area are not considered to be timberland as none of the oak species in the County are classified as Group A commercial species in the California Forest Practice Rules (Title 14, California Code of Regulations, Chapters 4, 4.5 and 10). Two oak species (California black oak and Oregon white oak [*Quercus garryana*]) are classified as Group B commercial species in the FPRs, but to be considered a commercial species, they must also be growing on lands dominated by Group A commercial species, which are predominantly conifer species. Oak woodlands are not typically

subject to commercial timber harvesting operations given their tree species composition. Therefore, impacts associated with this exemption would be less than significant.

Dead, Dying, or Diseased Trees Exemption

The ORMP would exempt individual native oak tree removal from mitigation requirements when a tree is dead, dying, or diseased, or when a tree exhibits high failure potential with the potential to injure persons or damage property, as documented in writing by a qualified professional. Tree removal under such circumstances is intended to mitigate risk to persons or property. Removal of individual dead, dying, diseased, or hazard trees would not result in loss of oak woodlands habitat areas. Therefore, impacts associated with this exemption would be less than significant.

Personal Use Exemption

The ORMP would exempt from mitigation requirements removal of a native oak tree (excluding Heritage Trees) when cut down on the owner's property for the owner's personal use. It is infeasible to quantify the number of individual native oak trees that may be removed under this exemption; however, no limit on removal of oak trees under this exemption is specified and that removal could occur within oak woodlands. The loss of individual oak trees under this exemption is not expected to result in the fragmentation of wildlife habitat.

As discussed under the agricultural activities exemption, the ORMP study area has not been subject to large-scale, permanent oak woodland conversion over the past 13 years. This time period is nearly the same as that under which the personal use exemption has been in effect (originating in Policy 7.4.5.2 of the County's 2004 General Plan (El Dorado County 2004). The contribution of the personal use exemption toward the observed oak woodland cover change is unknown; however, it is reasonable to assume that it accounts for only a portion of the total change observed over 13 years (0.8%). Conservatively, however, with no required mitigation limiting individual tree removal, the effect of this exemption would be potentially significant.

Oak Resource Impact Conclusions

Oak Woodlands

As presented in Table 6-6, it is expected that General Plan implementation would result in the loss of 4,009 acres of oak woodlands by 2025 with loss of another 2,433 acres of oak woodlands occurring between 2025 and 2035 (total loss of 6,442 acres of oak woodlands by 2035). As noted, these figures represent the total oak woodlands area occurring on parcels designated for residential, commercial, retail, and industrial development in 2025 or 2035 and likely overestimate potential impacts due to the assumption that 100% of the oak woodlands on any given parcel that becomes developed would be lost. Additionally, these figures do not include

impacts associated with development of agricultural activities and production, which would be exempt from mitigation requirements.

As shown in Figure 5-1, most impacts to oak woodlands from future development are expected to occur on properties generally within the Community Regions along the Highway 50 corridor and west of the City of Placerville. In particular, several properties that currently support oak woodlands habitats within the communities of El Dorado Hills, Cameron Park, and Shingle Springs are projected to be developed under both the 2025 and 2035 scenarios. A few properties east of Placerville that currently support oak woodlands are also expected to be developed, including properties in the community of Camino and properties south of Placerville.

Mitigation for oak woodlands impacts within the 6,442 acres of development would be required, as outlined in the ORMP, with the exception of impacts exempted under the Single-Family Lot Exemption (290 acres of oak woodland) and the Affordable Housing Exemption (196 acres of oak woodland[3]). Therefore, it is expected that up to 6,442 acres of oak woodlands could be impacted under long-term General Plan buildout scenario (2035) and that mitigation would be provided for the impacts to 5,956 acres (excluding exemptions). As outlined in the ORMP, mitigation ratios for oak woodlands impacts may be 1:1, 1.5:1, or 2:1, depending on the extent to which oak woodlands is retained on site for each individual project. It is not possible to predict the level of oak woodlands retention at this programmatic level of analysis. The following summarizes the range of potential mitigation scenarios under the 2035 General Plan buildout scenario:

- Retention of 50% or more of oak woodlands results in a 1:1 mitigation ratio. Under the 2035 buildout scenario, if 50% retention was achieved on every parcel, 2,978 acres of oak woodlands would be retained and 2,978 acres would be mitigated via conservation, replacement planting, and/or in-lieu fee payment.
- Retention of more than 25% but less than 50% of oak woodlands results in a 1.5:1 mitigation ratio. If every project retains 25% of the site's oak woodlands, under the 2035 buildout scenario, 1,489 acres of oak woodlands would be retained and 6,701 acres would be mitigated via conservation, replacement planting, and/or in-lieu fee payment.
- Retention of less than 25% of oak woodlands results in a 2:1 mitigation ratio. Under the 2035 buildout scenario, if no oak woodlands was retained, 11,912 acres would be mitigated via conservation, replacement planting, and/or in-lieu fee payment.

Oak woodlands impacts and mitigation would be addressed in an oak resources technical report prepared for individual projects. A deed restriction or conservation easement would be placed

[3] The oak woodlands acreage calculated for the Affordable Housing Exemption is an overestimate of that which would be entirely exempt from mitigation, as a portion of that impacted acreage would require mitigation at a reduced ratio. However, for the purposes of this analysis, a conservative value of 196 acres is used.

over retained on-site woodlands, and those woodlands retained on site would not be counted towards the impacted amount or towards the required mitigation. Mitigation for oak woodlands impacts would occur at a ratio of 1:1, 1.5:1, or 2:1, depending on the extent of on-site impact. Oak woodlands mitigation would be achieved by one or more of the following options:

- Deed restriction or conservation easement acquisition (off site), and/or acquisition in fee title by a land conservation organization (off site);
- In-lieu fee payment;
- Replacement planting on site within an area subject to a deed restriction or conservation easement; and/or
- Replacement planting off site within an area subject to a conservation easement.

Consistent with California Public Resources Code Section 21083.4, replacement planting would not account for more than 50% of the oak woodlands mitigation requirement. As described in the ORMP, the in-lieu fee for oak woodlands impacts has been calculated based on an approach that considers the actual costs to acquire and manage oak woodlands areas in El Dorado County. The County would use collected in-lieu fees to acquire and manage lands containing oak woodlands and/or conservation easements over existing oak woodlands in perpetuity and/or to undertake replacement planting efforts. Thus while buildout of the General Plan could result in the loss of 5,956 acres of oak woodlands, this loss would be sufficiently mitigated via the requirements in the ORMP and the impact would be less than significant.

Land acquisition, placement of deed restrictions, or establishment of conservation easements for the purposes of conserving existing oak woodland areas for mitigation purposes would not result in secondary impacts as these actions do not cause a physical change in the environment. Passive management of conserved oak woodland areas may require inspections, biological surveys, fuels treatment/weed control to reduce wildfire risk and improve habitat, database management, and mapping. With the exception of fuels treatment/weed control, none of these activities involve physical changes to the land or vegetation. Fuels treatment/weed control activities are expected to be focused in key areas (not wide-spread) to minimize wildfire ignition potential (e.g., along public roadways) and treat concentrations of noxious/invasive weeds. Both activities are expected to involve minimal vegetation removal using hand tools and/or small mechanized equipment. No soil disturbance is expected to implement fuel reduction/weed control activities. Such activities are not expected to result in secondary impacts.

Tree planting for mitigation purposes would likely require minor vegetation removal and localized soil disturbance only at the planting site. Specifically, recommended planting techniques (McCreary 2009) include removal of competing vegetation around the planting hole. This typically involves scraping and removing weeds and grasses from a circular area (3 to 5-

foot radius) centered at the planting hole. Planting hole excavation is typically conducted with hand tools (e.g., shovels) or small mechanized equipment (e.g., augers) and the excavated soil is used to backfill the hole once the tree is planted and to form a berm around the newly-planted tree to facilitate irrigation water infiltration. No soil is expected to be removed from the site or otherwise discharged in an area beyond the planting site. In order to control competing weed growth, mulch is typically applied over the area that was subject to competing vegetation removal (3 to 5-foot radius around the planting hole). This has the added benefit of covering exposed soil, thereby minimizing erosion potential. While tree planting activities include minor vegetation removal and soil disturbance, standard planting and weed control practices mitigate potential adverse effects by retaining, covering, and stabilizing disturbed soil. Therefore, such activities are not expected to result in secondary impacts.The Agricultural Activities Exemption and County Road Exemption, which are the same as currently allowed, and the other exemptions included in the proposed ORMP could allow for loss of up to 138,704 acres of oak woodlands, as presented in Tables 6-7 through 6-12. This total likely overestimates the acreage of oak woodlands that would be impacted under exempt activities and actions given the datasets analyzed (e.g., transmission line buffers, fire safe project areas), and the assumption that all woodland areas within the parcels for which exemptions may apply would be impacted. However, oak woodlands impacts associated with ORMP exemptions would result in the loss and fragmentation of oak woodlands wildlife habitat without mitigation.

The Agricultural Activities Exemption could allow for up to 132,281 acres of impact that are exempt from mitigation requirements. As shown in Table 6-13, the greatest area of potential impact would be in lands zoned Rural Lands. This effect could be lessened if the ORMP were revised to omit or limit this exemption. However, the County's General Plan expresses a commitment to preserving and enhancing the County's agricultural economy, as identified in General Plan Goals 8.1 and 8.2, Objectives 8.1.1 and 8.2.2, and Policies 8.1.1.1, and 8.2.2.1.

Potential mitigation for the loss and fragmentation of oak woodlands habitat could include requiring a minimum level of oak woodlands retention on every parcel. That project revision is evaluated as Alternative 2 in Chapter 10 of this EIR. A second option for mitigation would be to modify General Plan policies and the Zoning Ordinance to reduce allowable development intensities, which would increase the amount of open space that would remain after development. This could increase the feasibility and likelihood of on-site oak woodlands retention. However this mitigation would not be feasible as it would be incompatible with the General Plan goals for keeping higher intensity, more urban and suburban uses in the communities of El Dorado Hills and Cameron Park, so that the rural communities can support lower intensity land uses.

As the ORMP exemptions could allow for loss of up to 138,704 acres of oak woodlands (which is over half of the County's oak woodland inventory), and there is no feasible mitigation to reduce this potential loss, the impact would be significant and unavoidable.

Individual Oak Trees

The analysis of impacts to oak resources presented in this EIR has focused on oak woodlands as oak woodlands distribution data (CAL FIRE 2015a) is readily available and easily analyzed in a GIS environment. However, impacts to individual native oak trees resulting from General Plan buildout (2025 and 2035) and occurring as a component of exempt actions and activities are not quantifiable. Such individual trees occur outside of oak woodlands, defined as a stand of oaks trees having a minimum canopy cover of 10%. Therefore, individual native oak trees (including Heritage Trees) would be found at very low densities within non-woodland habitat types.

Impacts to individual native oak trees and Heritage Trees occurring as a result of General Plan buildout will be mitigated on an inch-for-inch basis, as outlined in the ORMP. Removal of individual native oak trees would be mitigated on an inch-for-inch basis at a 1:1 ratio (Heritage Trees would be mitigated on an inch-for-inch basis at a 3:1 ratio), meaning that for every inch of trunk diameter removed 1 inch of trunk diameter would be replaced (3 inches for Heritage Trees). To meet the inch-for-inch replacement standard, the ORMP allows a variety of replacement tree sizes, as outlined in Table 6-14.

Table 6-14
Oak Tree Replacement Planting Sizes and Ratios

Replacement Tree Size	Number of Trees Required Per Inch of Trunk Diameter Removed
Acorn	3
1-gallon/TreePot 4	2
5-gallon	1.5
15-gallon	1

For example, based on the ratios outlined in Table 6-14, removal of one 12-inch native oak tree would require planting 12 15-gallon trees, 18 5-gallon trees, 24 1-gallon/TreePot 4 trees, or 36 acorns. As outlined in the ORMP, replacement tree species would be the same proportion as those removed and would be monitored and maintained for a period of 7 years, calculated from the day of planting. Documentation of replacement tree planting success would be provided to the County annually and at the end of the 7-year monitoring and maintenance period and any replacement trees that do not survive the 7-year monitoring and maintenance period would be replaced and maintained for 7 years. Replacement tree sizes could vary and could include acorn plantings, based on documentation of inch-for-inch replacement consistency included in an oak resources technical report to be prepared for individual projects.

Typical replacement oak tree container sizes include TreePot 4 (volumetrically equivalent to a 1-gallon container but with a narrower and deeper shape), 1-gallon, 5-gallon, and 15-gallon. An important consideration in container size and shape is the fact that oak trees are taprooting

species. Oak taproots typically reach the bottom of planting containers before shoots emerge from the soil surface, therefore, seedlings can become container-bound if left too long in containers (Hobbs and Young 2001), which may adversely affect post-planting root establishment and successful adaptation to the planting site (Young and Evans 2005).

Acorn and seedling (1-gallon and smaller) establishment success has been well-documented in field research, with several studies noting the successful establishment of planted oak seedlings in Northern California sites (McCreary 2009, McCreary and Lippitt 1997, McCreary 1991). In some cases, acorns and smaller containers can outgrow larger container-sized trees (McCreary 1996), primarily due to taproot development being more successful as it is not inhibited by excessive time in containers. In the study by McCreary (1996), blue oak acorns and 4-month-old seedlings outgrew 1-year-old seedlings over a 4-year period once planted. The determination of which seedling container size is appropriate to a given mitigation site would be made by a qualified professional in consideration of soil type, maintenance needs, access, and available irrigation. The variation in seedling container sizes in the ORMP allows for flexibility in oak tree replacement projects to allow for consideration of these factors.

In addition to replacement tree planting, the ORMP allows for payment of an in-lieu fee based on an inch-for-inch replacement approach that accounts for costs associated with purchasing and planting 1-inch of trunk diameter and maintaining those trees for a period of 7 years. Under this approach, the County would use collected in-lieu fees to plant replacement trees within the County.

Impacts to individual native oak trees resulting from non-exempt activities and actions would be mitigated based on the inch-for-inch basis described above. Mitigation for all Heritage Tree impacts would also be mitigated on the inch-for-inch basis described above, at a 3:1 replacement ratio. However, impacts to individual native oak trees occurring under exempt activities and actions would not be mitigated. As the number of individual native oak trees covered under the exempted activities and actions included in the ORMP cannot be quantified, the effect of the ORMP exemptions on impacts to individual native oak trees could therefore be significant and unavoidable.

Opportunities for further reduction of these impacts are the same as discussed for oak woodlands impacts, including omitting the Agricultural Activities Exemption, establishing a minimum oak resource retention standard, and reducing development intensities. A minimum retention standard is evaluated as a project alternative in Chapter 10, while the other potential mitigation measures are considered infeasible, as discussed previously.

General Plan Biological Resources Policies

The proposed project would result in similar levels of development and resultant habitat conversion as described in the 2004 General Plan EIR and the TGPA-ZOU EIR. Proposed policy revisions would change how habitat impacts from development are identified and mitigated. This

analysis considers the degree to which the proposed General Plan Biological Resources Policies and Objectives could result in fragmentation of wildlife habitat.

Proposed Policy 7.4.2.8 creates a Biological Resources Mitigation Program (Program) for the County, focused on the acquisition and preservation in perpetuity of habitat and migratory corridors, including aquatic/wetland habitat and large expanses of native vegetation. The Program would establish fixed mitigation ratios for habitat types aside from oak woodlands and Pine Hill plants. The proposed Program also requires that a site-specific biological resources technical report be prepared for each project, and requires a wildlife movement studies for 4-, 6- and 8-lane highway projects.

Proposed Policy 7.4.2.9 establishes a requirement that there be "no net loss" of wildlife movement functions and values for projects located within the County's designated IBCs. No net loss of wildlife movement is defined for purposes of this policy as sustainably maintaining wildlife movement post-development.

Based on the assumptions and methodology described in Chapter 4, the maximum land cover conversion resulting from projected development in the County over the study period is presented in Table 6-15.

Table 6-15
Maximum Conversion of Land Cover Types Under the Proposed Project

Land Cover Type (FRAP 2015)	Existing Land Cover in ORMP Area (acres)	Projected Land Cover Conversion by 2025 (acres)	Projected Land Cover Conversion by 2035[1]
Upland			
Alpine-Dwarf Scrub	306	0	0
Annual Grassland	74,584	7,343	13,108
Aspen	47	0	0
Chamise-Redshank Chaparral	452	0	0
Closed-Cone Pine-Cypress	390	0	0
Douglas Fir	7,008	0	0
Eastside Pine	12	0	0
Eucalyptus	9	0	0
Jeffrey Pine	11,538	0	0
Lodgepole Pine	4,676	0	0
Mixed Chaparral	32,336	495	1,028
Montane Chaparral	46,424	0	0
Perennial Grassland	12,923	0	0
Ponderosa Pine	86,025	7	15
Red Fir	77,882	0	0
White Fir	21,560	0	0

Table 6-15
Maximum Conversion of Land Cover Types Under the Proposed Project

Land Cover Type (FRAP 2015)	Existing Land Cover in ORMP Area (acres)	Projected Land Cover Conversion by 2025 (acres)	Projected Land Cover Conversion by 2035[1]
Oak Woodland			
Blue Oak Woodland	46,521	1,702	2,528
Blue Oak-Foothill Pine	64,740	1,691	2,816
Coastal Oak Woodland	2	0	0
Montane Hardwood	104,076	423	733
Montane Hardwood-Conifer	38,267	8	26
Valley Oak Woodland	3,979	247	401
Herbaceous Wetland			
Fresh Emergent Wetland	639	144	206
Wet Meadow	2,354	0	0
Water			
Lacustrine	15,085	6	35
Shrub and Tree Wetland			
Riverine	1,175	1	1
Montane Riparian	1,296	0	0
Valley Foothill Riparian	3,764	163	282
Sagebrush	83	0	0
Sierran Mixed Conifer	296,721	3	3
Subalpine Conifer	4,069	0	0
Other			
Urban	38,674	2,154	4,412
Barren	37,003	0	0
Cropland	3,601	40	44
Deciduous Orchard	378	3	5
Evergreen Orchard	210	22	22
Pasture	418	0	0
Vineyard	972	0	0
Total	**1,040,199**	**14,452**	**25,665**

Note:
[1] Includes land cover type conversion that occurred through 2025.

General Plan Biological Resources Policies Conclusions

Aside from the Pine Hill endemic species, the special-status species within the County occur in a variety of different land cover types. The proposed project would preserve each of these different upland land cover types in locations throughout the County, below 4,000 feet where impacts occur. The PCAs, IBCs, and other areas prioritized for conservation are located throughout this area below 4,000 feet elevation. With the exception of oak woodlands, which would be mitigated at varying ratios depending on the level of on-site avoidance (see ORMP discussion above), the

following upland land cover types would be preserved at a ratio of 1:1 to ensure that the current range and distribution of special-status species within the County are maintained:

- Annual Grassland
- Mixed Chaparral
- Ponderosa Pine
- Sierran Mixed Conifer

Wetlands would be mitigated in a few different ways, sometimes focusing only on creation of new wetlands and sometimes balancing creation with preservation. Under the CWA, both preservation and creation of wetlands activities are subject to USACE permitting/approval and must meet minimum aquatic function performance standards. The following ratios would be used under the project:

- Fresh Emergent Wetland – 1:1 preservation and 1:1 creation
- Lacustrine – 1:1 creation
- Riverine – 2:1 preservation and 1:1 creation
- Valley Foothill Riparian – 2:1 preservation and 1:1 creation

The greater preservation requirement for Riverine and Valley Foothill Riparian would mitigate for temporal loss (the time required for planted shrub and tree wetland to replace the functions lost). As for the upland land cover types, this mitigation would ensure that the current range and distribution of special-status species within the County are maintained (refer to Table 6-15).

As demonstrated in Table 6-16, sufficient acreage is available in the existing PCA and IBC areas to meet the mitigation ratios for estimated impacts to nearly all land cover types, with a substantial surplus available for oak woodlands. When considering all land cover types available in the County, there is sufficient acreage available to meet the required mitigation ratios. Proposed Policy 7.4.2.8D establishes criteria for identifying preservation sites outside the PCAs and IBCs.

Table 6-16
Potential Mitigation of Land Cover Types Conversion Under the Proposed Project

Land Cover Type (FRAP 2015	Projected Land Cover Type Conversion by 2035[1] (acres)	Preservation Mitigation Requirement (acres)	Land Cover Type Available for Preservation in PCAs (acres)	Land Cover Type Available for Preservation in IBCs (acres)	Land Cover Type Available Outside PCAs and IBCs (acres)
Upland					
Annual Grassland	13,108	13,108	3,209	2,324	38,921
Mixed Chaparral	1,028	1,028	2,662	622	20,859

Table 6-16
Potential Mitigation of Land Cover Types Conversion Under the Proposed Project

Land Cover Type (FRAP 2015	Projected Land Cover Type Conversion by 2035[1] (acres)	Preservation Mitigation Requirement (acres)	Land Cover Type Available for Preservation in PCAs (acres)	Land Cover Type Available for Preservation in IBCs (acres)	Land Cover Type Available Outside PCAs and IBCs (acres)
Ponderosa Pine	15	15	402	142	72,547
Sierran Mixed Conifer	3	3	23	69	281,346
Oak Woodland					
Blue Oak Woodland	2,528	5,056	2,945	10,344	14,319
Blue Oak-Foothill Pine	2,816	5,632	5,875	8,775	20,990
Montane Hardwood	733	1466	6,100	9,017	50,000
Montane Hardwood-Conifer	26	52	563	2,068	23,680
Valley Oak Woodland	401	801	164	315	1,178
Herbaceous Wetland					
Fresh Emergent Wetland	206	206	33	24	302
Water					
Lacustrine	35	None	84	47	13,965
Shrub and Tree Wetland					
Riverine	1	2	93	42	799
Valley Foothill Riparian	282	565	419	283	1,584
Other (Not Mitigated)					
Cropland	44	None	79	38	1,5810
Deciduous Orchard	5	None	0	0	128
Evergreen Orchard	22	None	12	18	60
Barren	0	None	9	5	36,005
Urban	4,412	None	559	28	8,501

Note:
[1] Includes land cover type conversion that occurred through 2025.

This analysis considers the impacts of General Plan implementation on land cover types, including those that could support special-status species, at a programmatic level. At the individual project level, there would be a potential for projects to result in direct harm, disturbance, habitat loss, and interruption of habitat connectivity for individual species. Under proposed Policy 7.4.2.8, projects that require discretionary approvals from the County would be required to prepare a site-specific biological resources technical report to determine the presence of special-status biological resources and potential impacts to them. Such projects would be

subject to CEQA review that would specify any necessary site-specific mitigation to comply with the requirements of the CESA and ESA. In addition, under proposed Objective 7.4.1 and proposed Policy 7.4.2.1, projects must be consistent with federal and state laws, and the County will coordinate wildlife and vegetation protection programs with appropriate federal and state agencies (see Section 6.2, Regulatory Setting). For example, an individual project would need to comply with the MBTA by requiring nesting bird surveys in suitable habitat if vegetation clearing is to occur during the nesting season.

Establishment of preserves under proposed Policy 7.4.2.8 and the ORMP would offset many of the impacts related to habitat fragmentation. Further mitigation of these impacts would occur through implementation of Mitigation Measure BIO-1: Conservation Area Monitoring, which would ensure that monitoring of preserved areas is maintained in perpetuity and that monitoring costs would be borne by the individual development project or projects that caused the impact.

Implementation of the ORMP and proposed Policy 7.4.2.8, together with Mitigation Measure BIO-1: Conservation Area Monitoring, would ensure that mitigation lands are preserved, monitored, and maintained in a natural state in perpetuity.

While these proposed policies would reduce the adverse effects of development, there would be a net decrease in the amount of wildlife habitat within the County. Compared to the pattern of development and conservation under existing General Plan policies, the proposed project would result in reduced impacts to special-status species by ensuring a greater amount of habitat preservation and creation than is required under the existing policies. However, as with the 2004 General Plan Policies, development allowed under the proposed project would result in significant and unavoidable impacts to wildlife habitat due to the extent of the overall loss of special-status species habitats. Opportunities for further reduction of these impacts are the same as discussed for oak woodlands impacts, including omitting the Agricultural Activities Exemption, establishing a minimum oak resource retention standard, and reducing development intensities. A minimum retention standard is evaluated as a project alternative in Chapter 10, while the other potential mitigation measures are considered infeasible, as discussed previously.

Impact BIO-2

Have a substantial adverse effect on special-status species.

Determination: Significant and Unavoidable

2004 General Plan EIR Conclusions

The 2004 General Plan EIR found that "[d]evelopment of and increases in urban, agricultural, and mined areas under the General Plan would lead to loss of habitat and loss of individuals of both special-status plants and animals" (El Dorado County 2004). The 2004 General Plan EIR noted that the General Plan "would significantly affect special-status plants and special-status animals. Significant impacts would be attributed mostly to losses of habitat for special-status species that result from existing and projected land uses and population." The 2004 General Plan EIR discussed the fact that various special-status species, including plants reliant upon gabbro soils, are known to inhabit areas designated in the General Plan for high- and medium-intensity land uses. Although General Plan designations for Open Space (OS) and the Ecological Preserve and IBC overlays would offer some protection for these species, the designations do not cover all of the existing habitat, and "the policies and implementation measures for [the General Plan] do not provide assurance that this impact would be reduced to less-than-significant" (El Dorado County 2004). The 2004 General Plan EIR made the following conclusion:

> With implementation of [Mitigation Measures 5.12-1(d) and (e) of the No Project Alternative], impacts would be reduced, but not to a less-than-significant level because the amount and location of proposed development is such that impacts on special-status species could not be avoided and the amount of habitat to support remaining populations would not be sufficient to ensure that local extirpation would not occur.

TGPA-ZOU EIR Conclusions

The TGPA-ZOU EIR (El Dorado County 2015) examined the potential for those General Plan amendments and updates to the Zoning Ordinance to impact special-status species within the County and determined the effects would be significant and unavoidable.

Impacts to special-status species related to the following uses under the TGPA-ZOU would be significant and unavoidable:

- Infill uses;
- Public Utility Services Facilities authorized in residential zones upon approval of a CUP;
- Ski Area, Large Amusement Complex, and Hotel or Motel uses; and

- Allowing intensive land uses in Planned Agricultural, Rural Lands, and Resources zones (e.g., Feed and Farm Supply Store; Industrial, General; Off-Road Vehicle Recreation Area or Ski Area), which could require the conversion of a substantial amount of special-status species habitat in order to operate as designed.

The TGPA-ZOU EIR determined that:

- Impacts related to allowing development on 30% hillsides would be reduced to a less-than-significant level by Mitigation Measure BIO-1a (Limit the relaxation of hillside development standards);
- Implementation of Mitigation Measure BIO-1b (Limit the approval of Private Recreation Areas) reduced impacts associated with Private Recreation Areas to a less-than-significant level;
- Implementation of Mitigation Measure AG-1a (Amend the ZOU to limit the size of proposed Health Resort and Retreat Centers) would reduce the potential adverse effect of a Health and Resort Center on habitat to a less-than-significant level; and
- Implementation of Mitigation Measure BIO-1c (Limit music festivals and concerts) and BIO-2 (Return event site to pre-event condition) would reduce impacts related to Ranch Marketing uses to a less-than-significant level.

Finally, the TGPA-ZOU EIR found that impacts to special-status species related to Agricultural and Timber Resource Lodging uses would be less than significant.

Overall, the TGPA-ZOU EIR determined that impacts related to special-status species would be significant and unavoidable (El Dorado County 2015).

Project Impacts

Oak Resources Management Plan

As buildout of the General Plan occurs, the provisions of the ORMP would not directly relate to management of potential impacts to special-status species, other than through the loss and fragmentation of oak woodland habitat, which is described under Impact BIO-1.

General Plan Biological Resources Policies and Objectives

Implementation of the proposed General Plan Biological Resources Policies and Objectives could affect special-status species through habitat loss and fragmentation, as described under Impact BIO-1, and through disruption of wildlife movement and habitat connectivity, as described under Impact BIO-3 (discussed later in this section). The amount of land cover

conversion that would occur under the proposed project is identified in Table 6-15 and is similar to the level of development and resultant habitat conversion described in the 2004 General Plan EIR and the TGPA-ZOU EIR.

Under proposed Objective 7.4.1, the County would be limited to establishing preserves for the Pine Hill plants, as opposed to other special-status species. Further the proposed policies do not include either a specific requirement for development to use clustering techniques to limit impacts or a requirement for a minimum amount of biological resources retention on individual project sites. However, under proposed Policy 7.4.2.8, preservation would be required to offset impacts from all types of land cover conversion. Requirements in both proposed Policies 7.4.2.8 and 7.4.2.9 would ensure that preserved lands would be on a minimum contiguous block of 5 acres. These proposed policies also establish selection criteria for parcels selected for preservation that emphasize connectivity with adjacent preserved parcels. Further, Policy 7.4.2.8 would require preparation of a site-specific biological resources technical report for individual development projects, to ensure that potential impacts to any unique resources at a given site are appropriately identified and mitigated, while Policy 7.4.2.9 would require additional analysis and compliance with a "no net loss" standard for wildlife movement for properties within the County-designated IBCs. No net loss of wildlife movement is defined for purposes of this policy as sustainably maintaining wildlife movement post-development. The site-specific biological resources technical reports will evaluate site-specific methods to sustainably maintain wildlife movement within the IBCs post-development. These site-specific methods may include some combination of siting and/or project design techniques (setbacks, large lot design, and/or clustering, etc). The Biological Resources Mitigation Program established in proposed Policy 7.4.2.8 and the associated proposed biological resources objectives and policies would ensure that habitat for special-status species is maintained in the County.

Conclusions

Collectively, the proposed ORMP and General Plan Policies and Objectives would not adversely affect special-status species in the County, and in many cases would improve protections over those in the 2004 General Plan. Under proposed Policy 7.4.2.8, projects that require discretionary approvals from the County would be required to prepare a site-specific biological resources technical report to determine the presence of special-status biological resources and potential impacts to them. Such projects would be subject to CEQA review that would specify any necessary site-specific mitigation to comply with the requirements of the CESA and ESA. In addition, under proposed Objective 7.4.1 and proposed Policy 7.4.2.1, projects must be consistent with federal and state laws, and the County will coordinate wildlife and vegetation protection programs with appropriate federal and state agencies (see Section 6.2, Regulatory Setting). For example, an individual project would need to comply with the MBTA by requiring nesting bird surveys in suitable habitat if vegetation clearing is to occur during the nesting

season. Impacts to special-status species from future development would be offset through establishment of preserves and creation of new habitat.

While these proposed policies would reduce the adverse effects of development, there would be a net decrease in the amount of special-status species habitat within the County. Compared to the pattern of development and conservation under existing General Plan policies, the proposed project would result in reduced impacts to special-status species by ensuring a greater amount of habitat preservation and creation than is required under the existing policies. However, as with the 2004 General Plan Policies, development allowed under the proposed project would result in significant and unavoidable impacts to special-status species due to the extent of the overall loss of special-status species habitats.

