

APPENDIX E

*Dudek Memos (and related Legistar
File 12-203 attachments)*

MEMORANDUM

To: Shawna Purvines, Principal Planner
El Dorado County

From: Cathy Spence-Wells, Principal

Subject: Draft General Plan Biological Policies Background

Date: May 1, 2014

Attachment(s): Appendix A, Referenced General Plan Policy Language

Summary/Purpose

This memo reviews the historical background and current status of the following General Plan policies and related Implementation Measures (see Appendix A):

- 7.4.2.8 (Develop and Implement the INRMP)
- 7.4.2.9 (Important Biological Corridor Overlay)
- 7.4.4.4 (Options A and B for Mitigating Impacts to Oak Woodland Habitat)
- 7.4.4.5 (Maintaining Continuity within Retained Portion of Oak Stands)
- 7.4.5.1 (Tree Survey, Preservation and Replacement Plan)
- 7.4.5.2 (Develop and Implement an Oak Tree Replacement Ordinance)
- 8.1.3.4 (Establish Threshold for Significance for Loss of Agricultural Land and Mitigation Ratio of 1:1).

Dudek has prepared this memo to document previous planning efforts, constraints, and issues that led to the current effort to update the policies. We identify and summarize key issues along the historical Biological Resource Policies development timeline. This includes considering how biological resources were addressed in both the 1996 General Plan and 2004 General Plan and the associated Environmental Impact Reports (EIRs), particularly the 2004 General Plan EIR's analysis of how application of the biological resources policies would mitigate impacts from General Plan implementation (County of El Dorado 2003, 2004). We also document the methods in which El Dorado County (the "County" hereafter) sought to implement the policies and define key challenges the County faces in interpreting and applying the policies.

Timeline

The following timeline presents key issues and Board of Supervisors (BOS) actions associated with the General Plan Policies, the Oak Woodland Management Plan (OWMP, County of El Dorado 2008), and the Integrated Natural Resources Management Plan (INRMP) between 1992 and 2012.

Year	Action
1992	BOS 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 totaling 3,450 acres (less than 10% of the total rare plant habitat). The plant preserve system 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).
1993	March: The BOS adopted four of the proposed rare plant preserve sites. Due to funding constraints, the BOS omitted the Cameron Park site from the preserve system and did not address County funding for the creation or management of the four preserve sites they did adopt.
1996	January 23: BOS adopts a comprehensive General Plan and certifies Plan EIR. February 26: Suit challenging the conditional approval of the General Plan and EIR certification.
1997	May: BOS approved an economic and feasibility study for the ecological preserve program. Subsequently the BOS adopted Ordinance No. 4500 and implementing fee resolution, whereby the County raises funds to acquire land from willing sellers to be included in the ecological preserves.
1998	March 28: The BOS amended the El Dorado County General Plan (General Plan Amendment No. A 97-09) to include the Cameron Park Ecological Preserve Unit.
1999	February 5: Writ of Mandate filed finding that County had violated the California Environmental Quality Act (CEQA) in adopting its General Plan in 1996. One of the issues was a change in the oak woodland canopy coverage policies, allowing replacement of lost habitat rather than requiring habitat retention in all cases. County directed to conduct reanalysis or supplemental analysis. The Writ also substantially limited the County's land use authority until the County adopted a new General Plan EIR (and until the new EIR was determined to be in compliance with the terms of the Writ, allowing for the Writ to be discharged).
2001	The BOS approved a Cooperative Management Agreement with BLM, California Department of Fish and Wildlife (CDFW), U.S. Fish and Wildlife Service (USFWS), California Department of Forestry and Fire Protection (CAL FIRE), El Dorado Irrigation District, the U.S. Bureau of Reclamation, and the American River Conservancy. The participants agreed to work together to prepare a management plan for the ecological preserve program. New Draft General Plan alternative developed and General Plan EIR process initiated with release of the Notice of Preparation.
2002	January: In support of the INRMP development, slightly more than 2,900 acres of rare plant habitat had been protected within the Pine Hill Ecological Preserve.
2003	April 9: Draft General Plan for El Dorado County released for public review.
	April 30: Draft EIR for the El Dorado County General Plan is released.
	Both the EIR and Draft General Plan were available for public review and comment through July 15.
2004	January 13: Final EIR for the El Dorado County General Plan released.
	February 18: California Public Resources Code (PRC) Section 21083.4 (Senate Bill 1334, Kuehl) enacted.
	July 19: BOS adopted the General Plan.
2005	September 1: Superior Court issued ruling on the 1999 General Plan Writ of Mandate finding that the County had complied with the Writ and discharging the Writ.