Opportunities for further reduction of these impacts are the same as discussed for loss and fragmentation of oak woodlands, including omitting the Agricultural Activities Exemption, establishing a minimum oak resource retention standard, and reducing development intensities. A minimum oak woodland retention standard is evaluated as a project alternative in Chapter 10, while the other potential mitigation measures are considered infeasible, as discussed previously. In addition, discretionary projects would also be subject to CEQA review that could specify additional necessary mitigation beyond that required by the General Plan Policies, Objectives, and ORMP. This site-specific mitigation could further reduce impacts to special-status species from direct harm, disturbance, habitat loss, and interruption of habitat connectivity.

Impact BIO-3

Have a substantial adverse effect on wildlife movement.

Determination: Significant and Unavoidable

2004 General Plan EIR Conclusions

The 2004 General Plan EIR found that the General Plan would have a significant and unavoidable impact on wildlife movement. It summarized the concerns and the General Plan's impacts as follows (El Dorado County 2004):

> Urban development in western El Dorado County under the General Plan would substantially reduce the ability of terrestrial wildlife to move unimpeded through this region. The increased population would result in additional barriers to wildlife such as fencing, roadways, and more vehicular traffic.
>
> Development under the General Plan could also result in impacts on aquatic habitat, such as diversion of streamflows, that could impede movement by native fishes. Many wildlife species move from one location to another to areas that provide suitable cover, foraging habitat, and breeding habitat. Wildlife movement

> can be divided into two broad categories: long-distance seasonal migration between winter and summer habitats, and regular short-distance movements within home ranges or territories. Allowing animals to move unimpeded increases their chances of survival and reproductive success and enhances opportunities for genetic interchange between populations.
>
> … significant impacts could result from actions that substantially isolate wildlife populations or eliminate opportunities for wildlife to reach important habitat for their survival and reproduction.
>
> … By buildout, however, urban development could progress up the west slope enough to encroach on important deer-herd habitat; at this point, the density of housing and associated development (e.g., fencing, roadways) could substantially impede the movement of migratory deer.
>
> Potentially significant effects are expected on wildlife movement in the western third of El Dorado County where development pressure is heaviest. As this region becomes increasingly urbanized, uninhibited movement by wildlife would become more difficult because of new urban and agricultural development. Secondary obstructions and disturbances, such as fencing, lighting, roadways, traffic, and domestic pets, would also adversely affect wildlife movement opportunities. U.S. 50, which bisects the county, and development adjacent to the highway already limits north-south wildlife movement in western El Dorado County.

Although not explicitly stated in the above discussion, the 2004 General Plan EIR noted the development of approximately 32,500 new housing units as would eventually be allowed under the General Plan would adversely affect wildlife movement, despite the General Plan's concentration of high- and medium-density land uses in the Community Regions and Rural Centers. The 2004 General Plan EIR called out the General Plan's use of the IBC overlay as a potentially useful tool to provide connectivity, but qualified the statement by pointing out that "[d]epending upon the strength of the standards, the –IBC overlay could have varying degrees of success toward achieving its objectives." It concluded that "[e]ven with the –IBC, the degree to which wildlife movement corridors would ultimately be protected is uncertain because of the amount of development expected during the planning horizon" (El Dorado County 2004).

The 2004 General Plan EIR identified development and implementation of the INRMP as mitigation measure for this impact, but concluded that the impact would remain significant and unavoidable.

TGPA-ZOU EIR Conclusions

The TGPA-ZOU EIR found that the proposed amendments and update would have a significant and unavoidable impact on wildlife movement, in part due to the extent of the loss and fragmentation of

habitat anticipated as the General Plan is implemented. While mitigation measures identified in the TGPA-ZOU EIR were expected to reduce the extent of impacts to wildlife movement, the impact was found to remain significant and unavoidable (El Dorado County 2015).

Project Impacts

The proposed project could interfere with wildlife movement by allowing land conversion of wildlife corridors or habitat linkages. Wildlife corridors are linear features that connect large patches of natural open space and provide avenues for the migration of animals. Wildlife corridors contribute to population viability by assuring continual exchange of genes between populations, providing access to adjacent habitat areas for foraging and mating, and providing routes for recolonization of habitat after local extirpation or ecological catastrophes (e.g., fires).

Habitat connectivity or linkages are small patches that join larger blocks of habitat and help reduce the adverse effects of habitat fragmentation. Habitat linkages provide a potential route for gene flow and long-term dispersal of plants and animals and may also serve as primary habitat for smaller, more sedentary animals, such as small rodents, reptiles, and amphibians. Habitat linkages may be continuous habitat or discrete habitat islands that function as stepping stones for dispersal.

Impact BIO-3 relates closely to the loss and fragmentation of habitat, which is discussed primarily in Impact BIO-1.

Oak Resources Management Plan

As buildout of the General Plan occurs, the provisions of the ORMP would not directly relate to management of potential impacts to wildlife movement, other than through the loss and fragmentation of oak woodland habitat, which is described under Impact BIO-1.

General Plan Biological Resources Policies and Objectives

With adoption of the 2004 General Plan, the County established the IBC overlay to provide a greater level of protection to wildlife movement corridor that link PCAs, natural vegetation communities and/or areas having Natural Resource, Open Space, and/or Agricultural base land use designations in the western portion of the County.

The proposed policies would establish requirements for development on sites within the IBC overlay, including that development projects must achieve a “no net loss” standard for wildlife movement functions and values as determined through preparation of a wildlife movement study. No net loss of wildlife movement is defined for purposes of this policy as sustainably maintaining wildlife movement post-development. The site-specific wildlife movement studies within the biological resources technical reports will evaluate site-specific methods to sustainably maintain wildlife movement within the IBCs post-development. These site-specific methods may include

some combination of siting and/or project design techniques (setbacks, large lot design, and/or clustering, etc). Also required are wildlife movement studies for 4-, 6-, and 8-lane roadway projects and mitigation of potential impacts through habitat preservation, overcrossings, undercrossings, or other design features. While the proposed policies do not specifically require clustering of development, they recognize that mitigation to achieve the "no net loss" standard may include siting and/or project design techniques, which could include clustering or other effective measures. Further, proposed Policy 7.4.2.8D would prioritize acquisition of parcels that would preserve natural wildlife movement corridors such as crossings under major roadways (e.g., U.S. Highway 50) and across canyons. Many of the most effective crossing points would be across U.S. Highway 50, and the County does not have jurisdiction to require crossings on a state highway. However, the County has identified a potential wildlife crossing within the Weber Creek IBC which appears to be most feasible based on existing topographical constraints and development patterns. Proposed Policy 7.4.2.9 would require that discretionary and ministerial projects within this IBC also achieve the "no net loss" standard for wildlife movement function and values.

Conclusions

Projected development east of Shingle Springs and southwest of Placerville has the potential to interfere with wildlife movement within IBCs. However, the proposed policies would ensure that development within the IBCs would result in no net loss of wildlife movement. The proposed policies also establish criteria for identifying parcels appropriate for conservation that prioritize locations in the IBCs and PCAs. Implementation of proposed Policy 7.4.2.8B as well as creation and protection of wildlife crossings as prioritized under Policy 7.4.2.8D would ensure that suitable wildlife crossings would be constructed and maintained to minimize the habitat fragmentation that could occur as a result of projected growth. Implementation of proposed Policy 7.4.2.9 would require that discretionary and ministerial projects within the Weber Creek IBC also achieve the "no net loss" standard for wildlife movement function and values for the creek, providing a north–south wildlife movement corridor connecting large habitat blocks north and south of U.S. Highway 50. Other existing General Plan requirements and development standards, such as the stream and sensitive riparian habitat setbacks identified in Section 130.30.030 of the Zoning Ordinance, would also help to ensure connectivity and movement is preserved in the County. Compared to the pattern of development and conservation under existing General Plan policies, the proposed project would result in reduced impacts to wildlife movement. However, as with the 2004 General Plan Policies, development allowed under the proposed project would result in significant and unavoidable impacts to wildlife movement due to the amount of habitat loss and fragmentation that would result from buildout of the General Plan. Opportunities for further reduction of these impacts are the same as discussed for oak woodlands impacts, including omitting the Agricultural Activities Exemption, establishing a minimum oak resource retention standard, and reducing development intensities. A minimum retention standard is evaluated as a project alternative in Chapter 10, while the other potential mitigation measures are considered infeasible, as discussed previously.

Impact BIO-4

Result in the removal, degradation, and fragmentation of sensitive habitats.

Determination: Significant and Unavoidable

2004 General Plan EIR Conclusions

The 2004 General Plan EIR found that the General Plan would have a significant impact related to removal, degradation, and fragmentation of sensitive habitats from urban and agricultural conversion as well as related ancillary activities. The 2004 General Plan EIR identified adoption of three implementation measures as mitigation for this impact, requiring the County to prepare and implement the INRMP, adopt a no-net-loss policy and mitigation program for important habitat, and adopt the IBC overlay. However, the EIR concluded that this impact would remain significant and unavoidable despite adoption of these mitigation measures because the adopted programs did not include specific standards that would allow the effectiveness of these measures to be predicted and because the policies required no more than a 1:1 replacement for sensitive habitat.

TGPA-ZOU EIR Conclusions

The TGPA-ZOU EIR found that the proposed amendments and update would have a significant and unavoidable impact on sensitive habitats, despite implementation of mitigation measures. The TGPA-ZOU EIR noted that consideration of this impact is similar to the analysis of impacts to wildlife habitat under Impact BIO-1, but noted that this analysis is specific to sensitive habitat and considers habitat degradation as well as habitat loss.

Project Impacts

In this EIR, "sensitive habitat" is defined as special-status vegetation communities as well as other vegetation communities that provide habitat for special-status species. Therefore, Impact BIO-4 is very similar to Impact BIO-1. This impact does differ from Impact BIO-1 in that it considers habitat degradation in addition to its loss. All of the project components described as significant and unavoidable under Impact BIO-1 would also be significant and unavoidable under Impact BIO-4.

Oak Resources Management Plan

Of the oak woodlands types in El Dorado County, only valley oak woodlands is identified as a sensitive habitat (2004 General Plan EIR [El Dorado County 2004]; Table 6-5). Additionally, while individual valley oak trees are not considered a sensitive species, they are the primary component of valley oak woodland, a sensitive habitat, and have relatively small representation in the County (less than 4,000 acres). Additionally, valley oaks have documented difficulty regenerating adequately to stabilize and expand populations (McCreary and Tecklin 2005, Standiford 2016).

Impacts to all oak woodlands types resulting from the proposed project are evaluated under Impact BIO-1. Based on the analysis of oak woodlands impacts occurring under anticipated General Plan buildout, 247 acres of valley oak woodlands could be impacted by 2025 with impacts to another 154 acres of valley oak woodlands occurring between 2025 and 2035 (total impact of 401 acres of valley oak woodlands by 2035). These figures represent the total valley oak woodlands area occurring on parcels designated for residential, commercial, retail, and industrial development in 2025 or 2035 and likely overestimate potential impacts due to the assumption that 100% of the oak woodlands on any given parcel that becomes developed would be lost. Additionally, these figures do not include impacts associated with development of agricultural activities and production, which would be exempt from mitigation requirements.

Mitigation for the anticipated impacts to 401 acres of valley oak woodland would be required, as outlined in the ORMP, with the exception of impacts exempted under the Single-Family Lot Exemption (8 acres of valley oak woodland) and the Affordable Housing Exemption (31 acres of valley oak woodland[4]). Therefore, 362 acres of oak woodlands impacted under the General Plan buildout (2035) would be mitigated at no less than a 1:1 ratio. Depending on the extent of impacts at the project level, the mitigation ratio may reach 1.5:1 or 2:1. This could result in mitigation of up to 543 acres of valley oak woodlands (1.5:1 ratio) or 724 acres of valley oak woodlands (2:1 ratio).

Valley oak woodlands impacts associated with all of the exemptions included in the ORMP total 2,236 acres, as presented in Tables 6-7 through 6-12. This total is based on available datasets and likely overestimates the acreage of oak woodlands impacted under exempt activities and actions given the datasets analyzed (e.g., transmission line buffers, fire safe project areas). Impacts to individual valley oak trees associated with the exemptions in the ORMP are not quantifiable. While the acres presented in Tables 6-7 through 6-12 likely overestimate impacts from exempt activities, valley oak tree and woodland impacts associated with ORMP exemptions would result in the loss and fragmentation of valley oak woodlands and the loss of individual valley oak trees without mitigation. This would be a significant impact due to the loss and degradation of a sensitive habitat. Mitigation Measure BIO-2 requires that the ORMP be modified to require mitigation for impacts to valley oak tree and valley oak woodlands impacts for all activiites, including all of the proposed exempt activities. The exempt activities would therefore be exempt from mitigation only for impacts to other oak woodland types. With implementation of Mitigation Measure BIO-2, unmitigated impacts to valley oak woodlands would be reduced by 2,236 acres, and all impacts to valley oak woodlands and individual valley oak trees would be mitigated, as outlined in the ORMP. This would reduce this impact to less than significant.

[4] The valley oak woodland acreage calculated for the Affordable Housing Exemption is an overestimate of that which would be entirely exempt from mitigation, as a portion of that impacted acreage would require mitigation at a reduced ratio. However, for the purposes of this analysis, a conservative value of 31 acres is used.

General Plan Biological Resources Policies and Objectives

Implementation of the proposed General Plan Biological Resources Policies and Objectives could result in loss and degradation of habitat. The maximum projected loss of habitat is presented in Impact BIO-1, Table 6-15.

The proposed Biological Resources Mitigation Program requires that a site-specific biological resources technical report be prepared for each project, which would identify any sensitive habitat that might be present on a parcel. Proposed Policies 7.4.2.8 and 7.4.2.9 would also require that preservation offset impacts from all types of land cover conversion, including loss of sensitive habitats. Policy requirements would ensure that preserved lands would be on a minimum contiguous block of 5 acres, and the proposed policies establish selection criteria for preservation areas that emphasize connectivity with adjacent preserved parcels. Implementation of these policy requirements would avoid habitat fragmentation to the extent possible and provide preservation or creation of sensitive habitat as mitigation.

Conclusions

Overall, Impact BIO-4 would have effects similar to those described for Impact BIO-1. Buildout of the General Plan under the proposed general plan policies would result in the loss of approximately 21,182 acres of a wide range of sensitive habitats. In addition, an unquantified amount of additional sensitive habitat would be degraded as a result of buildout of the General Plan. While the proposed policies would require preservation and creation of habitat to offset this loss, there would be a net decrease in the amount of sensitive habitat within the County. Compared to the pattern of development and conservation under existing General Plan policies, the proposed project would result in reduced impacts to sensitive habitats by ensuring a greater amount of habitat preservation and creation than is required under the existing policies. However, as with the 2004 General Plan Policies, development allowed under the proposed project would result in significant and unavoidable impacts due to the extent of the overall loss of sensitive habitats.

6.4 MITIGATION MEASURES

Mitigation Measure BIO-1: Conservation Area Monitoring. The Biological Resources Mitigation Program developed by the County under proposed Policy 7.4.2.8 shall be revised to include requirements for periodic monitoring of preserved lands by individual development project applicants or their designee to assess effectiveness of the Program for protection of special-status and native species. Prior to final approval of an individual development project, the applicant shall demonstrate to the County that they have a comprehensive monitoring strategy in place for preserved lands, and that funding is secured to implement the monitoring strategy in perpetuity.

Mitigation Measure BIO-2: Require Mitigation for Valley Oak Tree and Valley Oak Woodlands Impacts. The exemptions section of the ORMP and the Oak Resources Conservation Ordinance shall be revised such that no activities shall be exempt from the requirement to mitigate impacts to valley oak woodlands and individual valley oak trees.

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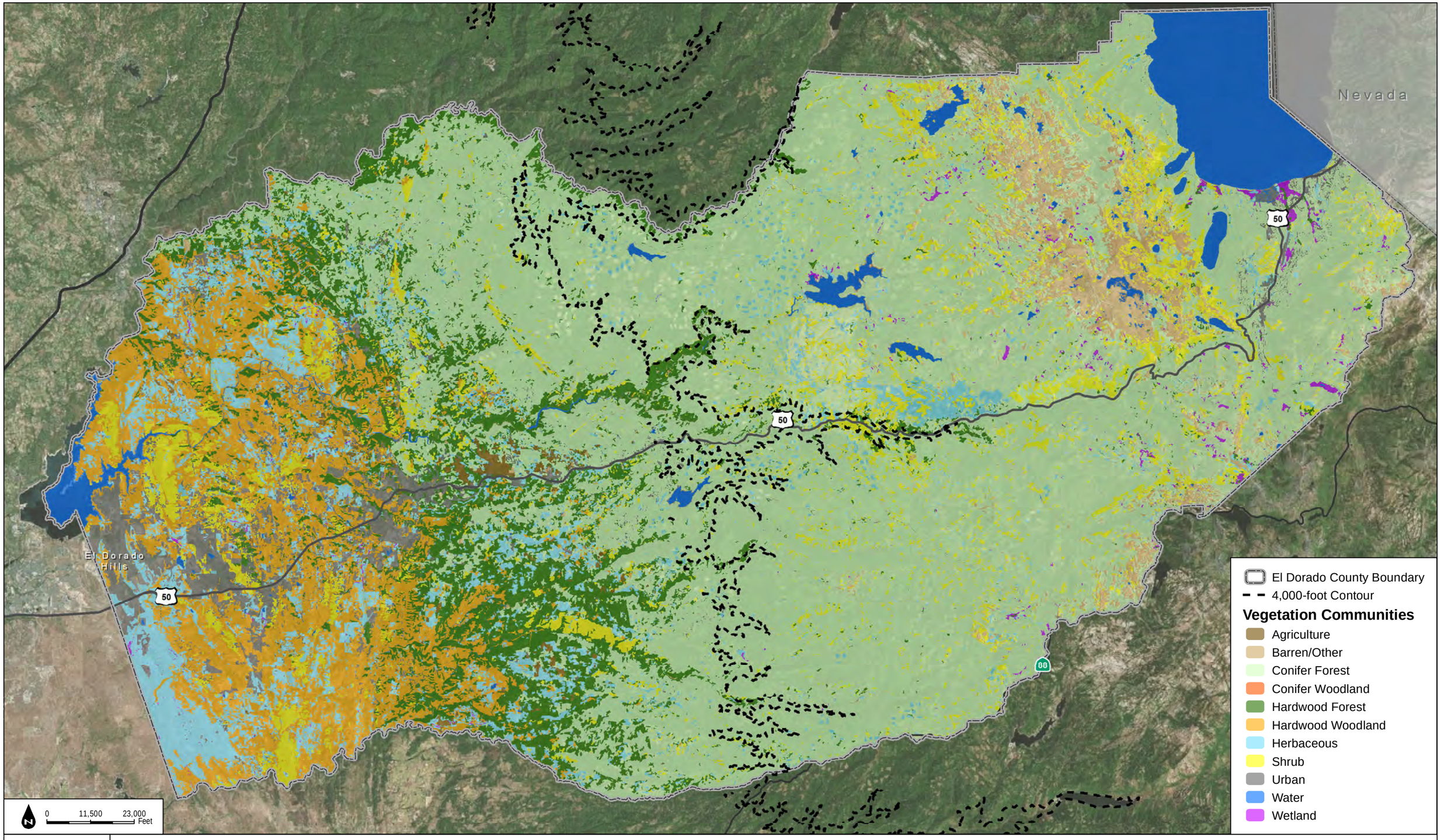

SOURCE: Bing Maps 2016; FRAP 2015

FIGURE 6-1

Existing Vegetation Communities

DUDEK

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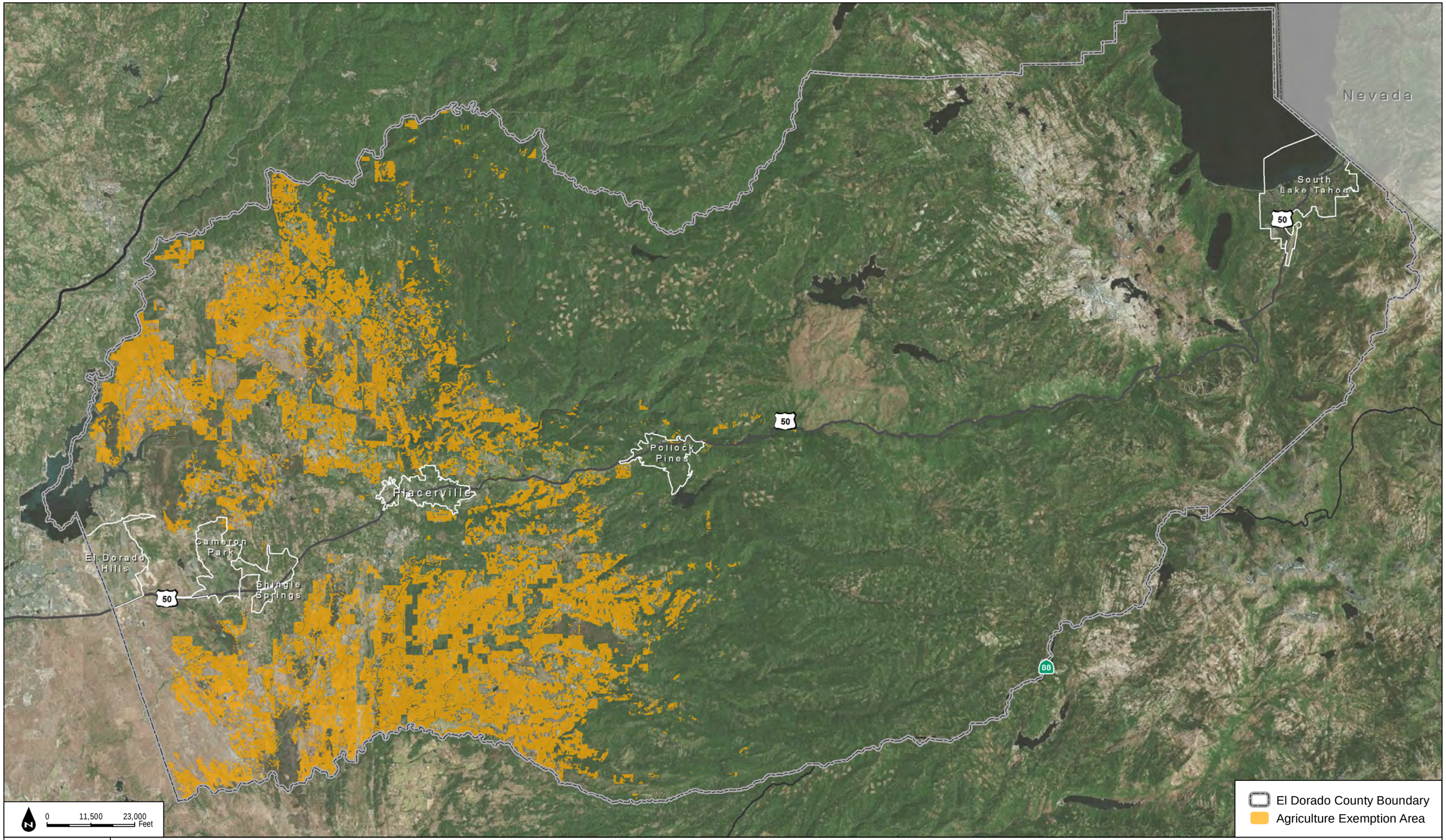

SOURCE: Bing Maps 2016; El Dorado County 2016

FIGURE 6-2
Agriculture Exemption Area

DUDEK

Biological Resources Policy Update and Oak Resources Management Plan Administrative Draft EIR

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CHAPTER 7
FORESTRY RESOURCES

This section addresses potential impacts to forestry resources, including the loss of forest lands and the conversion of forest lands to non-forest lands, related to the Oak Resources Management Plan (ORMP).

7.1 ENVIRONMENTAL SETTING

The geographical extent of the area within which potential impacts to forestry resources were evaluated is the ORMP Area. The ORMP Area encompasses approximately 560,000 acres and includes the area within El Dorado County below 4,000 feet in elevation, excluding the City of Placerville. Additionally, the extent of analysis was limited to the areas classified as oak woodlands, as defined in the ORMP[1]. The oak woodland communities in the ORMP Area located below 4,000 feet in elevation consist of blue oak woodland, blue oak-foothill pine, coastal oak woodland, montane hardwood, montane hardwood-conifer, and valley oak woodland. A description of these oak woodland types is presented in Chapter 6, Biological Resources. The acreage of each oak woodland type within the ORMP Area is presented in Table 7-1 and was derived from the 2015 Fire and Resource Assessment Program vegetation coverage dataset made available by the California Department of Forestry and Fire Protection (CAL FIRE). Figure 6-1 in Chapter 6 presents the distribution of vegetation types in El Dorado County, including oak woodlands.

Table 7-1
Acreage of Oak Woodland Types in the ORMP Area (2015 FRAP Data)

Oak Woodland Type	CWHR Code	Acreage	Percent of ORMP Area Under 4,000 Feet Elevation
Blue oak woodland	BOW	46,521	18.9%
Blue oak-foothill pine	BOP	64,740	26.2%
Coastal oak woodland	COW	2	<0.1%
Montane hardwood	MHW	98,930	40.1%
Montane hardwood-conifer	MHC	32,643	13.2%
Valley oak woodland	VOW	3,970	1.6%
	Total	**246,806**	**100%**

Source: CAL FIRE 2015
CWHR = California Wildlife Habitat Relationships; FRAP = Fire and Resource Assessment Program

[1] The ORMP defines oak woodlands as an oak stand with a greater than 10 percent canopy cover or that may have historically supported greater than 10 percent canopy cover, consistent with California Fish and Game Code Section 1361.

7.2 REGULATORY SETTING

Federal Regulations

The Biological Resource Policy Update and ORMP (project) would not affect land use activities on federal lands in El Dorado County nor would actions and activities on federal lands in El Dorado County be subject to requirements included in the revised General Plan policies and/or ORMP. There are no federal regulations applicable to the analysis included in this environmental impact report (EIR).

State Regulations

California Public Resources Code

The California Public Resources Code defines forest land and timberland as presented below:

- Public Resources Code Section 12220(g) defines forest land as land that can support 10% native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits.
- Public Resources Code Section 4526 defines timberland as land, other than land owned by the federal government and land designated by the board as experimental forest land, that is available for, and capable of, growing a crop of trees of a commercial species used to produce lumber and other forest products, including Christmas trees.

California Government Code

The California Government Code includes definitions applicable to the project, including those listed below:

- Section 51104(g) defines "timberland production zone" (TPZ[2]) to mean an area that has been zoned pursuant to Section 51112 or 51113 and is devoted to and used for growing and harvesting timber, or for growing and harvesting timber and compatible uses. Compatible uses are defined under Section 51104(h) and include the construction and maintenance of electric transmission facilities.

[2] Note: the initialism TPZ is used to represent "Timberland Production Zone" and "Timberland Preserve Zone" interchangeably in California Government Code Section 51110, and "Timber Production Zone" in El Dorado County Section 130.21.010. All terms are intended to represent land zoned for the purposes of growing and harvesting timber. The initialism TPZ used in this chapter refers to land with such zoning.

- Section 51112 identifies situations that would warrant a decision that a parcel is not devoted to and used for growing and harvesting timber or for growing and harvesting timber and compatible uses.
- Section 51113 allows the opportunity for a landowner to petition that his or her land be zoned for timberland production.

California Forest Taxation Reform Act of 1976

This state law protects timberland from conversion to other uses by offering land owners a property tax incentive to maintain their land for timber production. This preferential taxation arrangement operates similarly to the Williamson Act, with 10-year rolling contracts. Contracted lands must be zoned by the county for timber production in order to be eligible. This program is limited to tree species that are suitable for commercial timber harvesting, primarily softwoods, and does not apply to oak woodlands.

California Timberland Productivity Act of 1982

The California Timberland Productivity Act (Government Code Section 51100 et seq.) establishes the statewide basis for timberland production zoning. A county may zone lands for timberland production (TPZ) and thereby qualify the landowner for the preferential taxation provided for under the Forest Taxation Reform Act. Land within a TPZ is restricted to growing and harvesting timber and other compatible uses approved by the county. The use of this land must be "enforceably restricted" to growing and harvesting timber in order to qualify for preferential taxation.

Under the Act, "compatible use" is defined as follows:

> "…any use which does not significantly detract from the use of the property for, or inhibit, growing and harvesting timber, and shall include, but not be limited to, any of the following, unless, in a specific instance, such a use would be contrary to the preceding definition of compatible use.
>
> 1. Management for watershed.
> 2. Management for fish and wildlife habitat or hunting and fishing.
> 3. A use integrally related to the growing, harvesting, and processing forest products, including … roads, log landings, and log storage areas.
> 4. The erection, construction, alteration, or maintenance of gas, electric, water, or communication transmission facilities.
> 5. Grazing.

6. A residence or other structure necessary for the management of land zoned as timberland production."

Z'berg-Nejedly Forest Practice Act of 1973

Commercial harvesting of timber on lands under the jurisdiction of the County of El Dorado (County), whether or not the property is under timberland contract, is regulated under the state's Z'berg-Nejedly Forest Practice Act (Public Resources Code Section 4511 et seq.) and the related Forest Practice Rules (Title 14, California Code of Regulations Chapters 4, 4.5, and 10). Through this legislation, the state has established a comprehensive and specialized program for reviewing and regulating the harvesting of timber. Harvest is strictly regulated through the review and approval of plans (e.g., Timber Harvesting Plan) by CAL FIRE. Timber harvesting operations on non-federal lands in California that are regulated by CAL FIRE are considered a certified program under the California Environmental Quality Act (CEQA). Such operations have been certified by the State Secretary for Resources as being exempt from the requirements to prepare environmental impact reports (EIRs), Negative Declarations, and Initial Studies. A Timber Harvesting Plan was determined to be a functional equivalent of an EIR; therefore, the environmental effects of oak resources impacts occurring during approved timber harvesting operations would be analyzed in a Timber Harvesting Plan.

Local Regulations

El Dorado County 2004 General Plan

The County General Plan and Zoning Ordinance regulate land uses in the unincorporated areas of the County. The importance of agriculture and forestry to the County is reflected in the General Plan's Agriculture and Forestry Element. Through this element, the County has adopted extensive policies relating to the conservation, management, and use of the County's agricultural and forest lands "as fundamental components of the County's rural character and way of life" (County of El Dorado 2015a). In addition to extensive policies supportive of agriculture (including timber), the element makes the following broad policy statement (County of El Dorado 2015a):

> In recent years, large influxes of new residents have resulted in increased development and thus a changed landscape. While this growth has benefited the County in many ways, the low-density residential growth has threatened important agricultural and forest lands. Prudent management of the County's agriculture and forestry resources is needed to provide future generations with opportunities to experience both the economic benefits and rural lifestyle residents now enjoy. This prudent management strategy involves maintenance of

large parcel sizes and the minimization of incompatible land use encroachment into these resource rich lands.

The following selected objectives and policies in the Agriculture and Forestry Element are pertinent to the proposed project, but are only a sampling of the extensive policy guidance set out in the County's General Plan (County of El Dorado 2015a):

Objective 8.3.2: Conservation of Forest Lands. Protect and conserve lands identified as suitable for commercial timber production within the County that are important to the local forest product industry and forest lands that serve other values such as watershed, wildlife habitat, recreation, hydroelectric power generation, grazing, mineral extraction, or other resource based uses.

Objective 8.3.3: Long-Term Forest Resources. Ensure long-term viability of forest resources and timber production.

Policy 8.3.3.1: Forest lands are reserved for multiple use purposes directly related to timber production, mineral resource extraction, wildlife, grazing, and recreation.

Policy 8.3.3.2: The Natural Resource land use designation shall be applied for the purposes of conserving and protecting important forest lands and maintaining viable forest based communities. In determining whether particular lands constitute important forest lands, the Board of Supervisors shall consider the advice of the Agricultural Commission.

El Dorado County Zoning Ordinance

The General Plan establishes policies to guide the County's land use decision making, and the Zoning Ordinance consists of enforceable regulations on the use of County land. The unincorporated area is broken into various residential, commercial, industrial, agricultural, and other "zones," with the standards and regulations applicable to each particular zone described in the Zoning Ordinance. Zoning maps illustrate how the zoning districts are distributed throughout the County.

Timberland that is subject to the Forest Taxation Reform Act of 1976 is zoned TPZ. Land uses are generally restricted to resource uses, and a residence is allowed only upon approval of a special use permit. Timber harvesting is not restricted to TPZ parcels. For example, timber harvesting and production is also allowed on properties zoned Forest Resource (FR) and Transportation Corridor (TC). Timber harvesting is regulated by the state, as described above.

7.3 IMPACTS

As described in Chapter 2, Project Description, the project is proposing a limited number of policy revisions to the biological resource objectives, policies, and implementation measures contained in the Conservation and Open Space Element of the 2004 General Plan, and is proposing adoption of the ORMP and implementing ordinance (Oak Resources Conservation Ordinance). This DEIR analyzes whether development under the proposed General Plan objectives, policies, and implementation measures and ORMP would result in adverse effects associated with forestry resources. Specifically, the analysis in this chapter evaluates if the proposed project would result in loss or conversion of forest land to non-forest use specifically as it relates to oak woodlands.

Significance Criteria

Appendix G of the CEQA Guidelines evaluates agricultural and forestry resources within the same section. The Initial Study prepared for the proposed project (see Appendix A) concluded that the proposed project would have no impact related to agricultural resources according to the guidelines listed below:

- Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.
- Conflict with existing zoning for agricultural use, or a Williamson Act contract.
- Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code, Section 51104(g)).

This DEIR evaluates the potential for the proposed project to:

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

Impact FOR-1

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

Determination: Significant and Unavoidable

2004 General Plan EIR and TGPA-ZOU EIR Conclusions

The Agriculture and Forestry Resources chapter of the 2004 El Dorado County General Plan EIR evaluated whether the General Plan would (1) convert forest land zoned TPZ, AE, or TC to non-forestry uses; (2) convert land currently in timber production to non-forestry uses; or (3) create an obstacle to processing of timber resources in the County. The 2004 General Plan EIR determined that the General Plan would have a less-than-significant impact on forestry resources in the County (County of El Dorado 2004). The final El Dorado County Targeted General Plan Amendment and Zoning Ordinance Update (TGPA-ZOU) Program EIR (County of El Dorado 2015b) evaluated whether the TGPA-ZOU project would convert timberland, including lands currently in timber production and lands zoned for timber production, to non-forestry uses. Impacts to forestry resources under the TGPA-ZOU Program EIR were determined to be less than significant with mitigation. Mitigation Measure AG-4 identified in the TGPA-ZOU Program EIR removed conditional use permit allowance from lands zoned as Forest Resources and TPZ, resulting in a less-than-significant impact determination.

Project Impacts

The proposed project would not convert forest land. Instead, the proposed project would define the County's biological resource management and mitigation strategy. The proposed policies would establish requirements for identification of biological resources and analysis of impacts to those resources from future development within the County and identify standards for mitigation of such impacts. This impact analysis examined the extent to which the proposed project would result in changes to existing conditions, specifically considering how the proposed General Plan objectives, policies, and implementation measures and proposed ORMP may affect land that meets the criteria for classification as forest land. Because the proposed project does not propose any site-specific development activities, this analysis focuses on the potential indirect impacts of future development that could occur as a result of the proposed project.

Forest land is defined in Public Resources Code Section 12220(g) as land that can support 10% native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits. For the purposes of this analysis, oak woodlands located within the ORMP Area are considered to meet the definition of forest land. Timberland is defined in Public Resources Code Section 4526 as "land, other than land owned by

the federal government and land designated by the board as experimental forest land, which is available for, and capable of, growing a crop of trees of a commercial species used to produce lumber and other forest products, including Christmas trees." For the purposes of this analysis, oak woodlands located within the ORMP Area are not considered to be timberland, as none of the oak species in the County are classified as Group A commercial species in the California Forest Practice Rules (Title 14, California Code of Regulations, Chapters 4, 4.5, and 10). Two oak species (California black oak [*Quercus kelloggii*] and Oregon white oak [*Quercus garryana*]) are classified as Group B commercial species in the California Forest Practice Rules, but to be considered a commercial species, they must also be growing on lands dominated by Group A commercial species. Based on this classification, removal of California black oak or Oregon white oak trees on timberlands would be subject to approval and oversight by CAL FIRE.

The rationale for inclusion of forestry resources in the CEQA Appendix G checklist is discussed in the Final Statement of Reasons for Regulatory Action Amendments to the State CEQA Guidelines – Addressing Analysis and Mitigation of Greenhouse Gas Emissions Pursuant to SB97 (California Natural Resources Agency 2009). This document states that, prior to inclusion of forestry resources in the CEQA Appendix G checklist, questions related to greenhouse gas emissions were not sufficient to address impacts related to forestry resources, and that forest land conversions may result in impacts to greenhouse gas, aesthetics, recreation, biological resources, and water quality. Impacts to the biological resources values of oak woodland are addressed in Chapter 6, impacts to greenhouse gases are addressed in Chapter 8, and impacts to aesthetic values are addressed in Chapter 9 of this DEIR.

Impacts to oak woodlands related to recreation values were discussed in the proposed project's Initial Study, which determined that the project would have no impact on the provision of parks and recreation facilities in the County. In addition, based on an evaluation of oak woodland distribution data, County parcel data, and land ownership data, the oak woodlands potentially converted under both General Plan buildout scenarios (2025 and 2035) are privately owned and consequently do not currently offer recreation opportunities. Therefore, impacts of the proposed project to the recreation value of oak woodlands would be less than significant.

Impacts to oak woodlands related to water quality values were also discussed in the proposed project's Initial Study, which determined that the project would not result in an increase in the potential for adverse effects to hydrologic conditions, including water quality. Future development that proceeds under the General Plan would be subject to the proposed biological resource policies and ORMP, and could result in alterations to natural vegetation communities, including oak woodlands. Future development could also alter drainage patterns, volumes, and rates within a project site; however, all projects would be required to meet the applicable water quality and stormwater management requirements of the General Plan, the National Pollutant Discharge Elimination System, additional state and federal requirements (i.e., Department of Fish and Wildlife

and U.S. Army Corps of Engineers), and local stormwater quality standards and ordinances. These requirements would not be altered as a result of the proposed project. Therefore, impacts of the proposed project to the water quality value of oak woodlands would be less than significant.

The oak woodland areas of the County covered under the ORMP do not meet the definition of timberland, and impacts to recreation and water quality values would be less than significant. However, the oak woodland areas of the County covered under the ORMP do meet the definition of forest land. As addressed in other chapters of this DEIR, impacts to the biological resources (Chapter 6), greenhouse gas (Chapter 8), and aesthetic (Chapter 9) values of oak woodlands are considered significant and unavoidable. Buildout of the General Plan could result in the loss of 6,442 acres of forest land by 2035 resulting in a significant and unavoidable impact.

Impact FOR-2

> 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.
>
> **Determination:** Significant and Unavoidable

2004 General Plan EIR and TGPA-ZOU EIR Conclusions

A summary of impact conclusions reached in the 2004 El Dorado County General Plan EIR (County of El Dorado 2004) and the final El Dorado County Targeted General Plan Amendment and Zoning Ordinance Update (TGPA-ZOU) Program EIR (County of El Dorado 2015b) is presented for Impact FOR-1. These documents did not specifically evaluate whether the project would involve other changes in the existing environment that could result in conversion of forest land to non-forest use.

Project Impacts

The proposed project would not involve changes to the existing environment, as no specific development is proposed. Rather, the proposed project would define the County's biological resource management and mitigation strategy. The proposed policies would establish requirements for identification of biological resources and analysis of impacts to those resources from future development within the County and identify standards for mitigation of such impacts. The ORMP would also outline the County's strategy for oak woodland conservation. Potential indirect impacts of future development that could occur as a result of the proposed project are addressed under Impact FOR-1. As identified under Impact FOR-1, impacts to recreation and water quality values would be less than significant. Impacts to the biological resources, greenhouse gas, and aesthetic values of oak woodlands would be significant and unavoidable, as addressed in other chapters of this DEIR. Buildout of the General Plan could

result in the conversion of 6,442 acres of forest land to non-forest use by 2035 and is considered a significant and unavoidable impact.

7.4 MITIGATION MEASURES

The proposed project would result in significant and unavoidable impacts related to Forestry Resources. Implementation of *Mitigation Measure BIO-2 (Require Mitigation for Valley Oak Tree and Valley Oak Woodlands Impacts)* would require mitigation for all impacts to valley oak woodlands thereby reducing un-mitigated impacts; however, this measure would not reduce impacts to Forestry Resources to less than significant.

CHAPTER 8
GREENHOUSE GASES

This section identifies the types and sources of greenhouse gases (GHGs) in the region and state, discusses climate change effects, and evaluates the potential for the Biological Resource Policy Update and Oak Resources Management Plan (ORMP) (proposed project) to contribute to climate change, particularly through a loss of carbon sequestration.

Comments regarding GHGs received in response to the Notice of Preparation request analysis of the GHG impacts associated with the loss of woodland habitat and the associated carbon sequestration are included in Appendix A of this environmental impact report (EIR). The Notice of Preparation and Initial Study are also included in Appendix A.

8.1 ENVIRONMENTAL SETTING

The Greenhouse Gas Effect and Greenhouse Gases

The Earth's climate is determined by the balance between energy received from the sun and energy emitted back to space from the Earth and its atmosphere. Certain gases in the atmosphere, such as carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), water vapor, and others, trap some of the outgoing energy, retaining heat in the Earth's atmosphere. Such gases are called GHGs. This greenhouse effect is a natural process that contributes to regulating the Earth's temperature. Without it, the temperature of the Earth would be about 0°F instead of its present 57°F. Global climate change concerns are focused on whether human activities are leading to an enhancement of the greenhouse effect (National Climatic Data Center 2014).

Principal GHGs include CO_2, CH_4, N_2O, ozone, and water vapor. Some GHGs, such as CO_2, CH_4, and N_2O, occur naturally and are emitted to the atmosphere through natural processes and human activities. Of these gases, CO_2 and CH_4 are emitted in the greatest quantities from human activities. Emissions of CO_2 are largely byproducts of fossil fuel combustion, whereas CH_4 results mostly from off-gassing associated with agricultural practices and landfills. Human-created GHGs, which have a much greater heat-absorption potential than CO_2, include fluorinated gases such as hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF_6), and nitrogen trifluoride, which are associated with certain industrial products and processes (CAT 2006).

Changes in GHG emissions are influenced by many long-term factors, including population and economic growth, land use, energy prices, technological changes, and inter-annual temperatures. On an annual basis, combustion of fossil fuels, which accounts for most GHG emissions in the United States, generally fluctuates in response to changes in economic conditions, energy prices, weather, and the availability of non-fossil alternatives.

The effect each GHG has on climate change is measured as a combination of the mass of its emissions and the potential of a gas or aerosol to trap heat in the atmosphere, known as its "global warming potential" (GWP). GWP varies between GHGs; for example, the GWP of CH_4 is 21, and the GWP of N_2O is 310. Total GHG emissions are expressed as a function of how much warming would be caused by the same mass of CO_2. Thus, GHG gas emissions are typically measured in terms of pounds or tons of "CO_2 equivalent" (CO_2E).

Greenhouse Gas Emissions

In 2013, the United States produced 6,673 million metric tons (MMT) of CO_2E. The primary GHG emitted by human activities in the United States was CO_2. This primary GHG represented approximately 82.5% of total GHG emissions. The largest source of CO_2, and of overall GHG emissions, was fossil-fuel combustion, which accounted for approximately 93.7% of CO_2 emissions (EPA 2016). The primary sources of CH_4 emissions include domestic livestock sources, decomposition of wastes in landfills, releases of natural gas systems, coal mine seepage, and manure management. The main human activities producing N_2O are agricultural soil management, fuel combustion in motor vehicles, nitric acid production, manure management, and stationary fuel combustion.

According to the 2013 GHG inventory data compiled by the California Air Resources Board (CARB) for the California Greenhouse Gas Inventory for 2000–2013, California emitted 459 MMT CO_2E of GHGs, including emissions resulting from out-of-state electrical generation (CARB 2015). The primary contributors to GHG emissions in California are transportation, industry, electric power production from both in-state and out-of-state sources, agriculture, and other sources, which include commercial and residential activities. These primary contributors to California's GHG emissions and their relative contributions in 2013 are presented in Table 8-1, GHG Sources in California (2013).

Table 8-1
GHG Sources in California (2013)

Source Category	Annual GHG Emissions (MMT CO_2E)	Percent of Total[a]
Transportation	169.02	37%
Industrial	92.68	20%
Electricity Generation	90.45b	20%
Residential and Commercial	43.54	9%
Agriculture	36.21	8%
High GWP Substances	18.5	4%
Recycling and Waste	8.87	2%
Totals	**459.28**	**100%**

Source: CARB 2015

[a] Percentage of total has been rounded.

[b] Includes emissions associated with imported electricity, which account for 39.99 MMT CO_2E annually.

Potential Effects of Human Activity on Climate Change

According to CARB, some of the potential impacts of global warming in California may include loss in snow pack, sea-level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years (CARB 2006). Several recent studies have attempted to explore the possible negative consequences that climate change, left unchecked, could have in California. These reports acknowledge that climate scientists' understanding of the complex global climate system, and the interplay of the various internal and external factors that affect climate change, remain too limited to yield scientifically valid conclusions on such a localized scale. Substantial work has been done at the international and national level to evaluate climatic impacts, but far less information is available about regional and local impacts.

Although climate change is driven by global atmospheric conditions, climate change impacts are felt locally. Climate change is already affecting California: average temperatures have increased, which has led to more extreme hot days and fewer cold nights; shifts in the water cycle have been observed, with less winter precipitation falling in the form of snow, and snowmelt and rainwater running off earlier in the year; sea levels have risen; and wildland fires are becoming more frequent and intense due to dry seasons that start earlier and end later (CAT 2010a). The primary effect of global climate change has been a rise in average global tropospheric temperature of 0.2°C per decade, determined from meteorological measurements worldwide between 1990 and 2005. Climate change modeling using emissions rates from 2000 shows that further warming would occur, which would induce further changes in the global climate system during the current century. Changes to the global climate system and ecosystems, and to California, would include the following:

- The loss of sea ice and mountain snow pack, resulting in higher sea levels and higher sea-surface evaporation rates with a corresponding increase in tropospheric water vapor due to the atmosphere's ability to hold more water vapor at higher temperatures (IPCC 2007).
- A rise in global average sea level, primarily due to thermal expansion and melting of glaciers and ice caps and the Greenland and Antarctic ice sheets (IPCC 2007).
- Changes in weather that includes widespread changes in precipitation, ocean salinity, and wind patterns, and more energetic aspects of extreme weather, including droughts, heavy precipitation, heat waves, extreme cold, and the intensity of tropical cyclones (IPCC 2007).
- A decline of the Sierra Nevada snowpack, which accounts for approximately half of the surface water storage in California, by 70% to as much as 90% over the next 100 years (CAT 2006).

- An increase in the number of days conducive to ozone formation by 25% to 85% (depending on the future temperature scenario) in high ozone areas of Los Angeles and the San Joaquin Valley by the end of the 21st century (CAT 2006).
- High potential for erosion of California's coastlines and sea water intrusion into the California Delta and levee systems due to the rise in sea level (CAT 2006).

Uncertainty Regarding Global Climate Change

The scientific community agrees, based on substantial evidence, that the Earth is warming and that humans are contributing to that change. However, the Earth's climate is composed of many complex mechanisms, including ocean currents, cloud cover, the jet-stream, and other pressure/temperature weather guiding systems. These systems are, in turn, influenced by changes in ocean salinity, changes in the evapotranspiration of vegetation, the reflectivity (albedo) of groundcover, and numerous other factors. Some changes have the potential to reduce climate change, while others could form a feedback mechanism that would speed the warming process beyond what is currently projected. The climate system is inherently dynamic; however, the overall trend is toward a gradually warming planet.

Global Climate Change Analysis

Analyzing global warming presents several unique challenges, largely because of the need to consider the contribution of local actions to this "global" condition. The magnitude of global warming effects is so substantial and the contribution of an individual project to global warming is so small that direct impacts would be highly unlikely. A global climate change analysis must be conducted on a global level, rather than the typical local or regional setting, and requires consideration of not only emissions from the proposed project under consideration, but also the extent of the displacement, translocation, and redistribution of emissions. In contrast to the usual context of an air quality analysis, which is linked to a particular location or area, in a climate change analysis, it is appropriate to consider whether or not the GHG emissions related to a project are truly "new" emissions to the overall globe. In fact, the approval of a new developmental plan or project does not necessarily create new automobile drivers—the primary source of a land use project's emissions. Rather, a new land use project may simply be redistributing existing mobile emissions; accordingly, the use of models that measure overall emissions increases without accounting for existing emissions will substantially overstate the impact of a development project on global warming.

8.2 REGULATORY SETTING

GHG emissions are monitored through the efforts of various international, federal, state, regional, and local government agencies. The agencies work jointly and individually to reduce

GHG emissions through legislation, regulations, planning, policy-making, education, and a variety of programs. The agencies responsible for regulating climate change and GHG emissions are discussed in the following text.

International Regulations

In 1988, the United Nations established the Intergovernmental Panel on Climate Change to evaluate the impacts of global warming and to develop strategies that nations could implement to curtail global climate change. In 1992, the United States joined other countries around the world in signing the United Nations' Framework Convention on Climate Change agreement with the goal of controlling GHG emissions. As a result, the Climate Change Action Plan was developed to address the reduction of GHGs in the United States. The Climate Change Action Plan currently consists of more than 50 voluntary programs.

Federal Regulations

Federal Clean Air Act

In 2007, in *Massachusetts v. U.S. Environmental Protection Agency*, the U.S. Supreme Court directed the U.S. Environmental Protection Agency (EPA) administrator to determine whether GHG emissions from new motor vehicles cause or contribute to air pollution that may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. In making these decisions, the EPA administrator was required to follow the language of Section 202(a) of the Clean Air Act. In 2009, the administrator signed a final rule with two distinct findings regarding GHGs under Section 202(a) of the Clean Air Act:

- The elevated concentrations of GHGs—CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6—in the atmosphere threaten the public health and welfare of current and future generations. This is referred to as the "endangerment finding."
- The combined emissions of GHGs—CO_2, CH_4, N_2O, and HFCs—from new motor vehicles and new motor vehicle engines contribute to the GHG air pollution that endangers public health and welfare. This is referred to as the "cause or contribute finding."

These two findings were necessary to establish the foundation for regulation of GHGs from new motor vehicles as air pollutants under the Clean Air Act.

To track the national trend in emissions and removal of GHG since 1990, the EPA develops the official U.S. GHG inventory each year. The national GHG inventory is submitted to the United Nations in accordance with the Framework Convention on Climate Change. The EPA's air quality mandates are drawn primarily from the federal Clean Air Act, which was signed into law in 1970. Congress substantially amended the Clean Air Act in 1977 and again in 1990.

Energy Independence and Security Act

The Energy Independence and Security Act of 2007 would do the following to aid in the reduction of national GHG emissions:

1. Increase the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard requiring fuel producers to use at least 36 billion gallons of biofuel by 2022.
2. Set a target of 35 miles per gallon for the combined fleet of cars and light trucks by model year 2020 and direct the National Highway Traffic Safety Administration (NHTSA) to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for work trucks.
3. Prescribe or revise standards affecting regional efficiency for heating and cooling products and procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances.

EPA and NHTSA Joint Final Rule for Vehicle Standards

In 2010, the EPA and NHTSA adopted a joint final rule to establish a national program consisting of new standards for light-duty vehicles model years 2012 through 2016 (EPA 2010), and in 2012, the EPA and NHTSA approved a second round of GHG and Corporate Average Fuel Economy standards for model years 2017 and beyond (77 Federal Register [FR] 62624–63200). The joint rule is intended to reduce GHG emissions and improve fuel economy. The rules will simultaneously reduce GHG emissions, improve energy security, increase fuel savings, and provide clarity and predictability for manufacturers.

The regulations also include targeted incentives to encourage early adoption and introduction into the marketplace of advanced technologies to dramatically improve vehicle performance, including the following:

- Incentives for electric vehicles, plug-in hybrid electric vehicles, and fuel-cell vehicles.
- Incentives for hybrid technologies for large pickup trucks and for other technologies that achieve high fuel economy levels on large pickup trucks.
- Incentives for natural gas vehicles.
- Credits for technologies with potential to achieve real-world GHG reductions and fuel economy improvements that are not captured by the standard test procedures.

State Regulations

Assembly Bill 1493

California Assembly Bill (AB) 1493, known as Pavley, was enacted on July 22, 2002. AB 1493 requires that CARB develop and adopt regulations that achieve "the maximum feasible reduction of GHGs emitted by passenger vehicles and light-duty trucks and other vehicles determined by CARB to be vehicles whose primary use is noncommercial personal transportation in the state." On June 30, 2009, the EPA granted a waiver of Clean Air Act preemption to California for the state's GHG emissions standards for motor vehicles, beginning with the 2009 model year. Pursuant to the Clean Air Act, the waiver allows the state to have special authority to enact stricter air pollution standards for motor vehicles than the federal government's. CARB estimates that the regulation would reduce GHG emissions from the light-duty passenger vehicle fleet by an estimated 18% by 2020 and 27% by 2030.

Executive Order S-3-05

In June 2005, Governor Arnold Schwarzenegger established California's GHG emissions reduction targets in Executive Order S-3-05. The executive order established the following goals: GHG emissions should be reduced to 2000 levels by 2010, 1990 levels by 2020, and 80% below 1990 levels by 2050. The California Environmental Protection Agency secretary is required to coordinate efforts of various agencies to collectively and efficiently reduce GHGs. The Climate Action Team is composed of representatives from several state agencies and is responsible for implementing global warming emissions-reduction programs. Under the executive order, the California Environmental Protection Agency secretary must report biannually on progress made toward meeting the GHG targets and the impacts to California due to global warming, including impacts to water supply, public health, agriculture, the coastline, and forestry. The Climate Action Team fulfilled its initial report requirements through the 2006 Climate Action Team Report to Governor Schwarzenegger and the Legislature (CAT 2006).

The 2009 Climate Action Team Biennial Report, published in April 2010, expanded on the policy outlined in the 2006 assessment (CAT 2010b). The 2009 report provided information and scientific findings regarding development of new climate and sea-level projections using new information and tools that had recently become available. The report also evaluated climate change within the context of broader social changes, such as land use changes and demographics. In addition, the 2009 report identified the need for additional research to support effective climate change strategies. The aspects of climate change determined to require future research include vehicle and fuel technologies, land use and smart growth, electricity and natural gas, energy efficiency, renewable energy and reduced carbon energy sources, low-GHG technologies

for other sectors, carbon sequestration, terrestrial sequestration, geologic sequestration, economic impacts and considerations, social science, and environmental justice.

The subsequent 2010 Climate Action Team Report to Governor Schwarzenegger and the California Legislature (CAT 2010a) reviewed past climate action milestones, including voluntary reporting programs, GHG standards for passenger vehicles, the Low Carbon Fuel Standard, a statewide renewable energy standard, and the cap-and-trade program. Additionally, the 2010 report included a cataloguing of recent research and ongoing projects; mitigation and adaptation strategies identified by sector (e.g., agriculture, biodiversity, electricity, and natural gas); actions that can be taken at the regional, national, and international levels to mitigate the adverse effects of climate change; and today's outlook on future conditions.

Executive Order S-01-07

On January 18, 2007, Governor Schwarzenegger signed Executive Order S-01-07, which mandates that a statewide goal be established to reduce the carbon intensity of California's transportation fuels by at least 10% by 2020. The executive order also requires that a Low Carbon Fuel Standard for transportation fuels be established for California.

Assembly Bill 32

In September 2006, Governor Arnold Schwarzenegger signed AB 32, the California Climate Solutions Act of 2006. AB 32 delegated the authority for its implementation to CARB and directs CARB to enforce the statewide cap that would begin phasing in by 2012. Among other requirements, AB 32 required CARB to (1) identify the statewide level of GHG emissions in 1990 to serve as the emissions limit to be achieved by 2020, and (2) develop and implement a scoping plan to be implemented by January 1, 2012. Accordingly, CARB prepared the Climate Change Scoping Plan (Scoping Plan) for California, which was approved in 2008. The Scoping Plan establishes an overall framework for the measures that will be adopted to reduce California's GHG emissions. The Scoping Plan evaluates opportunities for sector-specific reductions, integrates all CARB and Climate Action Team early actions and additional GHG reduction measures by both entities, identifies additional measures to be pursued as regulations, and outlines the role of a cap-and-trade program. Based on the reduction goals called for in the 2008 Scoping Plan, a 29% reduction in GHG levels relative to a business-as-usual (BAU) scenario would be required to meet 1990 levels by 2020. A BAU scenario is a baseline condition based on what could or would occur on a particular site in the year 2020 without implementation of a project or any required or voluntary GHG reduction measures.

In 2011, the baseline, or projected 2020 BAU, level for the Scoping Plan was revised to account for the economic downturn and state regulation emissions reductions (i.e., Pavley, Low Carbon Fuel Standard, and Renewables Portfolio Standard). Accordingly, the Scoping Plan emissions

reduction target from projected 2020 BAU levels required to meet 1990 levels by 2020 was modified from 29% to 21% (where projected 2020 BAU levels are based on 2010 levels) or 16% (where the projected 2020 BAU levels are based on 2010 levels, including accounting for percentages of emissions reductions captured for implementation of Pavley and the Renewables Portfolio Standard). The amended Scoping Plan was reapproved on August 24, 2011.

In addition, to preparing the Scoping Plan, AB 32 requires CARB to adopt regulations for reporting and verifying statewide GHG emissions. This program is used to monitor and enforce compliance with the established standards. CARB is also required to adopt rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emissions reductions. AB 32 allows CARB to adopt market-based compliance mechanisms to meet the specified requirements. CARB is ultimately responsible for monitoring compliance and enforcing any rule, regulation, order, emissions limitation, emissions reduction measure, or market-based compliance mechanism adopted.

An update to the Scoping Plan (Scoping Plan Update) was adopted in May 2014 (CARB 2014). Based on new information, the Scoping Plan Update revised the 2020 emissions target to 431 MMT CO_2E (based on updated the GWP for GHGs), and also built on the initial Scoping Plan with new strategies and recommendations. The update identifies opportunities to leverage existing and new funds to further drive GHG emissions reductions through strategic planning and targeted low-carbon investments. The Scoping Plan Update defines CARB's climate change priorities for the next 5 years, and sets the groundwork to reach California's long-term climate goals set forth in Executive Orders S-3-05 and B-16-2012. Executive Order B-16-2012 directed state entities under the governor's direction and control to support and facilitate development and distribution of zero-emission vehicles. The governor's executive order sets a long-term target of reaching 1.5 million zero-emission vehicles on California's roadways by 2025. On a statewide basis, the executive order also establishes a target reduction of GHG emissions from the transportation sector equaling 80% less than 1990 levels by 2050.

The Scoping Plan Update highlights California's progress toward meeting the near-term 2020 GHG emissions reduction goals defined in the initial Scoping Plan. These efforts were pursued to achieve the near-term 2020 goal and created a framework for ongoing climate action that can be built on to maintain and continue economic sector-specific reductions beyond 2020, as required by AB 32. The Scoping Plan Update identifies key focus areas or sectors, including energy, transportation, agriculture, water, waste management, natural and working lands, short-lived climate pollutants, "green" buildings, and the cap-and-trade program. The update also recommends that a statewide mid-term target and mid-term and long-term sector targets be established toward meeting the 2050 goal established by

Executive Order S-3-05 to reduce California's GHG emissions to 80% below 1990 levels, although no specific recommendations are made.

For "natural and working lands," the Scoping Plan Update notes that natural landscapes, which comprise three-quarters of California's landmass, "provide a multitude of economic and environmental benefits, and must play an increasingly important role in California's efforts to prepare for and adapt to the impacts of climate change. Natural and working lands must also play a key role to help achieve California's long-term climate objectives" (CARB 2014). The Scoping Plan Update recognizes that natural and working lands act as both a source of GHG emissions and as a "carbon sink" that removes CO_2 from the atmosphere. As vegetation grows, carbon is sequestered; however, during periods of vegetation mortality or reduced growth, such as during a drought or due to pests and disease, carbon is emitted as plant material dies. Further, substantial CO_2 emissions can be generated from wildfire. The Scoping Plan Update concludes that "when sustainably managed, the potential for natural and working lands to reduce GHG emissions and sequester carbon is significant and will be critical to reaching California's long-term climate goals" (CARB 2014). The Scoping Plan Update also notes that urban forests are a key resource for carbon sequestration, and have the potential to reduce the urban heat island effect and reduce energy consumption for building cooling.

The initial Scoping Plan included a Sustainable Forest Target. The goal of this target was to maintain net carbon sequestration on forest lands. This was to be achieved using the mechanisms provided by the California Forest Practice Rules set by the California Department of Forestry and Fire Protection, timberland conversion regulations, fire safety requirements, forest improvement assistance programs, and the California Environmental Quality Act, which requires avoidance or mitigation of impacts affecting forest site productivity or forest carbon losses to conversion. To progress toward sustainable management of natural and working lands, the Scoping Plan Update requires the state to develop a Forest Carbon Plan that sets mid- and long-term GHG reduction targets, and identifies funding and investment needs. The goal of the Forest Carbon Plan is to ensure that California's natural and working lands are enhanced, protected, and conserved "in ways that will provide important climate benefits as well as a more resilient California that is better prepared for climate risks such as more frequent and severe wildfires, varying and unpredictable water availability, and stressors on species and natural communities" (CARB 2014).