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Year	Action
2006	April 18: Settlement Agreement, which confirms that oak impacts may be addressed only through Option A of Policy 7.4.4.4, until the INRMP is adopted.
	September: Plant and Wildlife Technical Advisory Committee (PAWTAC) and INRMP Stakeholders Advisory Committee (ISAC) were convened to advise the Planning Commission and BOS on plant and wildlife issues, important habitats, and INRMP creation and implementation (County of El Dorado 2010a, 2010b).
	November 9: County adopted Interim Interpretive Guidelines for Policy 7.4.4.4 (Option A) and Interim Guidelines for Biological Resources Study and Important Habitat Mitigation Program.
2008	April 1: BOS adopted the INRMP Initial Inventory and Mapping, satisfying the requirements of General Plan Measure CO-M.
	May 6: BOS adopted the Oak Woodland Management Plan (OWMP).
	June 6: Lawsuit filed challenging approval of the OWMP.
	August 27: PAWTAC and ISAC begin meetings to provide input to staff on tasks and studies needed for Request for Proposal for INRMP (Policy 7.4.2.8) and Important Biological Corridors (IBC) (Policy 7.4.2.9).
2009	December 15: BOS approved a contract for the preparation of Phase I of the INRMP.
2010	February 2: On appeal of a Trial Court ruling to uphold the BOS action to adopt the OWMP, the Appellate Court over-ruled that decision, remanding the case back to Superior Court, with the direction to require the County to prepare an EIR for the OWMP.
	June 22: BOS adopted the Updated INRMP Initial Inventory and Mapping.
	October 25: BOS accepted the Indicator Species Report.
	December 7: BOS accepted the Wildlife Movement and Corridor Report.
2011	March 23: INRMP Options Report. The Development Services Department (DSD), PAWTAC, and ISAC requested further direction from the BOS before they recommend a course of action for Phase II of the INRMP. The DSD, PAWTAC, and ISAC outlined different options and their relative costs, advantages, and disadvantages for preparing Phase II of the INRMP (Trout and Maurer 2011).
2012	September 4: OWMP rescinded (Resolution 123-2012).
	September 11: OWMP implementing ordinance rescinded (Ord. No. 4892).
	September 20: General Plan Policy 7.4.4.4 Options Report. The DSD recommends that the BOS direct staff to prepare a Resolution of Intention to Amend 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 to clarify and refine the County's policies regarding oak tree protection and habitat preservation. The DSD also recommends that the BOS direct staff to prepare a Request for Proposal to retain a consultant to assist the County to prepare the policies and EIR.

1996 General Plan, EIR, and 1996 Lawsuit

In 1996, the El Dorado County BOS adopted a new general plan. The County’s certification of the 1996 General Plan EIR and adoption of the 1996 General Plan was challenged on the basis that the County had not fully complied with CEQA. The grounds in that challenge included the claim that the General Plan’s "canopy cover retention standards did not adequately address impacts to the oak woodland canopy" (*El Dorado County Taxpayers for Quality Growth v. El Dorado County Bd. of Supervisors*). In 1999, the Superior Court ruled that the 1996 General Plan EIR was deficient, which precluded the County from issuing discretionary approvals for residential subdivisions until another general plan was adopted. An exception was development of Specific Plans that included vested Development Agreements. In issuing the 1999 Writ of Mandate, the Superior Court found that there were several deficiencies in the General Plan EIR.

Relative to biological resources, the Writ of Mandate directed that the EIR should have evaluated a change made to the oak woodland protection policies, specifically the addition of the words “or replacement” to the policy that required retention of oak woodland canopy.

In response to the Writ of Mandate, the County determined that a new General Plan should be adopted and that environmental review of the General Plan would be completed.

2004 General Plan

In 2004, the County adopted an updated General Plan and EIR. The General Plan contains many policies to protect biological resources, including oak woodlands, sensitive habitats, and wildlife. However, the policies have been subject to varying interpretations, which makes it difficult to consistently apply the policies to development projects. The General Plan policies related to oak woodlands and the INRMP are discussed in more detail below.

In 2002, two reports were prepared that focused on the effectiveness of the 1996 General Plan policies in preserving and protecting oak woodland habitat. These studies concluded that implementation of the 1996 General Plan would have a significant effect on large areas of contiguous habitat composed primarily of oak woodland, principally through fragmentation, erosion of habitat quality, and wildlife migration capabilities. Further, development in the County that occurred prior to the adoption of the 1996 General Plan limited the effectiveness of General Plan policies to mitigate oak woodland habitat loss/fragmentation of oak woodlands. The studies identified that the 1996 General Plan policies were not effective in reducing impacts ([Greenwood and Saving 1999](#); [Saving and Greenwood 2002](#)) or protecting oak woodlands ([Harris and Kocher 2002](#)) and that General Plan mitigation measures were ineffective at mitigating oak woodland loss associated with urban development. The findings of these studies emphasize the difficulty of relying on 1996 General Plan policies to mitigate impacts on wildlife habitat in El Dorado County. Further, Saving and Greenwood (2002) addressed wildlife movement constraints resulting from habitat fragmentation, specifically identifying the cleaving of wildlife habitat into north and south patches, bisected by Highway 50, with constrained wildlife movement options between the two. Previous County consultant tasks were to identify wildlife species with north–south migration patterns that would be affected by implementation of the General Plan.

Oak Woodland-Related Policies: General Plan policies addressing protection of forest and woodland resources and native trees (oak woodlands and oak trees) include [Policies 7.4.4.4, 7.4.4.5, 7.4.5.1, and 7.4.5.2](#). The 2004 General Plan EIR identified the impact associated with the loss and fragmentation of wildlife habitat by residential and commercial development and identified measures to mitigate these impacts to oak woodlands. Mitigation Measure 5.12-1(f) revised General Plan Policy 7.4.4.4 and Mitigation Measure 5.12-1(g) revised General Plan

Policy 7.4.5.2 to address this impact. The revised Policy 7.4.4.4 identifies two oak woodland mitigation options for new development projects, including: (1) tree canopy retention and woodland habitat replacement, or (2) monetary contributions to the County's INRMP conservation fund to compensate for oak woodland impacts. The revised Policy 7.4.5.2 required the County to develop and implement an Oak Tree Preservation Ordinance to preserve native oak trees, where feasible. No revisions to Policies 7.4.4.5 and 7.4.5.1 were identified in the General Plan EIR. General Plan Implementation Measure [CO-P](#) requires the preparation of an OWMP to satisfy Policies 7.4.4.4 and 7.4.5.1 (however, Measure CO-P should reference Policy 7.4.5.2 rather than 7.4.5.1 as the former addresses the need for an Oak Tree Preservation Ordinance).

Integrated Natural Resources Management Plan and Important Biological Corridor-Related Policies: General Plan Policy 7.4.2.8 requires the County to prepare the INRMP within 5 years of General Plan adoption. The intent of the INRMP is to mitigate impacts from General Plan implementation on biological resources. The INRMP would include the following components: a habitat inventory, a habitat protection strategy, a mitigation assistance program, a habitat acquisition program, a habitat management program, and a habitat monitoring program. The purpose of the habitat inventory was to identify important habitat (i.e., habitats that support special-status species; aquatic environments including streams, rivers, and lakes; wetland and riparian habitat; habitat important for migratory deer herds; and large expanses of native vegetation). The purpose of the habitat protection strategy was “to conserve and restore contiguous blocks of important habitat to offset the effects of increased habitat loss and fragmentation elsewhere in the county.” The mitigation assistance program was intended to identify mitigation options (e.g., mitigation banks, lists of potential mitigation opportunities/willing sellers, and incentives for developers/land owners to acquire and manage components of the INRMP). The habitat acquisition, management, and monitoring programs were intended to establish and maintain a preserve system in the County, the overall purpose of which was to facilitate mitigation of projects approved by the County. The INRMP would also include provisions for public participation and would require development of a conservation fund to ensure adequate funding of INRMP-identified management actions.

General Plan Policy 7.4.2.9 requires that the County identify Important Biological Corridors (IBC). IBCs are areas in the County that include high wildlife habitat value, function, and connectivity. Provisions for lands that occur within the IBCs would be developed and would focus on promoting habitat value and include: increased minimum parcel sizes, higher oak and wetland/riparian retention and setback standards, lower grading permit thresholds, greater protection for rare plants, and other provisions that promote habitat connectivity and habitat value.