Further, the Scoping Plan Update recommends that "it is important to take an integrated and coordinated approach to local land use planning that considers all land types, including urban, agricultural, and natural and working lands, within and across jurisdictions, to create interconnected land areas and ecosystems. Local and regional land use planning actions and policies need to more fully integrate and emphasize land conservation and avoided conversion of croplands, forests, rangelands, and wetlands, as well as expansion and promotion of urban

forestry, urban agriculture, and green infrastructure" (CARB 2014). The initial Scoping Plan also identified other opportunities to realize additional GHG emissions reductions and increase sequestration, including the following (CARB 2008):

- Preventing the conversion of forestlands through publicly and privately funded land acquisitions.
- Maintaining and enhancing forest stocks on timberlands through forest management practices subject to the Forest Practice Act.
- Planting trees on lands that were historically covered with native forests.
- Establishing forest areas where the preceding vegetation was not forest.
- Planting trees in urban areas.
- Using urban forest wood waste for bioenergy.
- Reducing vegetative fuels that could feed wildfires and using this waste for bioenergy.

Carbon sequestration is a key element for statewide GHG reduction planning, and current research is showing that loss of forests and other natural lands through fire, natural ecosystem succession, and conversion of forests and woodlands to other uses represents significant CO_2 release that may outpace carbon sequestration, possibly by substantial amounts (CARB 2014). The Scoping Plan Update concludes that "this information underscores the importance of managing our forests and other natural and working lands to maximize the net benefits—increasing sequestration while reducing conversion and carbon stock losses, and maximizing associated co-benefits" (CARB 2014).

Senate Bill 375

In September 2008, Governor Arnold Schwarzenegger signed Senate Bill 375, which is intended to build on AB 32 by attempting to control GHG emissions by curbing sprawl. Senate Bill 375 enhances CARB's ability to reach goals set by AB 32 by directing CARB to develop regional GHG emissions reduction targets to be achieved from the automobile and light truck sectors for 2020 and 2035. In addition, it directed CARB to work with the state's 18 metropolitan planning organizations, including the Sacramento Area Council of Governments, to align their regional transportation, housing, and land-use plans, and to prepare a Sustainable Communities Strategy to reduce the amount of vehicle miles traveled in their respective regions and demonstrate the region's ability to attain its GHG reduction targets. Senate Bill 375 provides incentives for creating walkable and sustainable communities and revitalizing existing communities, and allows home-builders to get relief from certain environmental reviews under the California Environmental Quality Act if they build projects consistent with the relevant Sustainable Communities Strategy. Further, Senate Bill 375 encourages development of alternative

transportation options to reduce traffic congestion. The Sacramento Area Council of Governments adopted its Sustainable Communities Strategy in April 2012.

California Building Code

The California Building Code contains standards that regulate the method of use, properties, performance, and types of materials used in the construction, alteration, improvement, repair, and rehabilitation of a building and other improvements to real property. The California Building Code is updated every three years by the Building Standards Commission. The Building Standards Commission also adopts annual updates to make mid-term corrections. The California Building Code applies statewide; however, a local jurisdiction may amend a standard if the jurisdiction makes a finding that the amendment is reasonably necessary due to local climatic, geological, or topographical conditions.

Title 24

Title 24 of the California Code of Regulations was established in 1978 and serves to enhance and regulate California's building standards. Although not initially promulgated to reduce GHG emissions, Part 6 of Title 24 establishes energy efficiency standards for residential and non-residential buildings constructed in California with an aim to reduce energy demand and consumption. Part 6 is updated periodically to incorporate and consider new energy efficiency technologies and methodologies. The most recent amendments, referred to as the 2013 standards, became effective on July 1, 2014. Buildings constructed in accordance with the 2013 standards use 25% less energy for lighting, heating, cooling, ventilation, and water heating compared to the 2008 standards. Additionally, the standards will save 200 million gallons of water per year and avoid 170,500 tons of GHG emissions per year (CEC 2014).

Local Regulations

El Dorado County Air Quality Management District

California has 35 Air Pollution Control Districts and Air Quality Management Districts, many of which are currently addressing climate change issues by developing significance thresholds, performance standards, and mitigation measures. At this time, there are no adopted quantitative federal or state guidelines for GHG emissions impacts. The El Dorado County Air Quality Management District was part of the committee of air districts in the Sacramento region involved in the development of GHG thresholds of 1,100 metric tons CO_2E per year for the construction phase of projects or the operational phase of land use development projects, or 10,000 direct metric tons CO_2E per year from stationary-source projects. If a project exceeds this threshold, the level of mitigation is based on demonstrating consistency with CARB's Climate Change Scoping

Plan and AB 32 goals for reducing GHG emissions, which is currently 21.7% reduction from 2020 "no action taken" emissions (SMAQMD 2014).

2004 El Dorado County General Plan

The following goals and policies from the El Dorado County General Plan Public Health, Safety, and Noise Element (County of El Dorado 2015a), and Transportation and Circulation Element (County of El Dorado 2015b) are applicable to the proposed project:

Objective 6.7.2: Vehicular Emissions. Reduce motor vehicle air pollution by developing programs aimed at minimizing congestion and reducing the number of vehicle trips made in the County and encouraging the use of clean fuels.

Policy 6.7.2.1: Develop and implement a public awareness campaign to educate community leaders and the public about the causes and effects of El Dorado County air pollution and about ways to reduce air pollution.

Policy 6.7.2.2: Encourage, both through County policy and discretionary project review, the use of staggered work schedules, flexible work hours, compressed work weeks, teleconferencing, telecommuting, and car pool/van pool matching as ways to reduce peak-hour vehicle trips.

Policy 6.7.2.5: Upon reviewing projects, the County shall support and encourage the use of, and facilities for, alternative-fuel vehicles to the extent feasible. The County shall develop language to be included in County contract procedures to give preference to contractors that utilize low emission heavy-duty vehicles.

Policy 6.7.2.6: The County shall investigate the replacement of its fleet vehicles with more fuel efficient alternative fuel vehicles (e.g., liquid natural gas, fuel cell vehicles).

Objective 6.7.3: Transit Service. Expand the use of transit service within the County.

Policy 6.7.3.1: Legally permissible trip reduction programs and the development of transit and ridesharing facilities shall be given priority over highway capacity expansion when such programs and facilities will help to achieve and maintain mobility and air quality.

Objective 6.7.4: Project Design and Mixed Uses. Encourage project design that protects air quality and minimizes direct and indirect emissions of air contaminants.

Policy 6.7.4.1: Reduce automobile dependency by permitting mixed land use patterns which locate services such as banks, child care facilities, schools, shopping centers,

and restaurants in close proximity to employment centers and residential neighborhoods.

Policy 6.7.4.2: Promote the development of new residential uses within walking or bicycling distance to the County's larger employment centers.

Policy 6.7.4.3: New development on large tracts of undeveloped land near the rail corridor shall, to the extent practical, be transit supportive with high density or intensity of use.

Policy 6.7.4.4: All discretionary development applications shall be reviewed to determine the need for pedestrian/bike paths connecting to adjacent development and to common service facilities (e.g., clustered mail boxes, bus stops, etc.).

Policy 6.7.4.5: Specific plans submitted to the County shall provide for the implementation of all policies contained under Objective 6.7.4 herein.

Policy 6.7.4.6: The County shall regulate wood-burning fireplaces and stoves in all new development. Environmental Protection Agency (EPA)-approved stoves and fireplaces burning natural gas or propane are allowed. The County shall discourage the use of non-certified wood heaters and fireplaces during periods of unhealthy air quality.

Objective 6.7.5: Agricultural and Fuel Reduction Burning. Adopt and maintain air quality regulations which will continue to permit agricultural and fuel reduction burning while minimizing their adverse effects.

Objective 6.7.7: Construction Related, Short-Term Emissions. Reduce construction related, short-term emissions by adopting regulations which minimize their adverse effects.

Policy 6.7.7.1: The County shall consider air quality when planning the land uses and transportation systems to accommodate expected growth, and shall use the recommendations in the most recent version of the El Dorado County Air Quality Management (AQMD) Guide to Air Quality Assessment: Determining Significance of Air Quality Impacts Under the California Environmental Quality Act, to analyze potential air quality impacts (e.g., short-term construction, long-term operations, toxic and odor-related emissions) and to require feasible mitigation requirements for such impacts. The County shall also consider any new information or technology that becomes available prior to periodic updates of the Guide. The County shall encourage actions (e.g., use of light-colored roofs and retention of trees) to help mitigate heat island effects on air quality.

Policy TC-4i: Within Community Regions and rural Centers, all development shall include pedestrian/bike paths connecting to adjacent development and to schools, parks, commercial areas and other facilities where feasible. In Rural Regions, pedestrian/bike paths shall be considered as appropriate.

8.3 IMPACTS

The proposed project involves adoption of revised General Plan policies and an ORMP, and does not include any specific land development. Thus, the proposed project would not directly result in GHG emissions from construction and operation of new land uses. Rather, the proposed policies and ORMP would influence how impacts from future development projects to oak woodlands are evaluated and mitigated. The loss of oak woodlands that could result from future development projects could cause a one-time emission of GHGs as the carbon contained within the vegetation is returned to the atmosphere, and could reduce the amount of carbon sequestered in oak woodland annually in El Dorado County.

Significance Criteria

The Initial Study prepared for the proposed project (see Appendix A) concluded that the proposed project could result in significant impacts related to GHG emissions and climate change. Therefore, this environmental impact report (EIR) evaluates the potential for the proposed project to:

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

Impact GHG-1

Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

Determination: Significant and Unavoidable

2004 General Plan EIR and TGPA-ZOU EIR Conclusions

The 2004 General Plan EIR did not evaluate greenhouse gases and climate change effects. The TGPA-ZOU EIR analysis of greenhouse gas impacts focused on emissions from vehicle emissions associated with the amount of new dwelling units anticipated to be constructed under buildout of the General Plan. The analysis found that while GHG emissions within the County

would increase, the total new emissions would remain below the thresholds recommended by the El Dorado County Air Quality Management District and thus the impact was determined to be less than significant.

Project Impacts

A development that converts natural vegetation to a developed site results in potential release of sequestered carbon to the atmosphere as CO_2, which would not have been released had there been no change in land cover. While grasslands, chaparral and other vegetation communities each sequester some carbon, forested land cover types sequester much greater volumes of carbon per square foot. The potential for release of sequestered carbon is much less for develop activities outside of oak woodlands and thus this analysis focuses on the carbon sequestration associated with woodlands. To evaluate the effect of oak woodland conversion on the County-wide GHG emissions inventory, this analysis uses available carbon sequestration data for oak woodlands to determine the loss of sequestration associated with the oak woodland impacts that would occur under the 2025 and 2035 General Plan buildout scenarios. The amount of oak woodland impact under these scenarios is presented in Chapter 6, Biological Resources. The analysis of the loss of carbon sequestration uses sequestered carbon content data derived from the Carbon Online Estimator (COLE) (Van Deusen and Heath 2016).

Data from COLE was used as opposed to other sources because it provides more local representations of sequestered carbon in El Dorado County and the immediately surrounding Sierra Nevada foothill region. For example, data available from CARB provides more generalized values for the Sierra Nevada range. Based on United States Forest Service's Forest Inventory and Analysis plot data, COLE calculates carbon stocks (metric tons of carbon per hectare) by forest type for specific geographic areas selected by the user. For this analysis, data from all Forest Inventory and Analysis plots within the County were included and evaluated in the COLE report. As sampling data was too small to generate reasonable carbon estimates for valley oak woodland, a wider analysis area was evaluated, which included all Forest Inventory and Analysis plots within El Dorado, Placer, Nevada, Amador, and Calaveras Counties. Individual forest (woodland) types represented in the COLE report were matched to forest types included in the ORMP Area. In instances where forest types in the ORMP Area did not have a direct match with those included in the COLE report, substitutions or adjustments were made and were based on the woodland type descriptions included in Appendix A of the ORMP.

Total non-soil carbon values (sum of carbon contained in woodland biomass consisting of live trees, standing dead trees, understory vegetation, down dead wood, and forest floor litter) from the COLE report for the represented forest types were then calculated and summed to determine carbon content values (metric tons of carbon per hectare) by forest type. These carbon values were then converted to metric tons (MT) CO_2E per hectare based on the following formula:

$$MT\ CO_2E = carbon\ (metric\ tons) * 3.67$$

The 3.67 value included in the conversion formula represents the weight of carbon dioxide (44) divided by the atomic mass of carbon (12) (44/12 = 3.67). Finally, the MT CO_2E per hectare value was converted to MT CO_2E per acre by dividing by 2.471044 (number of acres per hectare). Table 8-2 summarizes the assignment of carbon stock values from the COLE report to the oak woodlands included in the ORMP Area and the resulting carbon stocks (metric tons of carbon) and MT CO_2E per acre by forest type.

Table 8-2
Carbon Stock Value Assignments for the ORMP Area by Woodland Type

Oak Woodland Type	COLE Forest Type	Adjustments/ Comments	Carbon Stocks (Metric Tons of Carbon per Acre)	Carbon Stocks (MT CO_2E per Acre)
Blue oak woodland	Blue oak	None	37.5	137.7
Blue oak–foothill pine	Oak types (blue oak) and pine types (gray pine)	Average value of oak and pine types	35.4	129.9
Coastal oak woodland*	N/A	N/A	N/A	N/A
Montane hardwood	Oak types (blue oak, canyon live oak, interior live oak) and pine types (gray pine, California mixed conifer)	Weighted value, 75% oak types and 25% pine types	55.7	204.4
Montane hardwood–conifer	Oak types (blue oak, canyon live oak, interior live oak) and pine types (gray pine, California mixed conifer)	Average value of oak and pine types	57.7	211.8
Valley oak woodland	California white oak (valley oak)	None	57.1	209.4

* As noted in the ORMP, coastal oak woodland is likely a misclassification in the Fire and Resource Assessment Program vegetation data set. No impacts to the woodlands classified as coastal oak woodland would occur under the 2025 or 2035 El Dorado County General Plan buildout, so analysis of this type was not conducted.

These calculations assume a one-time loss of sequestered carbon resulting from conversion of existing oak woodlands to developed uses. This analysis also assumes that sequestered carbon from removed vegetation will be returned to the atmosphere; that is, the wood from the removed oak woodlands would not be re-used in another form that would retain carbon (e.g., furniture). This analysis of sequestered carbon impacts does not account for CO_2 emissions estimates associated with vegetation clearing or removal activities, or the transport and disposal of vegetative biomass. GHG emissions generated during project-specific construction activities, including clearing, tree removal and disposal, and grading, would be evaluated at the project level.

The potential sequestered carbon impact was determined based on the identified acreage of oak woodland impact resulting both General Plan buildout scenarios (2025 and 2035) and the carbon content per acre value presented in Table 8-2. The loss of sequestered carbon expressed as MT CO_2E is presented in Table 8-3, by woodland type and General Plan buildout scenario.

Table 8-3
Sequestered Carbon Impacts by Woodland Type and General Plan Buildout Scenario

Oak Woodland Type	Carbon Stocks (MT CO_2E per Acre)	Oak Woodland Impacts under General Plan Buildout (2025)		Oak Woodland Impacts under General Plan Buildout (2035)	
		Acres	*Sequestered Carbon (MT CO_2E)*	*Acres**	*Sequestered Carbon (MT CO_2E)*
Blue oak woodland	137.7	1,642	226,103	2,469	339,981
Blue oak–foothill pine	129.9	1,689	219,401	2,813	365,409
Coastal oak woodland	N/A	0	0	0	0
Montane hardwood	204.4	423	86,461	733	149,825
Montane hardwood–conifer	211.8	8	1,694	26	5,507
Valley oak woodland	209.4	247	51,722	401	83,969
Total		**4,009**	**585,381**	**6,442**	**944,691**

* Includes land cover type conversion that occurred through 2025.

As presented in Table 8-3 and as discussed in Chapter 6, Biological Resources, conversion of 4,009 acres of oak woodland could occur by 2025, with conversion of another 2,433 acres of oak woodland occurring between 2025 and 2035 (total conversion of 6,442 acres of oak woodland by 2035). This could result in a release of up to 257,235 metric tons of carbon (equal to 944,691 MT CO_2E) that is currently sequestered in oak woodlands. This represents an average value of 146.6 MT CO_2E per acre, as calculated from the sequestered carbon content (944,691 MT CO_2E) and the oak woodland acreage (6,442) converted under the 2035 scenario.

Mitigation for oak woodland impacts from the anticipated General Plan buildout would be required, as outlined in the ORMP, with the exception of impacts exempted under the Single-Family Lot Exemption (290 acres of oak woodland) and the Affordable Housing Exemption (196 acres of oak woodland[1]). Therefore, up to 5,956 acres of oak woodlands impacts under the 2035 General Plan buildout scenario would be mitigated. The ORMP requires mitigation in the form of conserving off-site oak woodlands and replanting (up to a maximum of 50% of the required mitigation). As outlined in the ORMP, mitigation ratios for oak woodland impacts may be 1:1, 1.5:1, or 2:1, depending on the extent of on-site impacts. The following summarizes potential mitigation scenarios under the 2035 General Plan buildout scenario:

- Retention of 50% or more of oak woodlands results in a 1:1 mitigation ratio. Under the 2035 buildout scenario, and assuming retention of only 50%, 2,978 acres of oak woodland would be retained within the development area and would represent retention of approximately 436,575 MT CO_2E in retained woodland biomass. In addition,

[1] The oak woodland acreage calculated for the Affordable Housing Exemption is an overestimate of what would be exempt from mitigation, as a portion of that impacted acreage would require mitigation at a reduced ratio. For the purposes of this analysis, a conservative value of 196 acres was used.

approximately 436,575 MT CO_2E could be retained in woodlands conserved as mitigation for project impacts. This scenario would result in total emissions of approximately 507,822 MT CO_2E from release of sequestered carbon to the atmosphere, based on impacts to 3,464 acres (6,442 total acres minus 2,978 retained acres).

- Retention of more than 25% but less than 50% of oak woodlands results in a 1.5:1 mitigation ratio. Under the 2035 buildout scenario, and assuming retention of only 25%, 1,489 acres of oak woodland would be retained and would represent retention of 218,287 MT CO_2E in retained woodland biomass. In addition, up to 982,367 MT CO_2E could be retained in woodlands conserved as mitigation for project impacts. This scenario would result in total emissions of approximately 726,110 MT CO_2E from release of sequestered carbon to the atmosphere, based on impacts to 4,953 acres (6,442 total acres minus 1,489 retained acres).
- Retention of less than 25% of oak woodlands results in a 2:1 mitigation ratio. Under the 2035 buildout scenario, no oak woodland would be retained, conservatively assuming that no projects retain any on-site woodlands. Up to 1,746,299 MT CO_2E could be retained in woodlands conserved as mitigation for project impacts. This scenario would result in total emissions of approximately 944,397 MT CO_2E from release of sequestered carbon to the atmosphere, based on impacts to 6,442 acres.

Averaged over the 19-year buildout timeline, the proposed project would result in between 26,727 and 49,705 MT CO_2E emissions annually from release of sequestered carbon to the atmosphere. This would represent a substantial contribution to the overall GHG inventory for the County. To the extent that tree planting is used to mitigate oak woodland impacts, the amount of existing oak woodland that would be conserved would be reduced. This could reduce the amount of sequestered carbon that is retained in the short-term, but over the lifetime of each planted tree, a greater total amount of new carbon sequestration would occur.

In addition to the estimated oak woodland impacts from buildout of the General Plan with residential, commercial, retail, and industrial uses, there is a potential for an additional 138,704 acres of woodland that could be lost without mitigation under the exemptions in the ORMP. This could contribute an additional 1,070,210 MT CO_2E annually from release of sequestered carbon to the atmosphere. However, 132,281 acres of oak woodlands would be impacted without mitigation as a result of expanded agricultural production activities, which could provide a replacement source of future carbon sequestration, depending on the type of agricultural activities. Additionally, implementation of Mitigation Measure BIO-2 (Require Mitigation for Valley Oak Tree and Valley Oak Woodland Impacts) would reduce the total exempted acreage to 136,468 acres of woodland, resulting in a reduction of annual sequestered carbon releases from 1,070,210 MT CO_2E to 1,052,958 MT CO_2E.

This analysis does not attempt to quantify the lost opportunities for carbon sequestration due to the loss of woodlands on an annual basis. Variables such as stand age, species composition, understory characteristics, and climate influence the annual and total amounts of sequestration. In addition to the release of sequestered carbon into the atmosphere when a development project removes woodlands, there is also less opportunity for carbon sequestration to occur in future years. This increases the overall contribution of GHG emissions and associated climate change effects from a project. Thus, this would increase the severity of the impact compared to the emissions estimates provided above.

Similarly, this analysis does not attempt to quantify the total volume of carbon that may be sequestered in the future within oak woodlands set aside for conservation and new trees planted as mitigation for development impacts under the proposed project. Although conservation would be of existing woodlands that are already sequestering carbon, conservation in perpetuity would be guaranteed so that this source of carbon sequestration is permanently retained. However, the annual and total amounts of sequestration that could occur would vary depending on the specific woodland area to be conserved and other factors, and, therefore, cannot be quantified. This source of sequestration would serve to offset some of the proposed project's impacts. It is also not possible to predict the total number of trees that may be planted as mitigation for development impacts, and thus not feasible to estimate the total new carbon sequestration that would be associated with such mitigation efforts.

Further, this analysis does not consider potential sequestration and reductions in energy consumption from landscaping that would be installed by future development projects. Although the Scoping Plan Update recognizes that urban forests provide substantial benefits in these areas, at this programmatic level of analysis, it would be speculative to attempt to quantify the effects of presently unknown landscaping plans. Landscaping would serve to offset some of the proposed project's impacts. Although these potential offsets cannot be quantified, they are not expected to provide a substantial reduction in project impacts.

The El Dorado Air Quality Management District, in cooperation with the Sacramento Metropolitan Air Quality Management District and other air districts in the region, have adopted guidance recommending that the following emissions levels be used by local agencies as thresholds of significance when evaluating GHG impacts (SMAQMD 2014):

- 10,000 MT CO_2E annually for stationary source projects (such as new industrial operations)
- 1,100 MT CO_2E annually for land development projects (in consideration of both construction and operational emissions)

The estimated annual MT CO_2E emissions resulting from General Plan implementation under the proposed Biological Resource Policy Update and ORMP would exceed the stationary source

emissions threshold by between 16,727 and 39,705 MT CO_2E annually, and would exceed the development projects emissions threshold by between 25,627 and 48,605 MT CO_2E annually. Therefore, the proposed project would have a significant impact related to GHG emissions and climate change.

Potential mitigation for this impact could include requiring a minimum level of oak woodland retention on every parcel. That option is evaluated as Alternative 2 in Chapter 10, Alternatives, of this EIR. Another mitigation option would be to modify General Plan policies and the Zoning Ordinance to reduce allowable development intensities (and thus allow for greater on-site retention of vegetation). However, this mitigation would not be feasible, as it would be incompatible with the General Plan's goals for arranging land uses by intensity, with higher-intensity, more urban and suburban uses in the Community Regions of El Dorado Hills and Cameron Park, which allows for the more rural communities to support lower-intensity land uses and retain their rural character. Specifically, this mitigation would conflict with General Plan policies that encourage clustering of development and concentration of high-intensity uses in Community Regions and Rural Centers to preserve the remaining Rural Regions as open space and natural resource areas (including agriculture and timber). Further this mitigation could increase GHG emissions by increasing development pressure in rural areas, which could lead to increases in vehicle miles traveled, as residents of those areas would need to travel farther to work and shop compared to residents of the County's Community Regions. A third mitigation option would be to increase development densities in the Community Regions to reduce the overall footprint of development in the County, which would allow for greater retention of natural vegetation County-wide. This mitigation is also considered infeasible, as it would result in adverse effects related to community character and visual resources in the Community Regions.

Impact GHG-2

Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

Determination: No Impact

2004 General Plan EIR and TGPA-ZOU EIR Conclusions

The 2004 General Plan EIR (County of El Dorado 2004) did not evaluate greenhouse gases and climate change effects. A summary of impact conclusions reached in the final El Dorado County Targeted General Plan Amendment and Zoning Ordinance Update (TGPA-ZOU) Program EIR (County of El Dorado 2015b) is presented under Impact GHG-1.

Project Impacts

As discussed previously, the Scoping Plan Update (CARB 2014) identifies several strategies for reducing GHG emissions associated with "natural and working lands," which include managed forests, natural forestland, agricultural lands, grasslands, wetlands, and other types of vegetation communities. Specifically, the Scoping Plan Update recommends that local land use planning efforts "more fully integrate and emphasize land conservation and avoid conversion of croplands, forests, rangelands, and wetlands, as well as [emphasize] expansion and promotion of urban forestry, urban agriculture, and green infrastructure" (CARB 2014). The proposed Biological Resource Policy Update and ORMP meet this recommendation by establishing a program to manage and mitigate impacts to biological resources, including through conservation. The program includes a focus on habitat connectivity and provisions to ensure the long-term viability of agricultural production and activities within the County. Thus, the proposed project is consistent with statewide and regional planning, policies, and regulations related to GHG emissions and climate change, including the AB 32 Scoping Plan. The proposed project would have no impact related to conflicts with such plans, policies, and regulations.

8.4 MITIGATION MEASURES

The proposed project would result in a significant and unavoidable impact related to GHG emissions. There is no feasible mitigation that would substantially reduce or avoid this impact.

The proposed project would result in no impacts related to conflicts with plans, policies, and regulations related to GHG emissions and climate change, and, therefore, no mitigation is required for this impact.

CHAPTER 9
VISUAL RESOURCES

This section addresses the potential aesthetic impacts associated with the General Plan Biological Resources Policy Update and Oak Resources Management Plan (proposed project). In particular, it addresses the potential for the proposed project to result in development that would degrade the quality of scenic vistas and scenic resources, and/or degrade the existing visual character or quality of the area or region. The proposed project would establish new procedures and requirements for new land development projects and the County of El Dorado's (County) assessment of and mitigation for impacts to biological resources. Amendments to several County of El Dorado General Plan objectives, policies, and implementation measures to address the County's need for a clear, defensible, feasible, and reasonable approach to managing biological resource impacts, including impacts to oak trees and oak woodland resources, would be implemented with the proposed project. The proposed project would also include adopting an Oak Resources Management Plan (ORMP) and implementing an ordinance that would update and replace the Oak Woodlands Management Plan adopted by the County in May 2008.

Comments regarding visual resources received in response to the Notice of Preparation include concerns related mainly to aesthetic impacts resulting from insufficient mandatory oak resource retention standards within the draft policies and ORMP. The Notice of Preparation, Initial Study, and comments received are included in Appendix A.

Information for this section was primarily obtained from the El Dorado County 2004 General Plan (County of El Dorado 2004a, as amended 2015), the El Dorado County Targeted General Plan Amendment and Zoning Ordinance Update (TGPA-ZOU) Final Program Environmental Impact Report (EIR) (County of El Dorado 2015a), and 2025 and 2035 development footprint projections.

9.1 ENVIRONMENTAL SETTING

The County of El Dorado, located in east-central California, encompasses approximately 1,800 square miles. Folsom Lake is located in the westernmost portion of the County, and the California/Nevada state line forms the eastern boundary. Topographically, the County can be divided into two zones: the northeast corner of the County is located in the Lake Tahoe Basin and the remainder of the County is located in the regional western slope, which is the area west of Echo Summit. The topography of the County varies from 850 feet above mean sea level in the westernmost portion to more than 7,200 feet at some of the higher peaks in the eastern portion of the County, in the Lake Tahoe Basin.

Within the County there are two incorporated cities: the City of Placerville, located in the western portion of the County, and the City of South Lake Tahoe, located in the eastern portion of the County. Nearly half of the land area within the County falls under the jurisdiction of

these governmental entities and is outside of the County's jurisdiction (County of El Dorado 2003). U.S. Highway 50 (Highway 50) bisects the County and is the major east/west transportation corridor to access the Sierra Nevada to the east. State Route 89 is a north/south road passing through El Dorado County from Alpine County at Luther Pass to El Dorado just north of Meeks Bay on the west side of Lake Tahoe. Highway 49 provides a north/south connection in the western portion of the County. Travelers on all of these roads pass through areas that have scenic qualities.

As discussed in Chapter 3, Project Description, the proposed project does not include any land disturbance or development, and the proposed project would not alter land use or zoning designations for any property. However, the proposed project would establish new procedures and requirements for new land development projects, and the County's assessment of and mitigation for impacts to biological resources. The proposed changes to the County's biological resource objectives, policies, and implementation measures contained in the Conservation and Open Space Element of the County's General Plan would take effect County-wide. Areas excluded from the County's General Plan include two incorporated cities, and federal, state, and tribal lands. The ORMP would be applicable to areas within the County at or below 4,000 feet in elevation (the ORMP Area).

The County is composed of rural residential and agricultural land uses outside of the incorporated cities, higher-density urban and suburban development along the Highway 50 corridor and within the cities of Placerville and South Lake Tahoe, and large areas of National Forest in the eastern portion of the County. Agricultural uses in the County include vineyards, cattle ranching, and orchards. Suburban development in the communities of El Dorado Hills and Cameron Park is located along the Highway 50 corridor west of Placerville, and additional suburban development is located in small commercial areas in Shingle Springs and Diamond Springs. Rural communities in the unincorporated areas, including Georgetown, Rescue, Coloma, and Grizzly Flats, have maintained their separate identities and are generally surrounded by areas of lower-intensity rural land uses. Much of the County between the Tahoe Basin and the communities of Georgetown, Pollock Pines, and Grizzly Flats is within National Forest and under the jurisdiction of the U.S. Forest Service.

Visual Resources

Visual resources include both scenic resources and scenic vistas or views. Scenic resources are specific elements within a viewshed such as trees, rock outcroppings, and historical buildings. These elements usually serve as a focal point for foreground views. A scenic vista is generally defined as an expansive view of a highly valued landscape observable from a publicly accessible vantage point. These are usually formed by middle-ground and/or background elements such as mountain ranges, valleys, and ridgelines.

Visual Character

The visual character of an area is defined by the unique combination of physical elements within a given view. These factors include the following:

- *Landform* – The shape or mass of the land, often defined by edge and outline.
- *Vegetation* – Distinct plant communities (e.g., grassland, scrub, riparian) that differ from one another in appearance.
- *Human-made Structures* – Any element that is visually distinguishable from the natural environment by virtue of color, texture, shape, or scale. Human-made structures can serve to define almost any physical or perceptual character area.
- *Water* – The appearance of water in its many forms, such as clear, calm, flowing, and rolling.
- *Color* – The appearance of light that enables the viewer to differentiate otherwise identical objects through differences in chroma, value, or hue.
- *Diversity* – Variety in landscape character; a function of the number of various elements and the intermixing of these elements.

Visual Quality

The perceived quality of a view can be influenced by the following visual quality factors and by the individual viewer's opinions and attitudes toward the various scenic resources included in the viewshed.