Previous planning efforts were focused on developing the INRMP as a regulatory plan that would identify conservation and mitigation priorities, thereby limiting land use options. Acquisition of lands under the INRMP would need to be acquired from willing sellers, as

identified in General Plan Policy 7.4.1.2. Further, IBCs are effectively a regulatory device, whereby land use options are limited within IBC boundaries. Concerns were raised in previous INRMP planning efforts that making the INRMP a regulatory plan would eliminate the willing seller concept, specifically, restricting land use options to a point where the only option would be to sell the land for conservation purposes. For purposes of making a recommendation to the BOS, the PAWTAC, ISAC, and planning staff have evaluated various options including developing the INRMP as a regional Habitat Conservation Plan (HCP) and/or Natural Communities Conservation Program (NCCP) Plan, as well as developing the INRMP as a guiding document to be used by the County to facilitate mitigation for County-approved projects ([Trout and Maurer 2011](#)).

Agricultural-Related Policies: General Plan Policy 8.1.3.4 requires the establishment of a threshold of significance for loss of agricultural land by the Agriculture Department and the Planning Department. This policy is connected to General Plan Policy 7.4.2.9 in that lands subject to the Agricultural District overlay or that are within the Agricultural Lands designation are not subject to the IBC provisions. Additionally, agricultural cultivation activities are exempt from oak mitigation requirements (Policy 7.4.4.4 and 7.4.5.1) and riparian setback requirements on agriculturally zoned lands that utilize best management practices (BMPs) (Policy 7.3.3.4). Development projects on agricultural lands that are not cultivation or actions related to Fire Safe Plans would be required to meet oak mitigation requirements, based on the current language in Policy 7.4.4.4. During public comment related to OWMP preparation, the agricultural community presented CAL FIRE's Fire and Resources Assessment Program (FRAP) analysis results documenting that agricultural development had not negatively impacted oak woodlands in the County, and in fact oak coverage in the County had increased over time.

2004 General Plan EIR

The 2004 General Plan EIR [identified](#) that there was no clear environmentally superior alternative among the four project alternatives that were evaluated at an equal level of detail as the proposed project (the equal-weight alternatives). Two of these equal-weight alternatives were the No Project Alternative and the 1996 General Plan Alternative. Each of these two alternatives assumed that the land use maps and designations as well as the policies from the 1996 General Plan would not change, but the No Project Alternative also assumed that all development in the County would be subject to the terms of the 1999 Writ of Mandate (which precluded the County from issuing discretionary approvals for residential subdivisions, excepting development within Specific Plans that included vested Development Agreements). Although differences in the environmental effects of the four equal-weight alternatives were not stark, the No Project Alternative was identified as the environmentally superior alternative among the equal-weight alternatives. The No Project Alternative included two policies providing some degree of protection for wildlife habitat, including Policy 7.1.2.1 (discourages development on slopes over

40%) and Policy 7.4.4.4 (provides oak canopy retention guidelines based on land use designation). Other policies in the No Project Alternative could reduce impacts on wildlife habitat but would not prevent or fully mitigate the effects and include Policies 7.1.2.2 (discretionary projects to maximize the retention of natural vegetation), 7.4.1.6 (comprehensive habitat restoration and/or offsite-mitigation plans for impacts on habitats of special-status plants and animals), 7.4.2.1 (to the extent feasible, critical fish and wildlife habitat will be protected), 7.4.4.3 (development clustering), 7.4.4.5 (oak tree corridor retention), and 7.4.5.1 (tree survey, preservation, and replacement plan requirements).

In certifying the 2004 General Plan EIR and adopting the General Plan, the BOS made findings regarding the benefits that the General Plan would provide for the County. A key theme in those findings was that the 2004 General Plan reflects the community's values and vision. For example, implementation of the General Plan was expected to provide for retaining the rural character of the area, allowing for ongoing economic development, protecting private property rights, and protecting environmental resources. Specific findings of project benefits in this regard include that it:

- Best supports the local economy by designating the greatest amount of land for development, and responds best to the needs of small landowners, business owners, and agriculturalists by recognizing their reliance on prior policies and planning efforts in making decisions regarding their use and acquisition of property in the County.
- Balances the protection of property rights and the need for economic development with strong commitments to environmental protection.
- Acknowledges landowner expectations arising from historic County land use planning.

Biological Resources: The EIR found that “there are more than 550,000 acres of land in the county that are held in state or federal public ownership and managed principally by state or federal agencies.” In contrast, there is a much higher proportion of privately-held lands in the western portion of the County and the EIR found that this area is “where the impacts of the General Plan and threats to biological diversity and sensitive biological resources are considered most serious. The impacts on biological resources are primarily the result of urbanization of the area, habitat fragmentation, water pollution, and conversion of natural land to agricultural uses.” The General Plan EIR categorized potential land development based on land use intensity, finding that the potential for significant impacts to biological resources was greater in areas of medium- and high-intensity land uses “because buildout of land under [the high-intensity] designations would likely result in 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.”

The EIR identified the amount of each major habitat type present in the county (Table 5.12-1), and identified which of the major habitat types are considered sensitive habitats. With respect to woodlands, the sensitive habitats are aspen (400 acres), montane riparian (700 acres), and valley oak woodland (3,300 acres). The EIR recognizes that other oak woodlands, while not considered sensitive habitats, are an important biological resource. The EIR also recognized that oak woodlands face increased pressures from land development, leading to reductions in woodland habitat statewide, noting that “recent studies suggest that oak and other hardwood habitats are indeed at risk in El Dorado County.” The EIR also found that because most of the development pressure in the County is expected to occur in the foothills near the U.S. 50 corridor, wildlife habitat below the 2,000-foot contour and closest to the highway corridor would be most affected, while habitat above the 4,000-foot contour would “generally not be significantly affected because little development is expected to occur in this region where the majority of land is under the jurisdiction of the U.S. Forest Service.”

Impacts to biological resources were mitigated with policies and programs, including the establishment of a “no-net-loss policy” and mitigation requirements for impacts to important habitats. The General Plan and EIR found that “protection of individual trees is less important for the preservation of wildlife habitat than the protection of larger blocks of habitat, which will be accomplished through other mitigation measures incorporated into the adopted General Plan.”

The EIR also discussed options for mitigating the loss of oak woodland and the typical considerations regarding feasibility of the various options (County of El Dorado 2003, 2004):

“Mitigating the loss of oak woodland can be problematic for local jurisdictions. Concerns about conserving the environmental value of oak woodland resources in the face of conversions to other land uses has led local planners to develop strategies to mitigate these effects. Many local conservation policies have attempted to mitigate the loss of oak woodland habitat resulting from conversion to urban or intensive agricultural land uses through tree planting. Many mitigation plans regularly call for tree planting on a replacement basis (1:1 to as high as 20:1) for trees lost (Standiford et al. 2002). However, because few monitoring studies of planted native oaks extend beyond 10 to 15 years, there have been few opportunities to assess how oak woodland habitats develop over time from areas planted, and whether this mitigation approach on overall habitat quality is effective. Standiford et al. (2002), using a modeling approach to evaluate blue oak plantation development, found that average blue oaks were still quite small and that canopy cover was relatively low 50 years after being planted, even with a fairly aggressive restoration effort.

Another factor local jurisdictions must consider is the high cost of tree planting as a mitigation strategy. In some cases, it may be more cost effective to use the mitigation funds to ensure that existing mature habitat is conserved (Standiford et al. 2002). Although it may take many decades to replace mature habitat that is lost to a particular project, tree planting is still an important conservation tool and should still be encouraged as part of an overall restoration strategy (Standiford et al. 2002). Effective mitigation at a landscape scale, however, typically requires a more diverse array of options, including preservation of mature stands to compensate for the impact of woodland conversion projects.”

2004 State Legislation

A separate but parallel process at the state level resulted in enactment of California Public Resources Code (PRC) Section [21083.4](#) (Senate Bill 1334, Kuehl) on February 18, 2004, after preparation of the 2004 General Plan EIR and prior to preparation of the County’s OWMP. As enacted, PRC 21083.4 requires counties to determine whether projects will result in a conversion of oak woodlands and identifies four mitigation options to mitigate the significant effect of oak woodland conversion. The four mitigation options include: (1) conservation (via easements), (2) tree planting (including maintenance and monitoring and not to exceed half of the mitigation effort), (3) monetary contribution to the Oak Woodlands Conservation Fund, or (4) other measures identified by the County. A county may allow implementation of one or more of these mitigation options. PRC 21083.4 also identifies projects/actions that are exempt from its requirements.