- *Vividness* – The memorability of landscape components as they combine in striking and distinctive visual patterns.
- *Intactness* – How well a visual scene appears to match its original/natural or human-made composition without major changes or disturbances. Intact visual scenes are more easily impacted by a project than those that are not.
- *Unity* – A proportionate arrangement of form, line, color, and texture; a blend of harmonious elements with those that vary.
- *Visual Organization* – The way individual elements are composed and fit with other elements to make an organized composition. Chaotic arrangements of elements that do not relate to each other are considered to have poor visual organization.
- *Scarcity* – The limited occurrence of a view within a region.
- *Adjacent Scenery* – An area at the edge of a person's "cone" of vision that affects his/her perception of the area viewed.

- *Cultural Modifications* – Human-made alterations that either add or detract from the character of a natural area.

Scenic Viewpoints in El Dorado County

A list of the County's key scenic views and resources is presented in Table 9-1. This list is similar to that used in the visual impact analysis prepared for the TGPA-ZOU EIR and the 2004 General Plan EIR. The viewpoints are general locations where the public can access scenic views and resources. Many of the viewpoints are areas along highways where viewers can see large water bodies (e.g., Lake Tahoe and Folsom Reservoir), river canyons, rolling hills, or forests. Other viewpoints are the locations of historical structures or districts that are reminiscent of El Dorado County's heritage. Table 9-1 indicates where the scenic viewpoints are located and the scenic views and resources that can be seen from those viewpoints.

Rivers are important visual resources that draw tourists to the area for recreational opportunities. The American, Cosumnes, Rubicon, and Upper Truckee Rivers run through El Dorado County. Scenic views and corridors that include river views may be accessible by roads for public access for recreation such as rafting and kayaking on the Middle Fork of the American River and whitewater boating on the South Fork of the American River.

Table 9-1 does not provide an exhaustive list of scenic views and resources. However, it identifies representative scenic views and resources within the County that could potentially be affected by the 2025 and 2035 development buildout scenarios.

Table 9-1
Key Public Scenic Viewpoints in El Dorado County

Viewpoint	Location	Predominant Direction of View	Scenic View (V) or Resource (R)
Highways			
U.S. Highway 50, westbound	East of Bass Lake Road	South	Marble Valley (V)
	Between the South Shingle Road / Ponderosa Road interchange and Greenstone Road	East	Crystal Range (V)
	East of Placerville, various locations	East, north, and south	Sierra Nevada peaks (V), American River canyon (V, R), Sacramento Valley (V)
	Echo Summit	East	Lake Tahoe (V), Christmas Valley (V, R)
U.S. Highway 50, eastbound	Between Echo Summit and Placerville	West, north, and south	Horsetail Falls and Lovers Leap (R), lower Sierra Nevada ridgelines (V), American River canyon (V, R), Sacramento Valley (V)
	Camino Heights	West	Sacramento Valley (V)
	Bass Lake Grade	West	Sacramento Valley (V)

Table 9-1
Key Public Scenic Viewpoints in El Dorado County

Viewpoint	Location	Predominant Direction of View	Scenic View (V) or Resource (R)
State Route (SR) 49, northbound	Coloma	All	Historic townsite of Coloma (R)
	Marshall Grade Road to Cool	East and West	Coloma Valley (V), American River (V, R), ridgelines (V), rolling hills (V)
	North of Cool Quarry	North	Middle fork of American River canyon (V, R)
SR-49, southbound	Pilot Hill Road to Coloma	East and west	Coloma Valley (V), American River (V, R), Mount Murphy (V, R), rolling hills (V)
	Coloma	All	Historic townsite of Coloma (R)
	South of Crystal Boulevard	East and south	Cosumnes River canyon (V), ridgelines (V)
SR-89, northbound	Emerald Bay to Sugar Pine Point	East	Lake Tahoe (R)
SR-89, southbound	Sugar Pine Point to Emerald Bay	East	Lake Tahoe (R)
SR-193, northbound (from Placerville to Georgetown)	Intersection with SR-49 to Kelsey	North, east, and west	American River canyon (V, R), ridgelines (V)
SR-193, southbound (from Placerville to Georgetown)	Kelsey to intersection with SR-49	South, east, and west	American River canyon (V, R), ridgelines (V)
SR-88, westbound	Kirkwood to Omo Ranch Road	North, west, and south	Lower Sierra Nevada ridgelines (V)
SR-88, eastbound	Omo Ranch Road to Kirkwood	North, west, and south	Sierra Nevada peaks (V), lower Sierra Nevada ridgelines (V)
Other Major Roadways			
Mormon Immigrant Trail	Intersection with SR-88 to approximately 10 miles west	North	Sierra Nevada peaks (V), south fork of the American River canyon (V, R), lower Sierra Nevada ridgelines (V)
Mount Aukum Road	Crossing of the north and middle forks of the Cosumnes River, road section north of the south fork of the Cosumnes River	All	Cosumnes River canyons (V, R)
Omo Ranch Road	Between Omo Ranch and SR-88	Various	Ridgelines (V), canyons (V, R)
Icehouse Road	Peavine Road to Highway 50	South	American River canyon (V, R)
Salmon Falls Road, southbound	South of SR-49 to Folsom Reservoir	South and west	American River canyon (V, R), Folsom Reservoir (V, R)
Latrobe Road	From White Rock Road to County line	All	Rolling hills (V), vistas of Sacramento Valley (V)
Wentworth Springs Road	East of Georgetown	All	Intermittent forest and ridge views (V), views of water bodies (Rubicon River, Stumpy Meadows Reservoir) (V)
Cold Springs Road	Gold Hill area	All	Rolling hills (V), ridgelines (V)

Source: County of El Dorado 2003

9.2 REGULATORY SETTING

The potential for General Plan implementation to result in adverse impacts to visual resources can be limited by regulatory requirements that may direct the form of future projects. The following section discusses the regulations applicable to future projects within the County's General Plan planning area and the ORMP Area. Large portions of the County are under the jurisdiction of other agencies (e.g., U.S. Forest Service, U.S. Bureau of Reclamation, State of California, City of Placerville), and the regulations of those agencies would not be applicable to development projects outside of those agency's jurisdiction.

Federal Regulations

There are no federal regulations applicable to the proposed project.

State Regulations

The California Department of Transportation administers the state's Scenic Highway Program to preserve and protect scenic highway corridors from change that would diminish the aesthetic value of adjacent lands (California Streets and Highways Code, Section 260 et seq.). The state's Scenic Highway Program includes a list of highways that are either designated as scenic highways or are eligible for designation. These highways are identified in the California Streets and Highways Code, Section 263. Within El Dorado County, the following two highway segments are officially designated as Scenic Highways:

- Highway 50 from the County Government Center interchange near Placerville to the South Lake Tahoe City limit.
- State Route 89 from the Alpine County line to the Placer County line.

A Scenic Highway designation does not preclude or otherwise directly regulate development along the highway. Rather, the Scenic Highway Program entails the regulation of land use and density of development through adoption of a local Corridor Protection Program; attention to the design of sites and structures; attention to and control of signage, landscaping, and grading; and other restrictions. The local jurisdiction is responsible for adopting and implementing such regulations. If a highway is listed as eligible for official designation, it is also part of the Scenic Highway Program, and care must be taken to preserve its eligibility status (Caltrans 2012).

Appendix G of the State CEQA Guidelines suggests that substantial damage to scenic resources along a designated Scenic Highway may result in a significant environmental impact.

Local Regulations

El Dorado County 2004 General Plan

The 2004 General Plan provides a framework for the County to achieve the identified General Plan vision, which is to "Maintain and protect the County's natural beauty and environmental quality, vegetation, air and water quality, natural landscape features, cultural resource values, and maintain the rural character and lifestyle while ensuring the economic viability critical to promoting and sustaining community identity" (County of El Dorado 2004a: p.3).

In support of this vision, the General Plan Land Use Element establishes several goals for the protection of visual resources, with corresponding objectives and policies, under the topic of "Visual Resources and Community Design." Those potentially applicable to the proposed Biological Resources Policy Update and ORMP include the following (County of El Dorado 2015b):

Objective 2.3.1: Topography and Native Vegetation. Provide for the retention of distinct topographical features and conservation of the native vegetation of the County.

Policy 2.3.1.1: The County shall continue to enforce the tree protection provisions in the Grading Erosion and Sediment Control Ordinance and utilize the hillside road standards.

Objective 2.3.2: Hillsides and Ridge Lines. Maintain the visual integrity of hillsides and ridge lines.

Policy 2.3.2.1: Disturbance of slopes thirty (30) percent or greater shall be discouraged to minimize the visual impacts of grading and vegetation removal.

Objective 2.4.1: Community Identity. Identification, maintenance, and enhancement of the unique identity of each existing community.

Policy 2.4.1.1: Design control combining zone districts shall be expanded for commercial and multiple family zoning districts to include identified Communities, Rural Centers, historic districts, and scenic corridors.

Policy 2.4.1.2: The County shall develop community design guidelines in concert with members of each community which will detail specific qualities and features unique to the community as Planning staff and funds are available. Each plan shall contain design guidelines to be used in project site review of all discretionary project permits. Such plans may be developed for Rural Centers to the extent possible. The guidelines shall include, but not be limited to, the following criteria:

A. Historic preservation

B. Streetscape elements and improvements

C. Signage

D. Maintenance of existing scenic road and riparian corridors

E. Compatible architectural design

F. Designs for landmark land uses

G. Outdoor art

Objective 2.5.1: Physical and Visual Separation. Provision for the visual and physical separation of communities from new development.

Policy 2.5.1.1: Low intensity land uses shall be incorporated into new development projects to provide for the physical and visual separation of communities. Low intensity land uses may include any one or a combination of the following: parks and natural open space areas, special setbacks, parkways, landscaped roadway buffers, natural landscape features, and transitional development densities.

Policy 2.5.1.2: Greenbelts or other means of community separation shall be included within a specific plan and may include any of the following: preserved open space, parks, agricultural districts, wildlife habitat, rare plant preserves, riparian corridors, and designated Natural Resource areas.

Objective 2.6.1: Scenic Corridor Identification. Identification of scenic and historical roads and corridors.

Policy 2.6.1.1: A Scenic Corridor Ordinance shall be prepared and adopted for the purpose of establishing standards for the protection of identified scenic local roads and State highways. The ordinance shall incorporate standards that address at a minimum the following:

A. Mapped inventory of sensitive views and viewsheds within the entire County;

B. Criteria for designation of scenic corridors;

C. State Scenic Highway criteria;

D. Limitations on incompatible land uses;

E. Design guidelines for project site review, with the exception of single family residential and agricultural uses;

F. Identification of foreground and background;

G. Long distance viewsheds within the built environment;

H. Placement of public utility distribution and transmission facilities and wireless communication structures;

I. A program for visual resource management for various landscape types, including guidelines for and restrictions on ridgeline development;

J. Residential setbacks established at the 60 dBA CNEL noise contour line along State highways, the local County scenic roads, and along the roads within the Gold Rush Parkway and Action Program;

K. Restrict sound walls within the foreground area of a scenic corridor; and

L. Grading and earthmoving standards for the foreground area.

Policy 2.6.1.2: Until such time as the Scenic Corridor Ordinance is adopted, the County shall review all projects within designated State Scenic Highway corridors for compliance with State criteria.

Policy 2.6.1.3: Discretionary projects reviewed prior to the adoption of the Scenic Corridor Ordinance, that would be visible from any of the important public scenic viewpoints identified in Table 5.3-1 and Exhibit 5.3-1 of the El Dorado County General Plan Draft Environmental Impact Report, shall be subject to design review, and Policies 2.6.1.4, 2.6.1.5, and 2.6.1.6 shall be applicable to such projects until scenic corridors have been established.

The Transportation and Circulation Element includes the following policy to minimize visual impacts of new streets and improvements to existing roads (County of El Dorado 2015c):

Policy TC-1w: New streets and improvements to existing rural roads necessitated by new development shall be designed to minimize visual impacts, preserve rural character, and ensure neighborhood quality to the extent possible consistent with the needs of emergency access, on street parking, and vehicular and pedestrian safety.

El Dorado County Zoning Ordinance

The County's Zoning Ordinance regulates the actual use of land. Residential, commercial, agricultural, industrial, and other zones describe the allowable uses and minimum development standards that apply to a given piece of land. The Subdivision Ordinance establishes the procedure by which private land may be divided for sale.

Through the TGPA-ZOU process, the County recently adopted a comprehensive update to the Zoning Ordinance in December 2015 to ensure that the Zoning Ordinance is consistent with the General Plan, as required by California Planning and Development Law.

El Dorado County Community and Specific Plans

There are several unincorporated communities in the County. To provide greater land use policy detail than would be possible under the General Plan, the County has adopted "community plans" and "specific plans" for these areas. The following adopted community/specific plans establish the types, intensities, and distribution of land uses within their respective communities:

- Meyers Community Plan
- Carson Creek Specific Plan
- Promontory Specific Plan
- Valley View Specific Plan
- El Dorado Hills Specific Plan
- Bass Lake Hills Specific Plan
- North West El Dorado Hills Specific Plan

El Dorado County Design Review and Design Guidelines

The County has adopted community design standards to augment those found in the Zoning Ordinance, including the following: Community Design Guide, Missouri Flat Design Guidelines, Historic Design Guide, Sierra Design Guide, Landscaping and Irrigation Standards, Outdoor Lighting Standards, Parking and Loading Standards, the Design and Improvement Standards Manual, and Mixed-Use Design Guidelines. These documents identify design elements and minimum requirements for projects with the intent of ensuring that development within the County contributes to the overall community character. For example, the Community Design Guidelines recommend that "natural topography and trees should be retained when possible," and that "natural features and views should be maintained and protected through use of adequate open space" (County of El Dorado 2009). The County requires that projects be subject to a Design Review process when the property is located in a Design Review District.

9.3 IMPACTS

The project is proposing adoption of the ORMP and a limited number of policy revisions to the biological resource objectives, policies, and implementation measures contained in the Conservation and Open Space Element of the 2004 General Plan. The proposed project would not change general plan land use designations or zoning designations. Instead, it would define

the County's biological resource management and mitigation strategy. The proposed policies would establish requirements for identification of biological resources and analysis of impacts to those resources from future development within the County and identify standards for mitigation of such impacts. Each of the following impact discussions discloses the extent to which the current General Plan, through its policies and pattern of land use distribution, has or is expected to have an impact on visual resources. The potential impacts of the proposed project on existing visual resources are then analyzed. All impacts are evaluated under the existing General Plan and Zoning Ordinance, as modified by the El Dorado County TGPA-ZOU.

As discussed in the 2004 General Plan EIR, the U.S. Forest Service and Federal Highway Administration have well-established methods for evaluating and assessing project-related effects on visual resources. These methods are typically applied to specific development projects, and are not directly applicable to the programmatic analysis presented in this EIR. However, this analysis reflects consideration of the major components of the U.S. Forest Service's and Federal Highway Administration's methodologies to the extent feasible, including assessing visual character and quality and the identified scenic resources in the County based on three criteria (County of El Dorado 2004b):

- Vividness – the visual power or memorability of landscape components as they combine in striking or distinctive visual patterns.
- Intactness – the visual integrity of the natural and human-built landscape and its freedom from encroaching elements; this factor can be present in well-kept urban and rural landscapes, as well as natural settings.
- Unity – the visual coherence and compositional harmony of the landscape considered as a whole; it frequently attests to the careful design of individual components in the artificial landscape.

The determination of when changes to the visual environment become a substantial adverse effect is based on the existing scenic quality of an area, the level of viewer exposure and concern regarding visual change, and the level of actual visual change caused by a project as seen by a given viewer group. The overall visual sensitivity of each location is first established based on existing visual quality, viewer exposure, and viewer concern. Generally, visual sensitivity increases with an increase in total number of viewers, the frequency of viewing (e.g., daily or seasonally), and the duration of views (i.e., how long a scene is viewed). These factors are then considered together with the level of expected visual change or contrast and significance. Visual change is an overall measure of the alteration or change in basic visual attributes such as form, line, color, and texture as a result of a project (County of El Dorado 2004b).

Significance Criteria

The Initial Study prepared for the proposed project (see Appendix A) concluded that the project would have no impact related to the following condition:

- Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area.

Therefore, this EIR evaluates the potential for the proposed project to:

- Result in a substantial adverse effect on a scenic vista.
- Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings along a scenic highway.
- Substantially degrade the existing visual character or quality of the site and its surroundings.

Impact VIS-1

Result in the degradation of the quality of scenic vistas and scenic resources

Determination: Less than Significant

2004 General Plan EIR and TGPA-ZOU EIR Conclusions

The 2004 General Plan EIR found that the additional residential and nonresidential development allowed under the 2004 General Plan had the potential to degrade the quality of scenic vistas and resources within the County. With implementation of Mitigation Measures 5.3-1(a) through 5.3-1(c) included in the General Plan EIR, it was concluded that the adopted General Plan would have a less-than-significant impact on scenic views or scenic vistas. Mitigation Measure 5.3-1(a) required the establishment of a conformity review process for permits. It was incorporated into the General Plan as Policy 2.2.5.2 and Policy 2.2.5.20. Mitigation Measure 5.3-1(b) called for nominating SR-49 for Scenic Highway designation and is reflected in General Plan Policy 2.6.1.8 and Policy 2.6.1.3. Mitigation Measure 5.3-1(c) called for adopting a policy to protect views in scenic corridors from degradation, and is incorporated into the General Plan as Policy 2.6.1.5 (County of El Dorado 2004b). The proposed project would not alter any of these policies.

The TGPA-ZOU EIR concluded that it was reasonably foreseeable that the development anticipated under the General Plan, as amended, could result in adverse effects on scenic vistas. Specifically, through the TGPA-ZOU process, the County modified the Hillside Development Standards to allow some development on slopes of 30% or greater, and the TGPA-ZOU EIR concluded that allowing hillside development in rural areas would adversely affect the vividness

and intactness of scenic views, and, therefore, would result in a significant and unavoidable impact (County of El Dorado 2015a).

The TGPA-ZOU also assessed impacts to scenic vistas resulting from the TGPA-ZOU project's proposed provisions for Ranch Marketing, Agricultural and Timber Resource Lodging, Ski Area, and Industrial General land uses. The EIR concluded that such provisions could result in new development that adversely affects the vividness, intactness, and unity of rural views. Despite requirements for compatibility and design review, it was determined that the proposed activities could adversely affect scenic views and resources. Even with implementation of mitigation measures, the EIR concluded that the TGPA-ZOU's overall impact to scenic vistas would be significant and unavoidable (County of El Dorado 2015a).

Project Impacts

The proposed project would not alter the land use or zoning designations for any property, and no specific development is proposed. Rather, the proposed project would modify the County's existing policies and procedures for evaluating and mitigating the impacts of future development to biological resources. This analysis considers the potential for the proposed project to result in development that would degrade existing scenic resources within the County. Specifically, this analysis considers potential impacts to the discrete scenic views and resources identified in Table 9-1, and potential impacts to general scenic views such as views that are typical within rural areas of the County. The impact on general community character within the County is evaluated in Impact LU-2 in Chapter 5, Land Use.

Continued buildout of the General Plan land uses under the proposed Biological Resource Policy Update and ORMP could impact scenic vistas and/or resources in individual communities and the County as a whole.

Impacts Related to Loss of Oak Woodland

As discussed in Chapter 5, Land Use, and shown in Figure 5-1, impacts to oak woodlands from future development are expected to occur on properties generally within the Highway 50 corridor and west of the City of Placerville. In particular, several properties that currently support oak woodland habitats within the Community Regions of El Dorado Hills, Cameron Park, and Shingle Springs are projected to be developed under both the 2025 and 2035 scenarios. A few properties east of Placerville that currently support oak woodlands are also expected to be developed, including properties in the rural center of Camino and properties south of Placerville. It is expected that development through 2025 would result in conversion of a maximum of 4,071 acres of oak woodland to developed land uses. Development through 2035 would result in conversion of an additional 2,433 acres of oak woodland to developed land uses. The conversion of oak woodland to developed uses would affect scenic resources and scenic vistas in a given

community by decreasing the prevalence of natural habitat and resources, and increasing the presence of built environment and ornamental landscaping elements.

To assess the loss of oak woodlands and its potential to degrade the quality of scenic vistas and resources, each of the County-identified scenic resources and viewpoints listed in Table 9-1 were located in relation to areas that currently support oak woodlands anticipated for development under the 2025 and 2035 scenarios (see Figure 5-1 in Chapter 5, Land Use). Comparing the identified resources and viewpoints to the oak woodland areas anticipated for future development, it was determined that one viewpoint listed in Table 9-1, the scenic view of Marble Valley from Highway 50 westbound, could be impacted by the loss of oak woodlands associated with development through 2035. All other listed scenic vistas and visual resources in Table 9-1 would not be expected to be affected by development under either the 2025 or 2035 buildout scenarios due to their not being located in an oak woodland area anticipated for development, within a scenic viewshed, or adjacent to an identified visual resource.

In determining the level of significance of visual impacts related to loss of oak woodlands within the Marble Valley scenic view, it was necessary to consider factors such as the level of viewer exposure and level of expected visual change that would be seen by a given viewer group. The scenic view of Marble Valley that could potentially be affected by the loss of oak woodlands associated with future development would be from westbound Highway 50. Although the conversion of oak woodland to developed uses in this area could result in a change to the scenic view, the change would not be expected to be substantial considering the level of viewer exposure and expected visual change. Because this scenic view is experienced by motorists traveling at high rates of speed along westbound Highway 50, the duration of the view is very limited. Although the rate of oak woodland loss is unknown, future development project(s) in the Marble Valley area are expected to occur over the next 20 years, as indicated in the 2025 and 2035 development projections. Due to the incremental nature of oak woodland loss and the requirement that development projects incorporate mitigation for loss of oak woodland, visual change is not expected to be substantial. Based on these considerations, visual impacts related to the loss of oak woodland in the Marble Valley scenic view are expected to be less than significant.

Impacts Related to Loss of Other Vegetation Communities

Figure 5-2 in Chapter 5, Land Use, shows the existing development footprint within all vegetation communities in the County, and Figure 5-3 in Chapter 5 shows anticipated impacts to all vegetation communities under the 2025 and 2035 development scenarios. As shown in Figure 5-3, several properties that currently support natural vegetation communities within the Community Regions of El Dorado Hills, Cameron Park, and Shingle Springs are projected to be developed under both the 2025 and 2035 scenarios. The natural communities that would possibly

be affected are hardwood forest, hardwood woodland, conifer woodland, herbaceous, and shrub; additionally, approximately seven locations projected to be developed contain wetlands. A few properties east of Placerville that currently support herbaceous and hardwood forest communities are also expected to be developed, including properties in the community of Camino and properties south of Placerville. As with the loss of oak woodlands, the conversion of natural vegetative communities to developed uses would impact scenic resources and scenic vistas in a given community by decreasing the prevalence of natural habitat and resources, and increasing the presence of built-environment and ornamental landscaping elements.

As with the assessment of visual impacts related to the loss oak woodlands, each of the County-identified scenic resources and viewpoints listed in Table 9-1 were located in relation to areas that currently support vegetation communities anticipated for development under the 2025 and 2035 scenarios (see Figure 5-2 in Chapter 5). Consistent with the loss of oak woodland discussed above, one viewpoint listed in Table 9-1, the scenic view of Marble Valley from westbound Highway 50, was determined to potentially be impacted by buildout through 2035. Vegetation communities within this viewshed are hardwood woodland and herbaceous. It is not expected that loss of herbaceous communities would be visible from Highway 50, and the loss of hardwood woodlands are evaluated under loss of oak woodlands, above. Impacts to visual resources related to the loss of hardwood woodland in the Marble Valley scenic view are expected to be less than significant.

Impact VIS-2

Substantially degrade the existing visual character or quality of the area or region

Determination: Significant and Unavoidable

Visual character varies throughout the County, with higher-density urban and suburban development occurring along the Highway 50 corridor and in Community Regions, and other areas supporting rural residential uses, agricultural activities, and large areas of open space. The vegetation communities, including oak trees and oak woodlands, within the open space and rural areas of the County, are a key element of the County's overall character. The General Plan identifies a primary goal of the County as the "Protection and conservation of existing communities and rural centers; creation of new sustainable communities; curtailment of urban/suburban sprawl; location and intensity of future development consistent with the availability of adequate infrastructure; and mixed and balanced uses that promote use of alternate transportation systems" (County of El Dorado 2015b: Goal 2.1).

2004 General Plan EIR and TGPA-ZOU EIR Conclusions

The 2004 General Plan EIR (County of El Dorado 2004b) analyzed Impact 5.3-2, Degradation of Existing Visual Character or Quality of the Area or Region, and noted that the proposed development pattern:

> "…would result in more clustered, as opposed to dispersed, development patterns. Based on the anticipated absolute level of residential development (32,290 new dwelling units), the overall visual character is not expected to change substantially because the availability of clustered development in and near Community Regions and Rural Centers would provide a disincentive for large amounts of dispersed residential development in Rural Regions. The visual character of some specific areas of the county can be expected to change, however. This alternative [meaning the adopted General Plan] includes relatively high-density land use designations in the Community Regions and Rural Centers. New subdivisions in areas that are currently relatively undeveloped can be expected to change the rural character to one that is more suburban in nature."

It concluded that:

> "…[w]hile design policies would largely address this issue, areas of the county will undergo substantial alterations in visual character from rural to a more suburban appearance. Roadway design modification would address a component of this impact but there is no mitigation to fully reduce it. Therefore, this impact would be significant and unavoidable."

The 2004 General Plan EIR included Mitigation Measure 5.3-2 (Design New Streets and Improvements to Minimize Effects on Rural Character to the Extent Possible), which was incorporated into the adopted General Plan as Policy TC-1w.

As discussed under Impact AES-1, the TGPA-ZOU EIR concluded that it would be reasonably foreseeable that several classes of uses that may be allowed under the ZOU would have the potential to adversely affect existing views. The EIR found this to also be true for the existing visual character of the sites on which those uses could be approved. The TGPA-ZOU concluded that this impact would be significant and unavoidable (County of El Dorado 2015a).

Project Impacts

The proposed project would not alter the land use or zoning designations of any property, and would not make any changes to the General Plan policies that encourage most new development to be located in the Community Regions and Rural Centers. It also would not alter the allowable

land uses or density and/or intensity of land use development projects. Thus, the proposed project would not alter land use development locations or types of land uses throughout the County. However, the proposed project would modify the requirements for evaluation and mitigation of impacts to biological resources. Continued buildout of the General Plan land uses under the proposed Biological Resources Policy Update and ORMP could alter the character of individual communities and the County as a whole.

Figure 5-1 in Chapter 5, Land Use, shows the areas that currently support oak woodlands that are anticipated for development under the 2025 and 2035 scenarios; Figure 5-3 shows all anticipated impacts to vegetation communities under the 2025 and 2035 scenarios.

Because the visual character of the County is comparable to that of community character at the general plan level, the following impact discussion provides a summary of the conclusions reached in Chapter 5, Land Use, for Impact LU-2 and the assessment of impacts to the existing community character. Refer to Impact LU-2 in Chapter 5 for a complete evaluation.

As discussed in Impact LU-2, it is expected that development through 2025 would result in conversion of a maximum of 4,071 acres of oak woodland to developed land uses and development through 2035 would result in conversion of an additional 2,433 acres of oak woodland to developed land uses. Most impacts to oak woodlands from future development are expected to occur on properties generally within the Highway 50 corridor and west of the City of Placerville (see Figure 5-1). In terms of conversion, natural vegetation communities that would possibly be affected by buildout through 2035 are hardwood forest, conifer woodland, herbaceous, and shrub; additionally, seven locations projected to be developed contain wetlands (see Figure 5-3).

The conversion of oak woodlands and natural communities to developed uses would alter land use character in a given community by decreasing the prevalence of natural habitat and resources and increasing the presence of built-environment and ornamental landscaping elements. In general, these effects would be experienced at the individual community level; however, to the extent that conversion of vegetation communities to developed land uses occurs within the viewshed of Highway 50, the effects within individual communities could be combined to result in a cumulative degradation of land use character for the County overall.

Impact LU-2 concluded that the impacts of the proposed project related to loss of oak woodlands and vegetation communities would be potentially significant. Impact LU-2 further concluded that mitigation options related to requiring design review for every new development and requiring reduction on land use densities are infeasible, and that the impacts of the proposed project on community character would be significant at the local level and less than significant relative to County-wide community character. The same conclusions apply to visual character. Thus, the

impacts of the proposed project on visual character would be significant at the local level and less than significant relative to County-wide community character.

9.4 MITIGATION MEASURES

The proposed project would result in less-than-significant impacts related to the degradation of the quality of scenic vistas and scenic resources; therefore, no mitigation is required for those impacts.

The proposed project would result in a significant and unavoidable impact related to degradation of existing visual character or quality of the area or region. There is no feasible mitigation that would substantially reduce or avoid this impact.

CHAPTER 10
ALTERNATIVES

10.1 INTRODUCTION

Pursuant to the California Environmental Quality Act (CEQA) Guidelines, environmental impact reports (EIRs) are required to "describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives" (14 CCR 15126.6(a)). This alternatives analysis is prepared in support of CEQA's goals to foster informed decision making and public participation (14 CCR 15126.6(a)). An EIR is not required to evaluate the environmental impacts of alternatives at the same level of detail as the proposed project, but it must include enough information to allow meaningful evaluation, analysis, and comparison with the proposed project.

The alternatives analysis is required even if the alternatives "would impede to some degree the attainment of the project objectives, or would be more costly" (14 CCR 15126.6(b)). An EIR must evaluate "only those alternatives necessary to permit a reasoned choice" (14 CCR 15126.6(f)) and does not need to consider "every conceivable alternative" to a project (14 CCR 15126.6(a)). The alternatives evaluated should be "potentially feasible" (14 CCR 15126.6(a)), but inclusion of an alternative in an EIR does not constitute definitive evidence that the alternative is in fact "feasible." The final decision regarding the feasibility of alternatives lies with the decision makers for a given project who must make the necessary findings addressing the feasibility of alternatives for avoiding or substantially reducing a project's significant environmental effects (California Public Resources Code, Section 21081; see also 14 CCR 15091).

This chapter identifies the alternatives that were included for analysis, evaluates the environmental impacts associated with them, and compares the impacts with those of the General Plan Biological Resources Policy Update and Oak Resources Management Plan (proposed project). This chapter also identifies those alternatives considered by the County of El Dorado (County) but not carried forward for detailed analysis, and it describes the basis for the County's decision to omit those alternatives from the detailed analysis.

In conformity with CEQA, the purpose of this analysis is to focus on alternatives that are potentially feasible and that would avoid or substantially lessen any of the significant effects of the project. Those impacts that are significant and unavoidable are listed in the following section.

10.2 SIGNIFICANT AND UNAVOIDABLE ENVIRONMENTAL IMPACTS

A summary of the potentially significant and significant impacts of the proposed project, the applicable mitigation measures, and the residual level of impact significance is provided in Chapter 1, Executive Summary. The significant and unavoidable impacts are also listed below:

Impact LU-2 Substantially alter or degrade the existing land use character of the County

Impact BIO-1 Result in the loss and fragmentation of wildlife habitat

Impact BIO-2 Have a substantial adverse effect on special-status species

Impact BIO-3 Have a substantial adverse effect on wildlife movement

Impact BIO-4 Result in the removal, degradation, and fragmentation of sensitive habitats

Impact FOR-1 Result in the loss of forest land or conversion of forest land to non-forest use.

Impact FOR-2 Conversion of forest land to non-forest use.

Impact GHG-1 Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment

Impact VIS-2 Substantially degrade the existing visual character or quality of the local area or region

10.3 PROJECT OBJECTIVES

The primary objectives of the proposed project are set forth in Chapter 3, Project Description, of this EIR and include the following:

General Plan Policy Revisions

- Develop biological resources policies that are self-implementing and do not need further clarification, interpretation, or policy determination.
- Clearly define what resources are covered and the types of development activities affected by the policies.
- Streamline the County's environmental review process related to biological resources by describing mitigation options that are clearly defined to govern evaluation, impact assessment, and mitigation for biological resources within the County.
- Establish policies that comply with state and federal law and are defensible and effective.

Oak Resources Management Plan

- Adopt an Oak Resources Management Plan to define mitigation requirements for impacts to oak woodlands, individual native oak trees, and Heritage Trees, and to outline the County's strategy for oak resource management and conservation.
- Adopt an Oak Resources Management Plan that complies with Implementation Measure CO-P and constitutes the oak portion of the County's biological resources mitigation program (General Plan Policy 7.4.2.8).
- Establish a plan for voluntary conservation that landowners, the County, and others can use to seek grants and cost-sharing from state and federal programs for oak woodland conservation in El Dorado County.

10.4 ALTERNATIVES ANALYSIS

This section evaluates two alternatives to the proposed project, including the No Project Alternative. The No Project Alternative is a required element of an EIR pursuant to Section 15126.6(e) of the CEQA Guidelines that examines the environmental effects that would occur if the project were not to proceed. The other alternative is discussed as part of the "range of reasonable alternatives."

Project Alternatives

The project alternatives were chosen based on balancing each alternative's ability to best meet the project objectives stated above and to avoid or substantially lessen the significant effects of the proposed project. The selected alternatives constitute a reasonable range of project alternatives due to their consideration of different variations in the proposed project. As noted previously, the intent of this alternatives analysis is to identify a means of avoiding or substantially lessening any of the significant environmental effects associated with implementation of the proposed project.

The environmental effects of each alternative relative to the environmental effects of the proposed project are evaluated below. These conclusions are also listed in the alternatives summary matrix provided at the end of this discussion.

The alternatives addressed in this section are listed below, followed by a more detailed discussion of each.

Alternative 1: No Project/No General Plan Amendment or Oak Resources Management Plan (ORMP). CEQA requires that the EIR include consideration of the No Project Alternative. This would be defined as continued implementation of the existing General Plan policies,

including the oak canopy retention and replacement standards included in Policy 7.4.4.4 (Option A) and inch-for-inch tree replacement. Although the oak mitigation in-lieu fee (Option B) and completion of the Integrated Natural Resources Management Plan (INRMP) are anticipated under current policies, these programs have not been adopted and therefore are not part of the No Project condition. A high degree of speculation as to the content and requirements of those anticipated programs would be necessary in order to evaluate them as part of the No Project condition. Instead, the current requirements of the County's adopted Interim Interpretive Guidelines for Policy 7.4.4.4 and existing Policy 7.4.5.2 are used to define mitigation requirements for impacts to oak resources under the No Project alternative.

Alternative 2: Minimum Oak Woodland Retention Requirement. This alternative assumes that the proposed ORMP is modified to include a requirement that all future development on sites that contain oak woodlands achieve a minimum oak woodland retention of 30%. The other provisions of the proposed ORMP and the proposed General Plan biological resources objectives, policies, and implementation measures would remain as proposed. This includes the mitigation for individual tree impacts and the mitigation requirements for losses of other habitat types.

Alternatives Considered But Rejected

The following alternatives were initially considered but rejected from further consideration. The CEQA Guidelines (14 CCR 15000 et seq.) provide that reasons to eliminate potential alternatives from detailed consideration in an EIR can include (1) failure to meet most of the basic project objectives, (2) infeasibility, and (3) inability to avoid significant environmental impacts. Factors that may be considered to determine whether an alternative is feasible include site suitability, economic viability, and general plan consistency. The following alternatives were preliminarily considered but rejected from further evaluation for the reasons described below.

No Net Loss of Oak Woodlands Alternative: This alternative would modify the ORMP to require that mitigation for loss of oak woodlands achieve a "no net loss" standard. This would require preservation of existing woodlands and restoration of degraded woodland habitat and areas that historically supported woodlands, so that the total acreage of woodlands in the County does not decrease, but remains constant or increases. It is expected that this alternative would require greater amounts of on-site retention for all future development projects that affect oak woodland and a focused effort on woodland restoration and creation. Achieving a no net loss standard would require extensive restoration programs and replanting to offset the temporal loss of oak woodlands. Although this alternative would avoid the project's significant impacts related to habitat loss and greenhouse gas (GHG) emissions, this alternative was rejected as infeasible because it would constrain development to the extent that it would prevent the County from fully implementing the General Plan and would be contrary to existing policies. Further, it would

likely increase costs of development in the El Dorado Hills and Cameron Park communities, where the majority of the oak woodland impacts are anticipated to occur. This would drive more development into the County's rural areas, particularly those at higher elevations where oaks are less common. This would increase development intensity and habitat loss in those areas and require residents to drive further to reach the commercial and employment opportunities in the community regions, thus increasing air pollution and GHG emissions. Further, this would be incompatible with the General Plan's goals for arranging land uses by intensity, with higher-intensity, more urban and suburban uses in the Community Regions of El Dorado Hills and Cameron Park, which allows for the more rural communities to support lower-intensity land uses and retain their rural character. Specifically, this alternative would conflict with General Plan policies that encourage concentration of high-intensity uses in Community Regions and Rural Centers to preserve the remaining Rural Regions as open space and natural resource areas (including agriculture and timber).

Assessment District Alternative: An additional alternative initially considered but not evaluated further was a County-sponsored assessment district to finance acquisition of woodland habitat and other sensitive resource lands. An assessment district would cover either all property within the West Slope or all property that supports or is adjacent to oak woodlands (as determined by the FRAP data). The assessment district would be predicated on the regional public benefits of oak woodland preservation and utilize the significant property values within the assessment area to finance acquisition, preservation and restoration of woodland habitat. Assessment districts are frequently used to finance the development and operations of public improvements and amenities. As a result of Proposition 218 (passed by California voters in 1996), assessment district and assessment levies have become more difficult to implement because (a) the special benefits of the funded activity must be separated from the general public benefits and only special benefits can be assessed, (b) the potential for property owner protest which can result in a veto of the assessment proceeding and (c) all public property must be assessed as well. Assessment procedures are easier to justify in the case of financing a facility with local benefits such as a drainage basin, landscaping or lighting improvements. The difficulty in levying assessments for activities that create less identifiable tangible benefits such as habitat or viewshed protection was confirmed by the California Supreme Court's decision in Silicon Valley Taxpayers Association v. Santa Clara County Open Space Authority (2008) 44 Cal.4th431. That, coupled with the significant public land holdings within the potential assessment district boundaries means that an assessment district would not likely be successful. Thus this alternative is not considered one that the County could feasibly implement.

Habitat Fragmentation/Wildlife Movement Alternative: As suggested through comments on the Notice of Preparation for this EIR, this alternative would eliminate the Important Biological Corridor (IBC) overlay designation and apply requirements related to protection of wildlife movement corridors to all property within the County's jurisdiction. The basis of this alternative is

that only some property owners carry the burden of meeting the requirements under the IBC designation; this alternative would require all property owners to evaluate and mitigate impacts to wildlife movement. However, as the IBCs identify corridors that connect major habitat areas and those lands where wildlife movement is most likely to occur and are most important to protecting the range and distribution of wildlife throughout the County, the application of wildlife movement requirements to areas outside the IBCs would not reduce or avoid any of the project's significant impacts. Specifically, requiring an analysis of wildlife movement would not directly lead to a reduction in the loss or fragmentation of wildlife habitat, avoid adverse effects to special-status species, or protect sensitive habitats. Further, any development project seeking discretionary approvals would be required to evaluate and mitigate site-specific effects on wildlife movement. Application of these requirements to projects requiring only ministerial development approvals outside of the identified IBCs would not substantially reduce the potential impacts to wildlife movement from implementation of the proposed project. As this alternative would not reduce or avoid the project's impacts, it is not necessary to evaluate it further.

No Development in IBCs Alternative: An alternative that would prohibit all development within the County's identified IBCs was also considered. While this would ensure that there would be no change to wildlife movement and habitat characteristics within the IBCs due to buildout of the General Plan, this alternative would not increase protection for wildlife movement compared to the proposed project because the proposed policy requires that development within the IBCs must result in no net loss standard of wildlife movement functions and values. The proposed policies recommend that when identifying parcels for preservation as required under the proposed Biological Resource Mitigation Program, that locations within the IBCs be prioritized. Any parcels within the IBCs that are designated for preservation would not be subject to any additional development, which would provide for some limitations on development in the IBCs. In addition to not reducing or avoiding any of the project's significant effects, this alternative would deprive property owners of reasonable use of their property and thus would not be feasible for the County to implement.

Replacement Tree Sizes Alternative: This alternative would require that replacement tree planting for individual native oak tree impacts be accomplished with 15-gallon container-sized oak trees. Replacement ratios would require planting one oak tree for every 1 inch of tree diameter removed, unless the removed tree was a heritage oak, in which case mitigation would be at a 3 to 1 ratio (3 oaks trees for every inch of tree diameter removed). However, this alternative was rejected from further analysis because it would not avoid or reduce any of the project's significant impacts and would not improve the effectiveness of the proposed mitigation requirements. The use of 15-gallon container trees can be problematic due to the taprooting nature of oak trees and the potential for containerized oaks to become container-bound (Hobbs and Young 2001). Because oak trees rely first on their taproots before the sprout breaks the surface, it is relatively common for the taproot to reach the bottom of the container before being

planted. If the seedling is left in the container for too long, even if the seedling is transferred to open ground, the taproot may fail to grow further downward into the new soil. Therefore, container bound seedlings may not successfully adapt to a planting site, reducing their survival potential (Young and Evans 2005). The proposed ORMP allows replanting to be accomplished with a variety of container sizes, including 15-gallon containers. The determination of which size seedling container is appropriate to a given mitigation site would be made by a qualified professional in consideration of soil type, maintenance needs, access, and available irrigation. The variation in seedling container sizes allowed in the ORMP provides for flexibility in oak tree replacement projects to allow for consideration of these factors.

Conservation Alternative: This alternative would reduce the minimum habitat area requirement for conservation sites. This would be an alternative to the proposed ORMP requirement that "Land or conservation easement acquisition as mitigation of oak woodland impacts that occurs outside of Priority Conservation Areas (PCAs) shall occur on minimum contiguous habitat blocks of 5 acres" and the requirement in proposed Policy 7.4.2.8.D (Habitat Protection) that "Mitigation for impacts to vegetation communities defined above in Section A will occur within the County on a minimum contiguous habitat block of 5 acres." This alternative is rejected from further consideration because it would not reduce or avoid any of the significant impacts of the proposed project and would decrease the effectiveness of the proposed mitigation requirements by allowing conservation of smaller habitat areas. Smaller habitat areas would not provide the full range of habitat characteristics necessary to protect the range and distribution of habitats and special-status species. Further, this alternative would increase impacts related to habitat fragmentation and would not meet the General Plan goals of protecting large expanses of natural habitat.

Increased Protection Within Community Regions Alternative: This alternative would modify the ORMP to revise the definitions of each exempt activity such that no activities within the Community Regions would be exempt. This alternative would also revise the proposed General Plan policies to require that the vegetation community preservation required under proposed policy 7.4.2.8 must occur within the same Community Region in which the impact occurs. This alternative would provide for a greater level of protection of biological resources (and their associated aesthetic values) within the county's identified Community Regions. This could limit the amount of habitat loss and adverse visual effects within those regions, but would not necessarily reduce the degree of habitat fragmentation that occurs. While this alternative might reduce impacts within Community Regions, it would not reduce the total amount of habitat loss that would occur county-wide. Rather, it would be likely to reduce the amount of development that could occur within the Community Regions, thus displacing some of that development into the county's rural regions. This would increase development intensity and habitat loss in those areas and require residents to drive further to reach the commercial and employment opportunities in the community regions, thus increasing air pollution and GHG emissions. Further, this would be incompatible with the General Plan's goals for arranging land uses by

intensity, with higher-intensity, more urban and suburban uses in the Community Regions of El Dorado Hills and Cameron Park, which allows for the more rural communities to support lower-intensity land uses and retain their rural character. Specifically, this alternative would conflict with General Plan policies that encourage concentration of high-intensity uses in Community Regions and Rural Centers to preserve the remaining Rural Regions as open space and natural resource areas (including agriculture and timber).

Alternative 1: No Project/No General Plan Amendment or ORMP

Under the No Project Alternative, neither the proposed amendments to the General Plan nor the ORMP would be adopted. The existing General Plan objectives and policies would continue to be implemented. This would include the County's Interim Interpretive Guidelines for Policy 7.4.4.4 and Policies 7.4.5.1 and 7.4.5.2 as currently written. The General Plan buildout projections used for this EIR would also be applicable to the No Project Alternative. As discussed in Chapter 4, Methodology and Assumptions, the County developed the "20-year residential growth forecast by considering the amount and distribution of growth that has historically occurred within the county, future demand and market trends, General Plan policies regarding how and where to accommodate future growth, location and availability of developable parcels, as well as other factors" (El Dorado County 2015). Under the No Project Alternative, development would need to comply with the existing General Plan policies. This could alter the location of development but would not be expected to substantially reduce the total amount of development through 2025 and 2035. Therefore, both the proposed project and the No Project Alternative would result in similar levels of development and resultant habitat conversion as described in the 2004 General Plan EIR and the TGPA-ZOU EIR.

Land Use/Planning

The proposed project would result in less-than-significant impacts related to consistency with applicable plans and policies and creation of incompatibility between land uses. The proposed project would result in a significant and unavoidable impact to community character.

Under the No Project Alternative, the current policies in the General Plan and the OWMP would remain in place. This alternative would have slightly reduced impacts to community character because under the Interim Interpretive Guidelines for Policy 7.4.4.4, on-site retention of oak canopy would be required. It is noted that the existing General Plan Policy 7.4.4.4 includes Option B, which allows for payment of an in-lieu fee rather than retaining oak canopy on site, however, this Option is not currently available to development applicants and thus it is not assumed to be used under the No Project Alternative. On-site canopy retention would ensure that greater amounts of oak canopy are maintained as future development projects are implemented, which would retain the natural elements that contribute to community character. However, as development intensity on

individual lots is reduced to accommodate the minimum required oak canopy retention, this alternative may increase developmental pressure in rural areas and thus lead to a greater loss of community character in those areas. Further, due to the overall level of new development anticipated under the General Plan, the impact would remain significant and unavoidable, consistent with the prior analysis of the impacts associated with General Plan buildout.

Biological Resources

The proposed project would result in significant and unavoidable impacts related to loss and fragmentation of wildlife habitat; adverse effects on special-status species and wildlife movement; and removal, degradation, and fragmentation of sensitive habitats. Under the No Project Alternative, the General Plan policies would remain as adopted, and impacts to oak resources would be regulated under the Interim Interpretive Guidelines for Policy 7.4.4.4 and existing Policies 7.4.5.1 and 7.4.5.2.

Tables 10-1 and 10-2 summarize how the proposed changes to General Plan policies and the provisions of the proposed ORMP could affect biological resources in comparison to the existing policies and guidelines.

Table 10-1
Summary of Effects of Proposed ORMP

Change	Effects
Re-title the Oak Woodland Management Plan to Oak Resources Management Plan (ORMP), consistent with General Plan Implementation Measure CO-P.	Changing the name of the plan would have no effect.
Include measures to address impacts to and mitigation for individual native oak trees, Heritage Trees, and oak woodlands.	Measures to address impacts to and mitigation for individual native oak trees, Heritage Trees, and oak woodlands exist in current Policy 7.4.4.4 (oak woodlands), Policies 7.4.5.1 and 7.4.5.2 (individual trees), and the Interim Interpretive Guidelines for El Dorado County General Plan Policy 7.4.4.4 (Option A) (oak woodlands). Heritage Trees are not directly addressed in current policy; however, Policy 7.4.5.2 provides protection for oak trees measuring 36 inches or greater in diameter. This change provides clearer resource definitions and clarifies oak resource mitigation requirements. This would not lead to increased adverse effects on oak resources.
Include relevant information from the 2008 Oak Woodland Management Plan and the County's Interim Interpretive Guidelines for General Plan Policy 7.4.4.4 (Option A).	Information retained from the 2008 Oak Woodland Management Plan and the County's Interim Interpretive Guidelines for Policy 7.4.4.4 (Option A) includes background information, biological resource information, and relevant definitions. Where applicable, definitions have been revised and/or updated. Inclusion of this information in the ORMP would have no adverse effect.

Table 10-1
Summary of Effects of Proposed ORMP

Change	Effects
Include requirements to measure oak woodland impacts by oak woodland extent, not canopy cover.	Using canopy cover as unit of measurement for oak woodlands does not fully account for the extent of oak woodlands. Requiring oak woodland to be the unit of measurement for determining oak woodland impacts is consistent with PRC 21083.54 and would more accurately quantify impacts to biological resources. This change would have no adverse effect.
Include specific definition of Heritage Trees based on tree species and trunk diameter measurement.	Policy 7.4.5.2 provides protection for oak trees measuring 36 inches or greater in diameter. This change more clearly defines what constitutes a Heritage Tree and would have no adverse effect.
Include revisions to exemptions and mitigation reductions, and consolidate the exemptions to apply to all oak resources impacts, with minor exceptions (i.e., affordable housing reductions applied only to oak woodlands, and there are no exemptions for Heritage Tree impacts).	Revisions to and consolidation of exemptions include additional activities and actions which would be exempted from oak resources impact mitigation requirements than exist in current Policies and the County's Interim Interpretive Guidelines for Policy 7.4.4.4. Some exemptions that currently apply only to individual native oak trees would also apply to oak woodlands with this change. Therefore, this change may have an adverse effect.
Remove canopy cover retention requirements and replace with an incentive-based approach that requires higher mitigation ratios with increased level of oak woodland impacts.	The current General Plan Policy 7.4.4.4 identifies two mitigation options for impacts to oak woodlands: retention and replacement of impacted oak canopy at a 1:1 ratio or payment of an in-lieu fee at a 2:1 ratio. Currently, the in-lieu fee option (Option B) is inoperative. The change requiring higher mitigation ratios with increased levels of oak woodland impacts consolidates the two options in Policy 7.4.4.4 into one approach that would incentivize oak woodland retention. In the absence of an in-lieu fee option (Option B), canopy cover retention requirements are effectively mandatory, although do not meet the full intent of Policy 7.4.4.4. Based on the fact that only Option A of Policy 7.4.4.4 and the corresponding Interim Interpretive Guidelines are currently operative, removal of canopy cover retention requirements may have an adverse effect.
Establish two-tiered mitigation approach to clearly outline mitigation requirements for impacts to individual native oak trees, Heritage Trees, and oak woodlands.	This change removes redundant language in Policy 7.4.5.2, which could require both individual native oak tree mitigation (under Policy 7.4.5.2) and oak woodland mitigation (under Policy 7.4.4.4) if individual oak tree removal is associated with an oak woodland impact. This change more clearly defines resource-specific mitigation requirements and would have no effect.
Clarify mitigation options to include replacement planting, conservation, and in-lieu fee payment.	Currently, the only mitigation option is retention and replacement because Option B of Policy 7.4.4.4 is inoperative. Including conservation and in-lieu fee payment as mitigation options would be consistent with General Plan Policy 7.4.4.4 and the requirements in PRC 21083.4. Including conservation and in-lieu fee payment as mitigation options would provide additional mitigation mechanism to ensure that lost oak resources can be replaced or compensated for and thus would have no adverse effect on the County's oak resources .

Table 10-1
Summary of Effects of Proposed ORMP

Change	Effects
Update oak woodland in-lieu fee amount and identify an in-lieu amount for individual tree mitigation.	As Option B of Policy 7.4.4.4 is currently inoperative, in-lieu fee payment is not a viable option for mitigating impacts to oak woodlands. However, including in-lieu fee payment as a mitigation option for oak woodland impacts would be consistent with the requirements in PRC 21083.4 and therefore would have no effect. Identification of an in-lieu fee for impacts to individual native oak trees would not result in increased impacts and therefore would have no effect.
Identify permit requirements for impacts to oak resources.	Identifying permit requirements would have no effect.
Add standards for identifying oak woodland mitigation areas outside of Priority Conservation Areas (PCAs).	Identification of standards for identifying oak woodland mitigation areas outside of PCAs would not result in increased impacts or lower the threshold for determining oak woodland mitigation site suitability, and would have no effect.

Table 10-2
Summary of Effects of Proposed Changes to General Plan Policies

Change	Effects
Objective 7.4.1: Revised to focus on Pine Hill plants.	No effect. Existing policy would allow preserves to be established for any state or federally recognized rare, threatened, or endangered species and their habitats. Under proposed Policy 7.4.2.8, preserves would be established for all habitat types that have a mitigation requirement. The purpose of this revised Objective is to limit the applicability of the detailed policies that relate only to the Pine Hill Preserves.
Policy 7.4.1.1 Add "where feasible" following reference to County Code Chapter 130.71 relating to consistency with the USFWS's Gabbro Soil Plants for the Central Sierra Nevada Foothills Recovery Plan (USFWS 2002).	No effect. Conservation of lands in the Pine Hill Preserves will be consistent with the Recovery Plan, to the extent feasible. This is no change from existing application of policy, as Recovery Plans are not binding requirements and consistency is always "to the extent feasible".
Policy 7.4.1.2 Add "Pine Hill rare plant" before "preserve sites" to clarify which preserves are addressed by this policy.	Potential to expand the opportunities for preserve acquisition as it eliminates the limit on acquisition from willing sellers to only Pine Hill Plan preserves. However, the Biological Resource Mitigation Program proposed under Policy 7.4.2.8 would establish a database of willing sellers for use in preserve acquisition. Further, use of eminent domain to acquire preserve lands is highly unlikely so for the purposes of this EIR it is assumed that this would have no effect.
Policy 7.4.1.3 Add text "Pine Hill rare plant" before "preserve areas" to clarify which preserves are addressed by this policy.	Would limit the application of the land use restrictions in the policy to Pine Hill Preserves. Other conservation lands established through the Biological Resource Mitigation Program proposed under Policy 7.4.2.8 would not be subject to this policy.
Policy 7.4.1.4 Replace "Proposed rare, threatened, or endangered species preserves" with "The Pine Hill Preserves" to clarify which preserves are addressed by this policy.	Would limit the protection under the EP overlay standards to Pine Hill Preserves. The EP overlay standards would not apply to other conservation lands established through the Biological Resource Mitigation Program proposed under Policy 7.4.2.8.

Table 10-2
Summary of Effects of Proposed Changes to General Plan Policies

Change	Effects
Policy 7.4.1.5 Deleted text	Refer to Policy 7.4.2.8 below.
Policy 7.4.1.6 Delete text	Refer to Policy 7.4.2.8 below.
Policy 7.4.1.7 Move to Policy 7.4.2.2	No effect.
Policy 7.4.2.1 Revise language to address coordinating wildlife and vegetation protection programs with appropriate federal and state agencies.	No effect, as the language in Policy 7.4.2.1 is consistent with the language removed from Objective 7.4.3.
Policy 7.4.2.2 Delete policy; replace with prior Policy 7.4.1.7 regarding noxious weeds.	Potential to increase impacts from development because it removes the requirement to cluster development or use density transfers when development is proposed in "critical wildlife areas" or migration corridors. However, clustering is still encouraged in Policy 7.4.4.3, which would minimize the adverse effect. The noxious weed policy already existed so changing its policy number would have no effect.
Policy 7.4.2.4 Revise text to clarify that active management is not required.	Potential to reduce the habitat quality of wildlife habitat corridors in the absence of active management. Generally, preservation of the corridor should suffice to maintain its functionality for wildlife movement, so this would have little to no adverse effect.
Policy 7.4.2.6 Delete policy	Potential to improve protection of special-status plant species because it requires the County to protect all special-status plants, regardless of whether the state or federal government has established a plan for the species.
Policy 7.4.2.7 Delete policy to remove requirement to maintain the PAWTAC, but does not preclude the County from re-convening the PAWTAC when necessary.	Potential to reduce public and scientific community input on decisions made by the County related to biological resource protection. However, the role of the PAWTAC was not clearly defined in the existing General Plan and it had no governing authority. Further there is no prohibition on convening any advisory groups as warranted. This change would have no effects on impacts to or mitigation of biological resources.
Policy 7.4.2.8 Revise to delete INRMP and to include: • Requirement for wildlife movement studies for 4-, 6-, and 8-lane roadway projects • Requirement for a biological resources technical report and establishment of mitigation ratios for special-status biological resources • Identification of criteria for conservation lands • Establish a voluntary database of willing sellers • Biological resource mitigation program • Habitat protection strategy	As described in Policy 7.4.2.8, the INRMP was anticipated to include extensive collection of baseline data, monitoring, and active management of preserved lands within the County. The proposed Biological Resource Mitigation Program (Program) is focused on the acquisition and preservation in perpetuity of habitat and migratory corridors, including aquatic/wetland habitat and large expanses of native vegetation. The Program establishes fixed mitigation ratios for habitat types aside from oak woodlands and Pine Hill Plants. Existing policy did not specify mitigation ratios for anything other than oak woodland, simply stating that mitigation fees could be used to acquire preserves. The Program also creates the requirement for a site-specific Biological Resources Assessment, whereas the INRMP relied on County-wide monitoring data to identify biological resources that might be affected by a development project. The proposed Program would also require a wildlife movement study for 4-, 6- and 8-lane highway projects whereas the INRMP required only "consideration of wildlife movement." Because the existing policies were not specific in their requirements and were never fully implemented, their efficacy and feasibility are difficult to determine. Based on the increased specificity of the proposed Program, the revisions to this policy would likely result in increased protection of biological resources.

Table 10-2
Summary of Effects of Proposed Changes to General Plan Policies

Change	Effects
Policy 7.4.2.9 Add provisions for lands within the Important Biological Corridor (IBC) overlay.	Although the proposed provisions are less specific than the existing provisions and allow greater discretion on the part of the County on a project-by-project basis, the proposed policy would require a developer to demonstrate no net loss of wildlife movement function and value for special-status species and large mammals. By including the no net loss standard, the proposed policy would be more effective at protecting wildlife movement than the existing policies.
Objective 7.4.3: Incorporated objective into Policy 7.4.2.1.	No effect, as the language in Policy 7.4.2.1 is consistent with the language removed from Objective 7.4.3.
Objective 7.4.4: Consolidate Objective 7.4.4 and 7.4.5 to address oak woodlands and trees together.	Consolidating objectives would have no effect.
Policy 7.4.4.2 Revise to reflect the conservation portion of the mitigation/conservation approach.	This policy directs the County to encourage conservation of native trees, along with the previously included protection, planting, restoration, and regeneration of native trees. No potential for adverse effects to biological resources from adding this language, especially as the previous language to "encourage" was non-binding.
Policy 7.4.4.3 Revise to accurately reflect County's role in development planning.	Previous language directed the County to "utilize" clustering of development, when that is something that would be done by the developer. The new language directs the County to "encourage" clustering, which is consistent with the County's role. Language was also changed to ensure that the clustering retains contiguous forest and woodlands, without directing them to remain as wildlands. This policy doesn't change the County's role, and would not result in adverse effects.
Policy 7.4.4.4 Revise to refer to oak woodland and oak tree mitigation requirements in the Oak Resources Management Plan (ORMP). The Draft ORMP reflects the following revisions to the requirements previously contained in Policy 7.4.4.4: • Use of 'oak woodland' as a measurement. • Development of a 2-tiered mitigation approach that incorporates oak woodland mitigation (Policy 7.4.4.4) and oak tree mitigation (including heritage trees (Policy 7.4.5.2). Framework removes necessity for two oak woodland mitigation options (Option A and B) and removes retention standards by incorporating an incentive-based approach for oak woodland impact avoidance. • Replace two oak woodland mitigation options (Option A and B) and retention standards with an incentive-based approach for oak woodland impact avoidance • Identify projects or actions exempt from oak woodland and oak tree mitigation requirements • Add criteria for identifying conservation lands outside of Priority Conservation Areas (PCA)	Refer to ORMP discussion in Table 10-1.

Table 10-2
Summary of Effects of Proposed Changes to General Plan Policies

Change	Effects
Policy 7.4.4.5 Delete Policy - Draft ORMP provides requirements for mitigation.	Refer to ORMP discussion in Table 10-1.
Objective 7.4.5: Merge Objective 7.4.5 with Objective 7.4.4 to address oak woodlands and individual oak trees (including Heritage Trees). Remove 'Vegetation' as non-tree vegetation is addressed in Policy 7.4.2.8.	Refer to ORMP discussion in Table 10-1.
Policy 7.4.5.1 Remove Policy 7.4.5.1 as it is redundant with Policy 7.4.5.2 which has been merged with Policy 7.4.4.4.	Refer to ORMP discussion in Table 10-1.
Policy 7.4.5.2 Merge Policy 7.4.5.2 with Policy 7.4.4.4 to comprehensively address oak woodlands and oak tree resources in a 2-tiered framework as identified in the ORMP.	Refer to discussion of Policy 7.4.4.4 above.
Measure CO-L: Revise to reflect changes to Policy 7.4.2.8.	Refer to discussion of Policy 7.4.2.8 above.
Measure CO-M: Delete to reflect changes to Policy 7.4.2.8.	Refer to discussion of Policy 7.4.2.8 above.
Measure CO-N: Delete to reflect changes to Policy 7.4.2.9.	Refer to discussion of Policy 7.4.2.9 above.
Measure CO-P: Revise to reflect changes to Policy 7.4.4.4 and the ORMP.	Refer to ORMP discussion in Table 6-6.
Measure CO-U: Delete to reflect changes to Policy 7.4.2.8	Refer to discussion of Policy 7.4.2.8 above.

Habitat Loss and Fragmentation

Current General Plan Policy 7.4.4.4 identifies two mitigation options for impacts to oak woodlands: retention and replacement of impacted oak canopy (woodland) at a 1:1 ratio or payment of an in-lieu fee at a 2:1 ratio. Although the current policy anticipates an in-lieu fee option (Option B), this option is inoperative at this time. While the proposed ORMP does not require a minimum level of on-site retention, mitigation would be required for impacts to oak woodlands through oak replacement planting and conservation of oak woodlands in the County. In comparison, under the No Project Alternative, on-site retention of oak canopy is required. However, the resulting patches of retained oak canopy are not likely to function as a cohesive habitat block. The habitat value of the individual retained areas would be expected to be reduced compared to the existing physical conditions. Further, to the extent that retaining oak canopy on site would reduce development intensities on individual parcels, it would be expected that a greater total number of parcels would be developed to accommodate the projected growth within the County. This could result in greater amounts of habitat loss and fragmentation (across all habitat types, not just oak woodlands) County-wide. Thus the No Project Alternative could

reduce impacts related to habitat loss at the project-level scale but would not reduce impacts related to habitat loss and fragmentation County-wide.

Proposed Policy 7.4.2.8 would require that habitat impacts be mitigated according to a set ratio, so regardless of County establishment of preserves, the same amount of habitat must be preserved and/or created as mitigation. Therefore, under the No Project Alternative, retention of Objective 7.4.1 as adopted would not reduce impacts related to loss and fragmentation of wildlife habitat.

Under the No Project Alternative, existing Policy 7.4.2.2 would require development proposed in "critical wildlife areas" or migration corridors to be clustered or use density transfers. This requirement is not included in the proposed policies. Thus, the No Project Alternative could result in reduced impacts to habitat fragmentation. However, the proposed project replaces the requirement for clustering or density transfers with a "no net loss" standard for wildlife movement. This "no net loss" standard is not expressed in current policies. The effect of the proposed project would be to allow flexibility in how the "no net loss" standard is achieved, rather than specifying the use of clustering and density transfers. The "no net loss" standard for wildlife movement is defined for the proposed project as sustainably maintaining wildlife movement post-development. The site-specific wildlife movement studies within the biological resources technical reports will evaluate site-specific methods to sustainably maintain wildlife movement within the IBCs post-development. Because the No Project Alternative does not include this standard, the No Project Alternative would not reduce impacts to wildlife movement compared to the proposed project.

Special-Status Species

Under the No Project Alternative, the County would be required to adopt an INRMP. It is the intent of the existing General Plan that the INRMP would identify and protect important habitat areas and biological resources, including special-status species. However, as discussed above, the INRMP has not yet been adopted and therefore is not part of the No Project condition. A high degree of speculation as to the content and requirements of the INRMP would be necessary in order to evaluate it as part of the No Project condition. As the requirements of the INRMP cannot be known, it is not feasible to determine how impacts to special-status species might be evaluated and mitigated under such a plan, and therefore no assumptions as to the effectiveness of the INRMP at avoiding or compensating for impacts to special-status species have been made.

Under the No Project Alternative, Objective 7.4.1 allows preserves to be established for any state or federally recognized rare, threatened, or endangered species and their habitats. The proposed project would limit establishment of preserves to only the Pine Hill plants. The No Project Alternative would allow the County to establish preserves for a wider range of special-status species compared to the proposed project. However, the No Project Alternative does not

include minimum required mitigation ratios for impacts to habitat and would not necessarily result in establishment of new preserves for any species or habitats. In other words, the No Project Alternative allows for new preserves to be established but does not require any level or amount of preservation. Because the proposed project would create the Biological Resources Mitigation Program (Program) described in proposed Policy 7.4.2.8, and that program would include minimum required mitigation ratios that would result in conservation of habitat , the No Project Alternative would not result in reduced impacts to special-status species.

As discussed previously, the No Project Alternative would retain a requirement for use of clustering and/or density transfers in "critical wildlife areas." This could provide for some avoidance of impacts to special-status species under the No Project Alternative. However, proposed revisions to Policies 7.4.2.8 and 7.4.2.9 would ensure that habitat is preserved, and that preserved lands would be on a minimum contiguous block of 5 acres. Further, the criteria for selection of preservation areas established in these policies emphasize connectivity with adjacent preserved parcels. These requirements, which do not exist under the No Project Alternative, would provide for preservation of habitat in large blocks (minimum of 5 acres) that would be more effective at protecting special-status species habitat than the No Project Alternative.

Under the No Project Alternative, development within the IBC overlays would be subject to the requirements of Policy 7.4.2.9, which include increased retention of natural habitats, reduced lot coverage and building height, and fencing restrictions. Under the proposed project, these specific requirements would be replaced with a requirement for site-specific evaluation of and protections for wildlife movement. A project applicant would have to retain a qualified biologist to conduct site-specific studies that identify special-status species that could move through a property. The applicant would then have to demonstrate that their project would result in no net loss of wildlife movement function and value for special-status species or large mammals. While the No Project Alternative prescribes specific mandatory provisions for development within the IBCs, it does not include a "no net loss" standard for wildlife movement. Therefore the No Project Alternative could result in greater impacts to movement of special-status wildlife through the IBC overlay areas. However, the No Project Alternative would result in greater protection for special-status plants because it includes a requirement that there be "no disturbance at all [to rare plants]" or disturbance only as recommended by U.S. Fish and Wildlife Service/California Department of Fish and Wildlife.

While the No Project Alternative could result in some reduction of impacts to special-status plants within the IBCs, it would not provide greater protection for special-status wildlife or greater protection for special-status plants outside the IBCs than the proposed project. Impacts would be significant and unavoidable under both the proposed project and the No Project Alternative.

Wildlife Movement

Under the No Project Alternative, existing General Plan policies provide protection for wildlife movement through requirements to use clustered development or density transfers in "critical wildlife areas" and movement corridors. While the proposed project would not require these techniques to be used, clustering is encouraged in proposed Policy 7.4.4.3, and the proposed project would require site-specific wildlife movement studies for projects located within the IBCs. As discussed previously, although the No Project Alternative prescribes specific mandatory provisions for development within the IBCs, it does not include a "no net loss" standard for wildlife movement. Additionally, the No Project Alternative does not provide the expanded protections for the Weber Creek IBC that are included in the proposed revisions to Policy 7.4.2.9, and does not include the habitat protection criteria included in proposed Policy 7.4.2.8.D (Habitat Protection), which calls for prioritizing acquisition of parcels that would preserve natural wildlife movement corridors such as crossings under major roadways (e.g., U.S. Highway 50) and across canyons. The minimum habitat conservation requirements identified in proposed Policy 7.4.2.8.A (Habitat Protection Strategy) along with the prioritization criteria in proposed Policy 7.4.2.8.D (Habitat Protection) and the "no net loss" criteria in proposed Policy 7.4.2.9 would provide greater protection for and sustainability of wildlife movement than the No Project Alternative. The proposed project would strengthen these requirements therefore the No Project Alternative could result in greater impacts to movement of wildlife compared to the proposed project.

Existing policies also require the County to actively manage wildlife habitat corridors. However active management of these corridors is not known to have occurred in the past under this policy, thus it is not a part of the No Project conditions.

Removal, Degradation, and Fragmentation of Sensitive Habitats

Under the No Project Alternative, the County would anticipate establishing a County-wide program for protection of sensitive habitats through the INRMP process. However, as discussed previously, this program does not currently exist and therefore is not part of the No Project conditions. Although existing Policy 7.4.2.8 provides that mitigation fees could be used to acquire habitat preserves, it does not specify mitigation ratios for any habitat types. The proposed project would replace the requirement for an INRMP with the proposed Biological Resources Mitigation Program (Program), which is focused on the acquisition and preservation in perpetuity of habitat and migratory corridors, including aquatic/wetland habitat and large expanses of native vegetation. The Program would establish fixed mitigation ratios for habitat types aside from oak woodlands and Pine Hill plants. Additionally, the proposed Program would require that a site-specific Biological Resources Assessment be prepared for each project, whereas existing Policy 7.4.2.8 relies on a County-wide database to identify biological resources

that might be affected by a development project. Because the No Project Alternative does not specifically require preparation of site-specific biological resource assessments or mitigation for habitat impacts, it would not reduce impacts related to removal, degradation, and fragmentation of sensitive habitats compared to the proposed project.

As discussed previously, the No Project Alternative would require specific design measures for projects within the IBC overlay, which overlaps with some sensitive habitats such as riparian, while the proposed Project would allow greater discretion on the part of the County on a project-by-project basis. While the proposed project would establish a "no net loss" standard for wildlife movement functions and values through the IBCs, this would not necessarily translate into greater protection for sensitive habitat. Although different protections would be offered, the No Project Alternative and the proposed project would result in similar impacts to sensitive habitat within the IBCs.

Forestry Resources

The proposed project would result in a significant and unavoidable impact related to loss or conversion of forest land due to the potential loss of oak woodlands under General Plan buildout. The proposed project would not adversely affect forest land values related to recreation and water quality. Potential effects from loss or conversion of forest land related to biological and visual resources and GHG emissions are evaluated in other sections of this EIR. Under the No Project Alternative, loss of forest land due to development projected under the General Plan would also result in less than significant impacts to recreation and water quality. As discussed in Chapter 7, Forestry Resources, the oak woodlands potentially converted under both General Plan buildout scenarios (2025 and 2035) are privately owned and consequently do not currently offer recreation opportunities. With respect to water quality, all future projects, including those that affect oak woodlands, would be required to meet the applicable water quality and stormwater management requirements of the General Plan and the National Pollutant Discharge Elimination System. This would ensure that impacts to water quality remain less than significant. A similar level of development is expected to occur with buildout of the General Plan under the proposed project and the No-Project Alternative. Therefore, the No Project Alternative would have the same significant and unavoidable impacts to forestry resources as the proposed project.

Greenhouse Gas Emissions

The proposed project would result in a significant and unavoidable impact due to GHG emissions that could occur as sequestered carbon within the oak woodlands affected by future development is released back into the atmosphere. The No Project Alternative includes a minimum retention standard for oak canopy ranging between 60 % and 90% of the existing canopy coverage. This would reduce the total acreage of oak woodlands lost due to development,

which would reduce the total amount of sequestered carbon released back to the atmosphere. Due to the sliding scale of retention requirements relative to existing canopy coverage, it is not feasible to calculate the acreage of oak woodlands that would be retained under the No Project Alterative. As discussed in Chapter 6, Biological Resources, it is expected that buildout of the General Plan through 2035 would result in loss of 6,442 acres of oak woodlands if no on-site retention occurs. If 60% of the existing woodland on each project site was retained, this would result in loss of 2,577 acres of oak woodlands. This would result in emissions of 377,788 metric tons of carbon dioxide equivalents ($MTCO_2E$). Averaged over the 19-year buildout timeline, this would represent emissions of 19,884 $MTCO_2E$ annually. This exceeds the GHG emissions thresholds recommended by the El Dorado County Air Quality Management District, and impacts would remain significant and unavoidable. However, the No Project Alternative would result in a substantial reduction in GHG emissions compared to the proposed project.

Visual Resources

The proposed project would result in a less-than-significant impact related to degradation of the quality of scenic vistas and scenic resources and a significant and unavoidable impact to degradation of the existing visual character of the region. As the development projections for the County would not change under the No Project Alternative, this alternative would result in similar impacts to scenic vistas and scenic resources as the proposed project.

Under the No Project Alternative, the current policies in the General Plan and the Interim Interpretive Guidelines for Policy 7.4.4.4 would remain in place. This would result in more on-site retention of oak canopy for future development activities compared to the proposed project. However, the impacts to visual character would remain significant and unavoidable consistent with the analysis in the 2004 General Plan EIR which recognized that the current development patterns would have a significant and unavoidable impact on the existing visual character or quality of the area or region due to the conversion of rural residential density to suburban residential development. The No Project Alternative would slightly reduce the potential for degradation of visual character by requiring more on-site retention of oak canopy, however this would not reduce this impact to a less-than-significant level. Therefore, the No Project Alternative would not avoid the significant and unavoidable impacts of the proposed project.

Feasibility: The No Project Alternative is not feasible because it would not meet any of the project objectives. It is evaluated in this EIR in compliance with the requirements of CEQA and the CEQA Guidelines.

Alternative 2: Minimum Oak Woodland Retention Requirement

This alternative assumes that the proposed ORMP is modified to include a requirement that all future development on sites that contain oak woodlands achieve a minimum oak woodland

retention of 30%. The other provisions of the proposed ORMP and the proposed General Plan biological resources objectives, policies, and implementation measures would remain as proposed. This includes the mitigation for individual tree impacts and the mitigation requirements for losses of other habitat types.

Land Use/Planning

The proposed project would neither conflict with any applicable land use plan, policy, or regulation; nor would it create substantial incompatibility between land uses and would, therefore, have no impact. It will, however, have a significant and unavoidable impact on the visual character of the County.

The Minimum Oak Woodland Retention Alternative would also neither conflict with any applicable land use plan, policy, or regulation nor create substantial incompatibility between land uses. It would, however, have a reduced impact on the visual character on the County as it would ensure that greater amounts of oak woodlands are maintained as future development projects are implemented. This would retain more of the natural elements that contribute to community character than the proposed project. However, the impact would remain significant and unavoidable, consistent with the prior analysis of the impacts associated with General Plan buildout. Further, as development intensity on individual lots is reduced to accommodate the minimum required oak woodland retention, this alternative may increase developmental pressure in rural areas and thus lead to a greater loss of community character in those areas. Therefore, impacts to land use under Alternative 2 would remain significant and unavoidable.

Biological Resources

The proposed project would result in significant and unavoidable impacts related to loss and fragmentation of wildlife habitat; adverse effects on special-status species and wildlife movement; and removal, degradation, and fragmentation of sensitive habitats. Under the Minimum Oak Woodland Retention Alternative, the proposed ORMP would be modified to include a requirement that all future development on sites that include oak woodlands must retain a minimum of 30 % of those woodlands. No changes to the proposed General Plan objectives, policies, and implementation measures would occur under this alternative.

Habitat Loss and Fragmentation

The addition of a minimum oak woodland retention standard to the ORMP would reduce loss of oak woodlands at the individual project level. However, the resulting patches of retained oak woodlands would not function as a cohesive habitat block. The habitat value of the individual retained areas would be expected to be reduced compared to the existing physical conditions. Further, to the extent that meeting the minimum retention standard would reduce development

intensities on individual parcels, it would be expected that a greater total number of parcels would be developed to accommodate the projected growth within the County. This could result in greater amounts of habitat loss and fragmentation (across all habitat types, not just oak woodlands) County-wide. Therefore Alternative 2 would result in similar impacts related to habitat loss and fragmentation as the proposed project.

Special-Status Species

The addition of a minimum oak woodland retention standard to the ORMP would reduce loss of oak woodlands at the individual project level. However, the habitat value of the individual retained areas would be expected to be reduced compared to the existing physical conditions. Therefore, the minimum retention standard included in Alternative 2 is not expected to reduce impacts to special-status species compared to the proposed project.

Wildlife Movement

As stated above, the addition of a minimum oak woodland retention standard to the ORMP would reduce loss of oak woodlands at the individual project level but would result in reduced habitat value within the individual retained areas. Where retained areas are adjacent to one another or other natural habitat areas, this increased retention could provide a minor benefit to wildlife movement. Thus, Alternative 2 could slightly reduce impacts to wildlife movement compared to the proposed project.

Removal, Degradation, and Fragmentation of Sensitive Habitats

The addition of a minimum oak woodland retention standard to the ORMP would have no effect on the removal, degradation, and fragmentation of sensitive habitats other than valley oak woodland. The retention requirement would ensure that a greater amount of valley oak woodland is preserved within development areas, but would not increase the total amount of valley oak woodland preserved within the County. Therefore Alternative 2 would result in similar impacts to sensitive habitats as the proposed project.

Forestry Resources

The proposed project would result in a significant and unavoidable impact related to loss or conversion of forest land due to the loss of oak woodlands (which meet the definition of forest land). Neither the proposed project or the Minimum Oak Woodland Retention Requirement Alternative would adversely affect forest land values related to recreation and water quality. Potential effects from loss or conversion of forest land related to biological and visual resources and GHG emissions are evaluated in other sections of this EIR. Under the Minimum Oak Woodland Retention Requirement Alternative, the total acreage of forest land lost to

development would be reduced through the requirement to maintain 30% oak woodlands on-site. On-site retention of oak woodlands under Alternative 2 would reduce impacts related to the loss of forest land to development.

Greenhouse Gases

The proposed project would result in a Significant and Unavoidable impact due to GHG emissions that could occur as sequestered carbon within the oak woodlands affected by future development is released back into the atmosphere. The Minimum Oak Woodland Retention Requirement Alternative would require that a minimum of 30% of all oak woodlands on a project site be retained on site. This is likely to reduce the total acreage of oak woodlands lost due to development, which would reduce the total amount of sequestered carbon released back to the atmosphere. As discussed in Chapter 6, Biological Resources, it is expected that buildout of the General Plan through 2035 would result in loss of 6,442 acres of oak woodlands if no on-site retention occurs. If 30% of the existing woodland on each project site was retained, this would result in loss of 4,509 acres of oak woodlands. This would result in emissions of 661,019 $MTCO_2E$. Averaged over the 19-year buildout timeline, this would represent emissions of 34,790 $MTCO_2E$ annually. This exceeds the GHG emissions thresholds recommended by the EDCAQMD, and impacts would remain significant and unavoidable. As evaluated in Chapter 8, Greenhouse Gasses, the proposed Project would result in between 26,727 and 49,705 $MTCO_2E$ emissions annually from loss of carbon sequestration. Thus, Alternative 2 would result in similar impacts as the proposed project.

Visual Resources

The proposed project would result in a less-than-significant impact related to degradation of the quality of scenic vistas and scenic resources and a significant and unavoidable impact to degradation of the existing visual character of the region. As the development projections for the County would not change under Alternative 2, this alternative would result in similar impacts to scenic vistas and scenic resources as the proposed project.

The Minimum Oak Woodland Retention Requirement Alternative would have a reduced impact on the visual character on the County as it would ensure that greater amounts of oak woodlands are maintained as future development projects are implemented. This would retain more of the natural elements that contribute to community character than the proposed project. However, the impact would remain significant and unavoidable, consistent with the prior analysis of the impacts associated with General Plan buildout. Further, as development intensity on individual lots is reduced to accommodate the minimum required oak woodland retention, this alternative may increase developmental pressure in rural areas and thus lead to a greater loss of community character in those areas. Therefore, impacts to visual character under Alternative 2 would remain significant and unavoidable.

Feasibility: This alternative is considered potentially feasible as it accomplishes most of the basic project objectives. However, the alternative may be considered to frustrate implementation of the General Plan in that it would be likely to result in greater amounts of development outside the County's identified Community Regions than is anticipated under the existing General Plan.

10.5 SUMMARY MATRIX

A matrix displaying the major characteristics and significant environmental effects of each alternative is provided in Table 10-3 to summarize the comparison with the proposed project.

Table 10-3
Project Alternatives Impacts Summary

Environmental Issue	Proposed Project Impacts	Alternative 1: No Project/No General Plan Amendment or ORMP	Alternative 2: Minimum Oak Woodland Retention Requirement
Land Use			
Plan Consistency	LTS	—	—
Community Character	SU	—	—
Land Use Compatibility	LTS	—	—
Biological Resources			
Habitat Loss	SU	—	—
Special Status Species	SU	▲	—
Wildlife Movement	SU	▲	▼ (remains SU)
Sensitive Habitats	SU	—	—
Forestry Resources			
Loss of Forest Land	SU	—	▼ (remains SU)
Indirect Loss of Forest Land	SU	—	▼ (remains SU)
Greenhouse Gas Emissions			
Total Emissions	SU	▼ (remains SU)	—
Plan Consistency	LTS	—	—
Visual Resources			
Scenic Vistas and Resources	LTS	—	—
Visual Character	SU	▼ (remains SU)	—

▲ Alternative is likely to result in greater impacts to issue when compared to proposed Project.
— Alternative is likely to result in similar impacts to issue when compared to proposed Project.
▼ Alternative is likely to result in reduced impacts to issue when compared to proposed Project.
LTS = Less-than-significant impact.
SU = Significant and unavoidable impact.

10.6 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

As indicated in Table 10-3, the Minimum Oak Woodland Retention Requirement Alternative would result in a slight reduction in environmental impacts compared to the proposed project and

would not increase the severity of any impacts. This alternative would not avoid any of the significant and unavoidable impacts of the proposed Project. However, because it would slightly reduce impacts to wildlife movement and loss of forest lands, it is considered the environmentally superior alternative under CEQA.

The No Project Alternative would reduce impacts in two resource areas (those impacts would remain significant and unavoidable) and would increase impacts in two other resource areas.

CHAPTER 11
OTHER CEQA CONSIDERATIONS

This chapter evaluates the following potential environmental effects associated with the proposed project:

- Effects Not Found to Be Significant (Section 11.1)
- Significant and Unavoidable Environmental Impacts (Section 11.2)
- Significant and Irreversible Environmental Changes (Section 11.3)
- Growth Inducement (Section 11.4)
- Energy Consumption (Section 11.5)
- Cumulative Impacts (Section 11.6)
- Capital Improvement Program Development Projections (Section 11.7)

11.1 EFFECTS NOT FOUND TO BE SIGNIFICANT

This section discusses potential environmental impacts from the Biological Resource Policy Update and Oak Resources Management Plan (ORMP) (proposed project) that were found not to be significant based on the analysis in the Notice of Preparation (NOP). The NOP for this EIR was released on July 17, 2015, for a 30-day public review period. An Initial Study was prepared with the NOP. Following comments on the NOP and proposed project, the draft ORMP was updated and a revised NOP was released for public review. The revised NOP was released on November 23, 2015, for a 30-day public review period. The Initial Study was not revised. Based on the analysis in the Initial Study, the impacts listed below were determined to be less than significant and therefore are not evaluated in the EIR:

- **Air Quality**: The proposed project would not include any specific land development, would not increase the allowable land-use intensity within the County, and would not increase growth projections for the County. The proposed project would not result in the generation of air pollutants and therefore would not result in a significant impact on air quality.
- **Cultural Resources**: The proposed project would not include any specific land development, would not increase the allowable land-use intensity within the County, and would not increase growth projections for the County. The project would not result in or contribute to disturbance of pre-historic resources, historic resources, paleontological resources, or human remains. There would be no impact to cultural resources.
- **Geology and Soils**: The proposed project does not include any specific land development, would not increase allowable land use intensity within El Dorado County, and would not alter the County of El Dorado's (County) requirements for protection of

geologic and soil resources. Therefore, the proposed project would have no impact on geology and soils.

- **Hazards and Hazardous Materials**: As the proposed project does not include any specific land development, it would not result in a release of hazardous materials into the environment, and would not increase the number of people potentially exposed to wildfire risks. Further, the proposed project would not increase allowable land-use intensity within the County and would not alter the County's requirements for protection of people from exposure to hazards and hazardous materials. There would be no impact related to hazards and hazardous materials associated with the proposed project.
- **Hydrology and Water Quality**: As the proposed project does not include any specific land development, it would not result any direct effects to hydrology and water quality. The proposed project would not increase the allowable land-use intensity within the County, or increase land development projections for the County. All future development would be required to meet the stormwater management standards of the County's General Plan, the County's Drainage, Stormwater Construction and Post-Construction Requirements, the County's Stormwater Quality Ordinance (No. 5022), and the National Pollution Discharge Elimination System. The proposed project would have no impact related to hydrology and water quality.
- **Mineral Resources**: The proposed project does not involve any specific land development that could restrict access to mineral resources, and would not increase land-use intensity or growth projections for the County. The proposed project would have no impact on mineral resources.
- **Noise**: The proposed project would not alter the locations of various land-use types within the County, increase the proximity of noise-sensitive land uses to noise sources, or increase land-use intensity or development projections for the County. The proposed amendments to the General Plan are not associated with any change in the potential for noise to occur. There would be no impact related to noise associated with the proposed project.
- **Population and Housing**: The proposed project would not increase the allowable land-use intensity within the County or increase growth projections for the County. The proposed project would not cause or contribute to increases in population or increased demands for housing. The proposed project would have no impact related to population and housing.
- **Public Services**: The proposed project would not contribute to increased demands for public services, as it would not include any specific land development, would not increase the allowable land-use intensity within the County, and would not increase growth projections for the County. The proposed project would have no impact related to public services.
- **Recreation**: The proposed project would not contribute to increased demands for recreation facilities as it would not include any specific land development, would not increase the

allowable land-use intensity within the County, and would not increase growth projections for the County. The proposed project would have no impact related to recreation.

- **Transportation and Traffic**: The proposed project would not include any specific land development, would not increase the allowable land-use intensity within the County, and would not increase growth projections for the County. The proposed project would have no impact related to transportation and traffic.
- **Utilities and Service Systems**: The proposed project would not contribute to increased demands for utilities and service systems as it would not include any specific land development, would not increase the allowable land-use intensity within the County, and would not increase growth projections for the County. The proposed project would have no impact related to utilities and service systems.

All remaining potential effects are evaluated in this EIR.

11.2 SIGNIFICANT AND UNAVOIDABLE ENVIRONMENTAL IMPACTS

A summary of the potentially significant and significant impacts of the proposed project, the applicable mitigation measures, and the residual level of impact significance is provided in Chapter 1, Executive Summary. The significant and unavoidable impacts are listed below:

Impact LU-2 Substantially alter or degrade the existing land use character of the County

Impact BIO-1 Result in the loss and fragmentation of wildlife habitat

Impact BIO-2 Have a substantial adverse effect on special-status species

Impact BIO-3 Have a substantial adverse effect on wildlife movement

Impact BIO-4 Result in the removal, degradation, and fragmentation of sensitive habitats

Impact FOR-1 Result in the loss of forest land or conversion of forest land to non-forest use.

Impact FOR-2 Conversion of forest land to non-forest use.

Impact GHG-1 Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment

Impact VIS-2 Substantially degrade the existing visual character or quality of the local area or region

11.3 SIGNIFICANT AND IRREVERSIBLE ENVIRONMENTAL CHANGES

The CEQA Guidelines (14 California Code of Regulations (CCR) 15000 et seq.) mandate that an EIR address any significant, irreversible environmental changes that would be involved in the proposed action should it be implemented (14 CCR 15126(c)). An impact would fall into this category if:

- The project would involve a large commitment of nonrenewable resources.
- The primary and secondary impacts of the project would generally commit future generations of people to similar uses.
- The project involves uses in which irreversible damage could result from any potential environmental incidents associated with the project.
- The proposed consumption of resources is not justified (e.g., the project results in wasteful use of energy).

Determining whether the proposed project may result in significant irreversible changes requires a determination of whether key resources would be degraded or destroyed in such a way that there would be little possibility of restoring them.

The proposed project would involve revising biological resource objectives, policies, and implementation measures included in the Conservation and Open Space Element of the County's 2004 General Plan, and adopting an ORMP that revises and updates the 2008 Oak Woodlands Management Plan. None of these changes would directly result in significant and irreversible environmental effects. The proposed project would not alter the land use or zoning designations for any property, and no specific development is proposed.

11.4 GROWTH INDUCEMENT

CEQA requires a discussion of ways in which a project could induce growth in the project area. The CEQA Guidelines identify a project as growth-inducing if it fosters economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment (14 CCR 15126.2(d)). New employees from commercial or industrial development and new population from residential development represent direct forms of growth. These direct forms of growth have a secondary effect of expanding the size of local markets and inducing additional economic activity in the area. A project could indirectly induce growth by reducing or removing barriers to growth or by creating a condition that attracts additional population or new economic activity.

The proposed project would involve revising specific General Plan objectives, policies, and implementation measures and adopting an ORMP and Oak Resources Conservation Ordinance. The policy changes and ORMP would clarify and refine the intent of the policies, and define specific mitigation requirements for impacts to oak woodlands. These changes would not induce growth, but would provide more specificity for future development within the County. The proposed project would not alter land use or zoning designations for any property, and no specific development is proposed. Further, the proposed project would not alter employment or housing growth projections for the County, which are described in detail in Chapter 4, Methodology and Assumptions.

11.5 ENERGY CONSUMPTION

The proposed project would involve revising specific General Plan objectives, policies, and implementation measures and adopting an ORMP and Oak Resources Conservation Ordinance. These changes would not directly involve the use of energy or would not consume energy. The proposed project would not alter land use or zoning designations for any property, and no specific development is proposed. Further, the proposed project would not alter employment or housing growth projections for the County, which are described in detail in Chapter 4, Methodology and Assumptions. The proposed project would not affect the amount of energy consumption or energy-efficiency within the County.

11.6 CUMULATIVE IMPACTS

Section 15355 of the CEQA Guidelines defines cumulative impacts as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts" (14 CCR 15000 et seq.). Section 15130 of the CEQA Guidelines directs that the analysis of cumulative impacts in an EIR should consider whether related past, present, and reasonably foreseeable future developments may have impacts that could compound or interrelate with those of the proposed project under review. The analysis of cumulative impacts is necessary to determine whether the degree to which an individual project contributes to a cumulative impact is "cumulatively considerable."

The CEQA Guidelines provide that the discussion of cumulative impacts "need not provide as great detail as is provided for the effects attributable to the project alone. The discussion should be guided by standards of practicality and reasonableness." The discussion should also focus only on significant effects resulting from the project's incremental effects and the effects of other projects. According to Section 15130(a)(1), "An EIR should not discuss impacts which do not result in part from the project evaluated in the EIR."

In the context of the proposed General Plan Biological Resources Policy update, ORMP, and Oak Resources Conservation Ordinance, the impact analysis presented in chapters 5 through 9 of

this EIR considers the impacts from the past, present, and planned future developments in the County at the planning horizon years of 2025 and 2035. By its nature, the impact analysis throughout this EIR provides a cumulative impact analysis. However, in addition to buildout of the General Plan, this section of the EIR evaluates whether there would be increased cumulative impacts when reasonably foreseeable development projects are also considered. The County is currently considering applications for the approval of seven development projects proposed in the western portion of the county and in addition one project in the City of Folsom near the County boundary is also under review. The seven projects within the County are development projects that have been proposed but not yet approved. Because these projects would require General Plan Amendments, some impacts associated with each are not reflected in the analysis of impacts associated with General Plan buildout. Inclusion in this analysis does not imply that these General Plan Amendments will be approved by the County; however these projects are considered to be "reasonably foreseeable" under CEQA and therefore are appropriate to evaluate as part of the cumulative scenario.

Together, these major areas of proposed development are referred to in this EIR as the Cumulative Projects. The projects are summarized in Table 11-1 and their locations are shown in Figure 11-1.

Table 11-1
Cumulative Projects

Project Name	Project Description	Project Location
Central El Dorado Hills Specific Plan	Proposed Specific Plan consisting of a maximum of 1,000 dwelling units, 50,000 square foot of commercial development, 15 acres of public park and 169 acres of open space within a 342-acre project site. Entitlements include a General Plan Amendment, Specific Plan Amendment, Rezone, Planned Development, and Tentative Subdivision Map.	El Dorado Hills approximately 1/8 of a mile north of Highway 50. Encompasses properties on both sides of El Dorado Hills Boulevard.
Village of Marble Valley Specific Plan	Proposed Specific Plan consisting of a maximum of 3,236 dwelling units, 475,000 square foot of commercial development, 47 acres of public park and 169 acres of open space within a 2,342-acre project site. Entitlements include a General Plan Amendment, Rezone, Planned Development, and Revision to the approved Tentative Map.	The project is located ¼ mile south of Highway 50 in between the Community Regions of El Dorado Hills and Cameron Park.
Lime Rock Valley Specific Plan	Proposed Specific Plan consisting of a maximum of 800 dwelling units, 8 acres of public park, and 333 acres of open space within a 740-acre project site. Entitlements include a General Plan Amendment,	The project is located approximately 1 mile south of Highway 50 outside of the Cameron Park Community Region area.

Table 11-1
Cumulative Projects

Project Name	Project Description	Project Location
	Rezone, and Planned Development	
Dixon Ranch Tentative Subdivision Map	Proposed Tentative Subdivision Map of the 280-acre property to include a total of 605 single-family units with 84 acres of open space areas, and on-site park areas.	The project is located in the El Dorado Hills Community Region, 100 feet southeast the Green Valley Road/Malcolm Dixon Road intersection.
Saratoga Estates Tentative Subdivision Map	Proposed Tentative Subdivision Map creating a total of 316 residential lots and two public parks.	The project is located in the Community Region of El Dorado Hills, north of Highway 50, approximately 1-mile west of Saratoga Way.
Tilden Park	A Tentative Map and Development Plan for 14 single family residential lots, a hotel site, and office commercial development.	The project is located in Shingle Springs area, 500 feet west of the intersection of Crosswood Drive and Wild Chaparral Drive
Mill Creek	Proposed Tentative Subdivision Map consisting of 633 single family residential units and on-site open space areas.	The project is located in the Community Region of Shingle Springs, approximately 1-mile south along French Creek Road from its intersection with Mother Lode Drive.
Folsom South of Highway 50	Recently annexed to the City of Folsom, this 3,585-acre site is anticipated to be developed under the provisions of a Specific Plan. The site could support between 11,340 and 14,630 residential units, up to 305 acres of commercial/office development.	The site is located in the southern portion of the City of Folsom, adjacent to the western boundary of El Dorado County line, south of U.S. Hwy 50 and north of White Rock Road.

In addition to consideration of the cumulative impacts associated with buildout of the General Plan and the Cumulative Projects, this cumulative impacts section includes analysis of impacts to oak woodlands within the Sacramento and Sierra foothills region.

Land Use

The 2004 General Plan EIR and the TGPA-ZOU EIR concluded that significant and unavoidable cumulative impacts to land use would occur as a result of continued urbanization, particularly in western El Dorado County and the City of Folsom. It is expected that this could lead to the separation between the county and city becoming less distinct and possibly disappearing as the county and city merge together, resulting in a significant loss of community character.

The proposed project involves amendments to several General Plan objectives, policies, and implementation measures related to biological resources, adoption of the ORMP, and adoption of the Oak Resources Conservation ordinance. It does not propose any site-specific development activities. As discussed in Chapter 5, Land Use, the project would result in less-than-significant impacts related to conflicts with land use plans, policies, and regulations and creation of substantial incompatibilities between land uses.

As discussed in Chapter 4, Methodologies and Assumptions, buildout of the General Plan is expected to result in a substantial increase in the level of development found throughout the county compared to existing conditions. This development would degrade the existing land use character of the county in some areas. In particular, local community character could be degraded as ongoing development results in a loss of oak woodland habitat and other natural vegetation communities throughout the County. Specific to the County's western boundary near the City of Folsom, buildout of the General Plan is expected to affect natural vegetation communities on both the north and south sides of Highway 50, with impacts to oak woodlands occurring only on the north side of the highway, as shown in Figures 5-1 and 5-3. The proposed project would require that buildout of the General Plan occur in compliance with the proposed biological resources policies, ORMP, and its implementing ordinance, which would ensure that many of the impacts to oak resources are mitigated. However, the proposed policies, ORMP, and ordinance would not avoid the significant changes to land use and community character associated with buildout of the General Plan.

The Cumulative Projects—with the exception of the Central El Dorado Hills project, which is surrounded by existing development—considered together with buildout of the General Plan, would convert substantial portions of the county from undeveloped uses in rural areas to developed uses, creating suburban and urban areas that may conflict with more rural land uses and would contribute to the cumulative loss of rural character. When considered along with buildout of the General Plan, the Cumulative Projects within El Dorado County would affect an additional 2,294 acres of natural vegetation communities, including 1,457 additional acres of oak woodland. The Folsom South of Highway 50 project would affect an additional 3,634 acres of natural vegetation communities adjacent to the County's western boundary and adjacent to areas within the County that are anticipated to be developed by 2035. In the cumulative scenario, impacts to community character, particularly for the area near the County's western boundary and the region between the El Dorado Hills and Cameron Park community regions, would be significant. Consistent with the analysis in Chapter 4, buildout of the General Plan under the proposed biological resources policy update, ORMP, and Oak Resources Conservation Ordinance would substantially contribute to these impacts, and the impact would remain significant and unavoidable.

Biological Resources

The 2004 General Plan EIR concluded that buildout of the General Plan would lead to significant and unavoidable cumulative impacts to biological resources from habitat loss and fragmentation, including associated impacts on the populations of special-status species that rely on these habitats. The TGPA-ZOU EIR found that mitigation measures incorporated into that project would reduce impacts to biological resources from some land uses and development activities (such as infill development and hillside development) to less-than-significant levels, but that

other activities (such as potential ski areas and public utility service facilities) could result in significant and unavoidable impacts. The TGPA-ZOU EIR concluded that impacts to biological resources under buildout of the General Plan would be significant and unavoidable and would make a cumulatively considerable contribution to the significant cumulative impact.

As evaluated in Chapter 6, Biological Resources, buildout of the General Plan under the proposed project would also result in significant and unavoidable impacts to biological resources. Although the proposed project does not include any development activities and would not alter the land use or zoning designations or allowable development density and intensity of any property, development that occurs subject to the proposed General Plan policies, ORMP, and Oak Resources Conservation Ordinance would contribute to loss of habitat, habitat fragmentation, adverse effects on special-status wildlife and plant species, and loss of wildlife movement corridors. Table 6-14 in Chapter 6 identifies the projected amount of land cover types within the County that would be converted to developed land by 2035, indicating that a total of 21,109 acres of natural vegetation communities could be impacted through buildout of the General Plan. This would include 6,442 acres of oak woodland that could be impacted by buildout of projects that are not exempt from the ORMP. In addition the ORMP exemptions could allow for impacts to an additional 138,704 acres of oak woodland.

The Cumulative Projects would also convert additional natural vegetation communities within the County and the City of Folsom to developed land uses. It is expected that they could affect an additional 5,929 acres of natural vegetation communities, including 2,000 acres of oak woodland. For each of the Cumulative Projects, Table 11-2 indicates the acreage of new impact to each applicable land cover type. For some projects, the General Plan buildout projections already assume development on the project site or a portion of the site. The data in Table 11-2 reflects only the acreage that was not already assumed to be developed as part of General Plan buildout by the year 2035.

Table 11-2
Cumulative Projects Additional Land Cover Conversion

Land Cover Types	Acres Converted by Project								
	Central El Dorado Hills Specific Plan	*Village of Marble Valley Specific Plan*	*Lime Rock Valley Specific Plan*	*Dixon Ranch*	*Saratoga Estates*	*Tilden Park*	*Mill Creek*	*Folsom South of US Hwy 50*	*TOTAL*
Annual Grassland	93.05	235.06	9.35	18.36	0.0002	0	0.20	2,998.5	3,354.52
Blue-Oak Foothill Pine	0	369.38	80.24	0.18	0	0	0.78	0	450.58
Blue Oak Woodland	19.99	928.20	9.40	8.49	0	0	0.31	516.6	1,482.99

Table 11-2
Cumulative Projects Additional Land Cover Conversion

Land Cover Types	Acres Converted by Project								
	Central El Dorado Hills Specific Plan	*Village of Marble Valley Specific Plan*	*Lime Rock Valley Specific Plan*	*Dixon Ranch*	*Saratoga Estates*	*Tilden Park*	*Mill Creek*	*Folsom South of US Hwy 50*	*TOTAL*
Coastal Scrub	0	0	0	0	0	0	0	0.9	0.9
Fresh Emergent Wetland	0	0.94	0.86	1.98	0	0	0	9.4	13.18
Lacustrine	0	10.37	0.09	2.90	0	0	0	4.7	18.06
Mixed Chaparral	0	188.92	241.28		0	0	0		430.2
Montane Hardwood	0	0	0	0	0	0	0	26.1	26.1
Urban	6.87	0.80	3.79	6.69	0	0	0.003	75.0	93.153
Valley Foothill Riparian	12.90	0	2.67		0	0	0	2.9	18.47
Valley Oak Woodland	5.07	31.96	3.32	0	0	0	0.007	0	40.357
Totals	**137.88**	**1,765.63**	**351**	**38.6**	**0.0002**	**0**	**1.3**	**3,634.1**	**5,928.51**

In total, under the cumulative scenario 27,038 acres of natural vegetation communities, including 8,442 acres of oak woodland, could be converted to developed uses. When the ORMP exemptions are also considered, a total of 147,146 acres of oak woodland could be lost. Although mitigation for the loss and fragmentation of habitat, including sensitive habitats, and adverse effects on special-status species and wildlife movement would be required for projects within the County, the mitigation would not avoid or compensate for these impacts sufficiently to reduce the impacts to a less-than-significant level. The ORMP includes different mitigation ratios for different levels of on-site oak woodland retention and under the ORMP, mitigation would be required for the impacts to 7,899 acres of oak woodland impacts within the county (543 acres of woodland impacts in the cumulative scenario would occur within the City of Folsom). Table 11-3 identifies the range of on-site oak woodland retention and off-site oak woodland conservation that may occur as development proceeds in the cumulative scenario.

Table 11-3
Cumulative Scenario Oak Woodland Development Impacts and Mitigation

	50% or More On-Site Retention, 1:1 Conservation Ratio	25.1% to 49.9% On-Site Retention, 1.5:1 Conservation Ratio	25% or Less On-Site Retention, 2:1 Conservation Ratio
Amount Retained	3,950 or more	1,983 to 3,942	1,975 or less
Amount Conserved	3,950 or less	8,874 to 5,936	11,848 or more

Although mitigation would be required for development projects within the County, many project types would be exempt from the ORMP mitigation requirements. Up to 138,704 acres of woodland impacts could occur with no mitigation required. Thus the cumulative impacts to biological resources remain significant and unavoidable and the proposed project would result in a cumulatively considerable contribution to these impacts.

Forestry

As discussed in Chapter 7, Forestry, the oak woodland areas of the County covered under the ORMP do not meet the definition of timberland, and impacts to recreation and water quality values would be less than significant. However, oak woodlands do meet the definition of forest land and the loss of these woodlands with buildout of the General Plan under the proposed project would result in a significant loss of forest lands. The Cumulative Projects would affect land that includes oak woodlands and as these woodlands meet the definition of forest lands, the projects would convert forest land to non-forestry uses. In the cumulative scenario, impacts related to loss of forest resources would remain significant and unavoidable, and the proposed project would make a cumulatively considerable contribution to this impact.

Greenhouse Gases

As discussed in Chapter 8, Greenhouse Gases, oak woodlands provide for sequestration of substantial amounts of carbon. Conversion of oak woodlands to developed uses results in a one-time release of that sequestered carbon, which contributes to the total greenhouse gas (GHG) inventory in the region. As shown in Table 8-3, the loss of 6,442 acres of oak woodlands as a result of buildout of the General Plan through 2035 would result in the release of 944,691 metric tons of carbon dioxide equivalents (MT CO_2E). This assumes that no on-site retention of oak woodlands occurs as development proceeds. With varying levels of on-site retention possible, as discussed in Chapter 8, and averaged over the 19-year buildout timeline, the proposed project would result in between 26,727 and 49,705 MT CO_2E emissions annually from release of sequestered carbon to the atmosphere. This would substantially contribute to the regional GHG inventory and contribute to climate change effects.

With the addition of the Cumulative Projects, an additional 2,000 acres of oak woodlands could be impacted, resulting in a loss of 293,291 additional MT CO_2E emissions from release of sequestered carbon to the atmosphere. In addition, the Cumulative Projects would develop residential, commercial, and office land uses that would increase GHG emissions as a result of the additional vehicle traffic and increased energy consumption associated with these development projects. In the cumulative scenario, the GHG emissions associated with release of sequestered carbon as well as increased vehicle traffic would result in a significant and unavoidable impact, and the proposed project would make a cumulatively considerable contribution to this impact.

While the proposed project would result in significant GHG emissions, the project is considered consistent with applicable plans and policies adopted for the purpose of reducing GHG emissions. As discussed in Chapter 8, the proposed project would meet the recommendation of the California Air Resources Board Scoping Plan Update that local land use planning efforts "more fully integrate and emphasize land conservation and avoid conversion of croplands, forests, rangelands, and wetlands, as well as [emphasize] expansion and promotion of urban forestry, urban agriculture, and green infrastructure" (CARB 2014). The proposed project would establish a program to manage and mitigate impacts to biological resources, including through conservation. The program includes a focus on habitat connectivity and provisions to ensure the long-term viability of agricultural production and activities within the County. Thus, the proposed project is consistent with statewide and regional planning, policies, and regulations related to GHG emissions and climate change.

It cannot be determined whether the Cumulative Projects would be consistent with statewide and regional planning, policies, and regulations related to GHG emissions and climate change. This determination would be made based on the individual project design and incorporation of measures to reduce GHG emissions. When combined with other development project in the region, it is possible that a significant conflict with statewide and regional GHG planning and requirements could arise. However, as the proposed project would be consistent with statewide and regional GHG planning and requirements, the proposed project would not make a cumulatively considerable contribution to any significant cumulative impacts associated with consistency with statewide and regional planning, policies, and regulations related to GHG emissions and climate change.

Visual Resources

The 2004 General Plan EIR found that buildout of the General Plan could result in a significant and unavoidable cumulative impact due to reduced natural aesthetic qualities of the Highway 50 corridor. The TGPA-ZOU EIR found that development intensities could be increased in some

areas under certain provisions of the TGPA-ZOU, and that this would contribute to the potential degradation of existing visual character of the County.

The proposed project would result in a less than significant effect related to degradation of the quality of scenic vistas and scenic resources. As evaluated in Chapter 9, one of the county's identified scenic viewpoints, the scenic view of Marble Valley from Highway 50 westbound, could be impacted by the loss of oak woodlands associated with development through 2035. The impacts to the Marble Valley scenic view are expected to remain less than significant due to the level of viewer exposure and degree of expected visual change. All other listed scenic vistas and visual resources listed in Table 9-1 would not be expected to be affected by development under either the 2025 or 2035 buildout scenarios.

The Cumulative Projects would further contribute to the increased development intensity within the Highway 50 corridor and in rural areas of the County. As discussed previously, these projects would result in impacts to 5,929 acres of natural vegetation, including 2,000 acres of oak woodland within and adjacent to the county. Considered together with the Cumulative Projects, buildout of the General Plan under the proposed project would include additional urbanization on both sides of Highway 50 in the area of the City of Folsom and the community of El Dorado Hills. In particular, development of the Central El Dorado Hills Specific Plan, Folsom South of Highway 50 area, and the development anticipated under buildout of the General Plan on the both sides of Highway 50 in El Dorado Hills (as shown in Figure 5-3), would contribute to this effect. Further, development of the Marble Valley and Lime Rock Valley specific plans would intensify development in the area between El Dorado Hills and Cameron Park. These developments would result in a significant cumulative impact to views of the Sacramento Valley from the Camino Heights and Bass Lake Grade viewpoints on Highway 50 and to the visual character of the communities in this area. Although mitigation for visual impacts could be implemented in individual development projects, including the Cumulative Projects, due to the expansiveness of the scenic views and the extent of area within the viewshed that would be developed, the impact would remain significant and unavoidable. Buildout of the General Plan includes development in several areas adjacent to Highway 50 and stretching out to the south away from the highway. These development areas would make a significant and cumulatively considerable contribution to the impacts to these viewpoints.

In addition to impacts at specific viewpoints, buildout of the General Plan under the proposed project would result in a significant impact to the overall visual character throughout the County as a result of the conversion of oak woodlands and natural communities to developed uses. This would decrease the prevalence of natural habitat and resources and increase the presence of built-environment and ornamental landscaping elements. The Cumulative Projects would result in similar impacts by converting 5,929 acres of natural vegetation communities, including 2,000 acres of oak woodlands, to developed uses. Combined, buildout of the General Plan under the

proposed project and the Cumulative Projects would result in a significant and unavoidable cumulative impact to visual character. The proposed project would result in a significant and cumulatively considerable contribution to these impacts.

Regional Oak Woodland Cumulative Impacts

The Oak Woodland Conservation Act of 2004 was passed by the State legislature in recognition of the values that oak woodlands provide, such as support for wildlife species, temperature moderation, protection from soil erosion, facilitating nutrient cycling, and sustaining water quality, and the risks to oak woodlands from development, firewood harvesting, and agricultural activities.

The California Oaks Foundation conducted an inventory and threat assessment for all oak woodlands throughout California, noting that local planning efforts "must address the complexities of local, regional and statewide oak issues within the context of practical on-the-ground land use decisions" (California Oaks Foundation 2006). Dividing the state into six regions, the Oaks 2040 report identifies oak woodland resources in each county and the risk of losing those resources to land development. The analysis considers land ownership and "development risk" to determine the potential for loss of oak woodlands regionally and statewide. The development risk was based on US Census data that tracks past development by decade and predicts future development through 2040.

El Dorado County is within the Sacramento region, which also includes Butte, Colusa, Glenn, Lake, Napa, Nevada, Placer, Plumas, Sacramento, Sierra, Solano, Tehama, Yolo, and Yuba counties. Table 11-4 identifies the total oak woodland acreage in each county, based on the 2015 FRAP data.

Table 11-4
Sacramento Region Oak Woodland Inventory

County	Blue Oak Woodland (acres)	Blue Oak-Foothill Pine (acres)	Coastal Oak Woodland (acres)	Montane Hardwood (acres)	Montane Hardwood -Conifer (acres)	Valley Oak Woodland (acres)	Total (acres)
Butte	76,999	62,496	239	77,721	49,748	2,165	269,368
Colusa	87,403	28,472	37	14,689	3,619	1,603	135,824
El Dorado	46,631	64,823	2	98,930	32,643	3,970	246,999
Glenn	26,019	26,019	31	28,381	5,648	2,261	88,359
Lake	59,045	41,931	1,846	83,462	44,459	2,185	232,930
Napa	44,635	2,906	32,133	84,409	13	2,865	166,961
Nevada	40,364	32,532	90	54,994	25,156	1,445	154,582
Placer	25,843	23,469	0	101,080	48,456	4,070	202,917
Plumas	0	0	0	23,588	34,688	0	58,276
Sacramento	8,768	750	55	0	0	4	9,577
Sierra	5	0	45	17,346	11,650	0	29,046

Table 11-4
Sacramento Region Oak Woodland Inventory

County	Blue Oak Woodland (acres)	Blue Oak-Foothill Pine (acres)	Coastal Oak Woodland (acres)	Montane Hardwood (acres)	Montane Hardwood -Conifer (acres)	Valley Oak Woodland (acres)	Total (acres)
Solano	10,835	421	1,863	14,688	0	694	28,501
Tehama	293,016	166,572	300	90,138	18,957	7,207	576,189
Yolo	59,729	4,437	9	18,489	0	810	83,475
Yuba	42,323	25,987	74	20,926	12,121	1,241	102,671
Total:	**821,615**	**480,814**	**36,725**	**728,840**	**287,159**	**30,522**	**2,385,676**

Further, Oaks 2040 includes an estimate of the total number of oak trees greater than 1 inch diameter at breast height (dbh) and those greater than 5 inches dbh. Within the Sacramento region, there are an estimated 538.8 million trees greater than 1 inch dbh. Of those, it is estimated that 228.7 million are greater than 5 inches dbh (California Oaks Foundation 2006).

The Oaks 2040 report found that blue oak is California's dominant oak species by total acreage, representing more than one-third of the state's oak woodlands. Through the Sacramento and San Joaquin regions, this oak type occurs generally in the lower foothills of the western slope of the Sierra Nevada. Within El Dorado County, the lower foothills support the rapidly growing communities of El Dorado Hills and Cameron Park. Thus development pressures on blue oak woodlands in El Dorado County are high. According to the 2015 FRAP data, the portion of El Dorado County within the ORMP planning area contains an estimated 111,261 acres of blue oak-dominated woodland types, including 46,521 acres of blue oak woodland and 64,740 acres of blue oak-foothill pine.

More than one million acres of California's oak woodlands have already been developed and approximately 750,000 additional acres of California's oak woodlands are at risk of development before 2040 (California Oaks Foundation 2006). This represents approximately 20% of the statewide inventory; however development pressures on oak woodlands are not uniform throughout the state. Specifically, the analysis found that 80% of the woodlands that are at risk are within the Sacramento and San Joaquin regions, noting that the central valley and sierra foothills woodlands are particularly at risk for development. Additionally, climate change effects may reduce and shift the range of some types of oak woodlands (Gaman 2008).

It is expected that there will be a significant and unavoidable cumulative loss of oak woodlands statewide and particularly within the Sacramento Region identified in the Oaks 2040 report. As buildout of the General Plan under the proposed project could result in a loss of up to 6,442 acres of oak woodland due to development, and an additional 138,704 acres of oak woodland due to activities

that would be exempt from the provisions of the proposed ORMP. This would represent a significant and cumulatively considerable contribution to the cumulative loss of oak woodlands in the project region and statewide. However, it is expected that impacts to oak woodlands would be less under the proposed project than was projected in the Oaks 2040 report. The Oaks 2040 report concluded that "by 2040, 80% of El Dorado County's oak woodlands may be developed." In comparison, the analysis in this EIR finds that a total of 146,604 acres of oak woodlands within the County may be at risk, which represents 60% of the total inventory of oak woodlands within the ORMP area. Further, the ORMP requires mitigation in the form of conservation of existing oak woodlands, woodland restoration, and tree replanting. Implementation of the mitigation requirements in the ORMP would ensure that at least 7,900 acres of oak woodlands within the County are permanently protected under deed restrictions and conservation easements.

11.7 CAPITAL IMPROVEMENT PROGRAM DEVELOPMENT PROJECTIONS

The growth and development projections used for the analysis in this EIR are based on the County's historic development patterns, under which approximately 68% of development occurs within the County's Community Regions and 32% of development occurs outside those regions. The County is currently evaluating the Traffic Impacts Mitigation fees and Capital Improvement Program. As part of that analysis, the County is considering mechanisms that would further encourage development to occur within the Community Regions. The County has projected that these mechanisms could be effective at shifting the County's development patterns such that approximately 75% of development would occur within the Community Regions and 25% would occur outside those regions.

The impact analysis throughout this EIR is based on the County's historic development patterns, as those most closely represent the existing development patterns and trends. While the goal of increasing development within the Community Regions may be adopted as a part of updates to the Traffic Impacts Mitigation fees and Capital Improvement Program, no specific provisions that would lead to this change have yet been adopted. For informational purposes, this section discusses the potential effects that increased development in the Community Regions could have on the impacts and resources evaluated in this EIR.

Land Use

Shifting more development to the County's Community Regions would intensify the change in community character for those regions. It would result in a greater loss of natural vegetation and landforms and more dense development. This would also reduce development in the rural areas, leaving greater amounts of open space, natural vegetation, and natural landforms in those areas. It is expected that impacts to land use would remain significant and unavoidable throughout the

Community Regions and the increased urbanization in western El Dorado County would further contribute to the cumulative loss of community character associated with the city of Folsom and community of El Dorado Hills effectively merging together.

Biological Resources

Shifting development into the County's Community Regions would intensify the habitat loss and fragmentation in those areas while retaining greater amounts of habitat in the rural areas. It is expected that impacts to biological resources would remain significant and unavoidable, particularly within the Community Regions. While the impacts to specific habitat types may change – for example impacts to one habitat type may be slightly reduced while impacts to another habitat type may be slightly increased, the overall footprint of development and therefore the overall loss and fragmentation of habitat throughout the County would not substantially change under the Capital Improvement Program development projections. Table 11-5 compares the specific changes to land cover type impacts within the Community Regions under the historic development projects and under the Capital Improvement Program development projections.

Table 11-5
Land Cover Type Loss (acres)

Land Cover Type	Under Historic Projections	Under Capital Improvement Program Projections
Annual Grassland	12720.9	13553.0
Barren	0.5	0.5
Blue Oak Woodland	1934.4	2221.1
Blue Oak-Foothill Pine	2490.3	2803.2
Cropland	43.8	51.1
Deciduous Orchard	4.7	4.7
Evergreen Orchard	22.4	22.4
Fresh Emergent Wetland	206.2	274.8
Lacustrine	35.2	40.5
Mixed Chaparral	944.1	1024.1
Montane Hardwood	709.2	848.5
Montane Hardwood-Conifer	26.0	26.0
Ponderosa Pine	14.7	14.7
Sierran Mixed Conifer	2.9	2.9
Urban	4287.8	4762.7
Valley Foothill Riparian	281.7	300.3
Valley Oak Woodland	364.0	414.5
Total	**24088.7**	**26364.9**

Although mitigation for the loss and fragmentation of habitat, including sensitive habitats, and adverse effects on special-status species and wildlife movement would be required under either the historic projections or the Capital Improvement Program projections, the mitigation would not avoid or compensate for these impacts sufficiently to reduce the impacts to a less-than-significant level and impacts to biological resources would remain significant and unavoidable.

Forestry

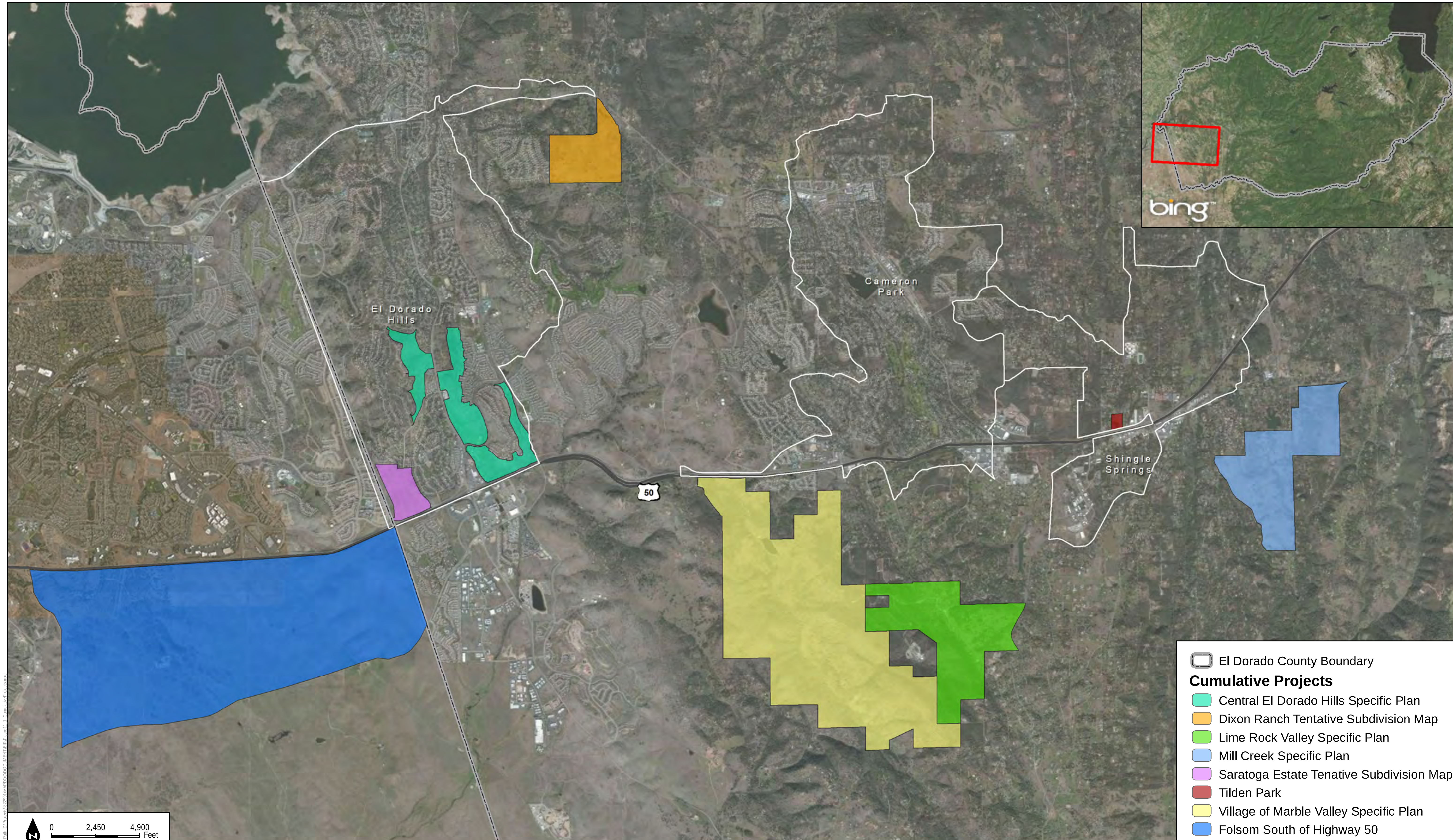
As discussed in Chapter 7, Forestry, the oak woodland areas of the County covered under the ORMP meet the definition of forest land, and impacts due to loss of oak woodlands would result in significant and unavoidable impacts to forestry resources. Impacts under the Capital Improvement Program projections would also be significant and unavoidable.

Greenhouse Gases

While development patterns would change slightly under the Capital Improvement Program projections, it is expected that a similar amount of oak woodlands would be affected as under the historic projections and thus the project's impacts associated with the release of sequestered carbon into the atmosphere would also be similar. It is noted that by concentrating development in the Community Regions, overall vehicle miles traveled within the County could be reduced, which would reduce GHG emissions from motor vehicle use.

Visual Resources

As discussed under Land Use, shifting more development to the County's Community Regions would intensify the change in visual character for those regions. It would result in a greater loss of natural vegetation and landforms and more dense development. This would also reduce development in the rural areas, leaving greater amounts of open space, natural vegetation, and natural landforms in those areas. It is expected that impacts to land use would remain significant and unavoidable throughout the Community Regions and the increased urbanization in western El Dorado County would further contribute to the cumulative loss of visual character associated with the city of Folsom and community of El Dorado Hills effectively merging together. No changes to the potential impacts to specific scenic views and viewpoints are expected under the Capital Improvement Program projections.



El Dorado Hills
Cameron Park
Shingle Springs
50
bing
El Dorado County Boundary
Cumulative Projects
Central El Dorado Hills Specific Plan
Dixon Ranch Tentative Subdivision Map
Lime Rock Valley Specific Plan
Mill Creek Specific Plan
Saratoga Estate Tenative Subdivision Map
Tilden Park
Village of Marble Valley Specific Plan
Folsom South of Highway 50
0
2,450
4,900
Feet

SOURCE: Bing Maps 2016; El Dorado County 2016

FIGURE 11-1

Cumulative Projects

DUDEK

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CHAPTER 12
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12.11 OTHER CEQA CONSIDERATIONS

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