2006 Settlement Agreement

Following the County’s adoption of the 2004 General Plan and 2005 referendum on the plan, the Superior Court discharged the 1999 Writ of Mandate ruling that the County had satisfied all the terms. The Court’s ruling was appealed. In April 2006, the County and the petitioners in the lawsuit entered into a settlement agreement that resulted in the withdrawal of the appeal. The settlement agreement contained terms confirming that the County would not implement Option B (contribution to conservation fund) for impacts of development projects on oaks until the oak woodland portion of the INRMP was adopted, consistent with the language in Policy 7.4.4.4. This left only Option A (canopy retention standards) as mitigation for development impacts to oaks.

General Plan Implementation Efforts

In July 2006 County staff prepared a memo identifying [various issues](#) requiring clarification related to implementation of General Plan Policies 7.4.4.4 (Option A), 7.4.4.5, 7.4.5.1, and 7.4.5.2; identified several [key concepts for discussion](#); and suggested clarifications for Planning Commission consideration and direction. The following concepts were addressed:

- Providing clarification of issues associated with General Plan Policy 7.4.4.4 (Option A)
 - Confirm that Policy 7.4.4.4 tree retention requirements apply only to oak woodlands
 - Clarify professional qualifications for preparing various studies related to oak woodlands
 - Define “oak woodland”
 - Clarify exceptions to retention requirements
 - Clarify oak woodland replacement requirements (inch for inch, acorns, canopy area)
 - Establish a process to consider minor modifications to woodland retention/replacement requirements (establish a “reasonable use” process)
- Clarify the application of Policy 7.4.4.5 (corridor retention).

Following a review of suggested clarification language (inclusive of public input), final revised policy language was prepared (in [September 2006](#)) with the goal of establishing more detailed Interim Guidelines for Planning Commission approval. A [final version](#) of key concepts related to General Plan Policies 7.4.4.4 (Option A) and 7.4.4.5 was approved by the Planning Commission on September 14, 2006. The approved final key concepts clarify the intent of the application of Policy 7.4.4.4 and clarify related matters, including: the qualifications of professionals who can prepare biological resources studies and Important Habitat Plans, definitions of terms, exceptions to Policy 7.4.4.4, options for satisfying the 1:1 canopy mitigation and replacement requirements, reasonable use determinations applicable to replacement and retention of oak woodland canopy, and corridor retention language (Policy 7.4.4.5).

[Draft Interim Interpretive Guidelines](#) were prepared. These integrated the provisions of the final key concepts document as approved by the Planning Commission into a more detailed, comprehensive set of guidelines addressing other technical issues related to implementation of the policy (County of El Dorado 2006). The Interim Interpretive Guidelines do not include proposed actions or procedures requiring an amendment to the General Plan. In November 2006, the Planning Commission adopted the [Interim Interpretive Guidelines for El Dorado County General Plan Policy 7.4.4.4 \(Option A\)](#) (amended October 12, 2007). [Interim Guidelines for Biological Resources Study and Important Habitat Mitigation Program](#) were also adopted at this time.

As mentioned, an OWMP was required to satisfy Policies 7.4.4.4 and 7.4.5.2, as identified in Implementation Measure CO-P. The development process and OWMP content is described in greater detail below.

Oak Woodland Management Plan (OWMP)

As required under Implementation Measure CO-P in the County’s 2004 General Plan, an [Oak Woodland Management Plan](#) (OWMP) was prepared and adopted by the BOS on May 6, 2008. Preparation of the OWMP occurred between October 2006 and May 2008, with multiple revisions, and included comments and recommendations provided by the public, stakeholders, and the OWMP TAC. The OWMP outlined the County’s strategy for conservation of valuable oak woodland resources, identified areas where conservation easements may be acquired to offset and mitigate for the loss or fragmentation of oak woodlands, and provided guidance for voluntary conservation and management efforts by landowners and land managers. The OWMP, which encompasses oak woodland habitats below 4,000 feet elevation, also constitutes the oak portion of the INRMP and identifies specific oak woodland conservation areas and methods for the County to implement an oak woodland ordinance. The OWMP did not include an Oak Tree Preservation Ordinance, as required under Implementation Measure CO-P.

As noted, preparation of the OWMP included public and stakeholder involvement, as well as input and guidance from the OWMP TAC. Additionally, the County engaged a consulting firm (EN2 Resources/Pacific Municipal Consultants [\$442,981 fee]) to prepare the OWMP. Preparation of the OWMP involved numerous workshops and hearings to address the issues brought forth by these groups. The following table summarizes key milestones of the OWMP development process and the items or issues brought to the Board.

Date	OWMP Issue Presented to the Board
September 1, 2006	Courtesy Notice of Public Hearing Regarding the Oak Woodland Management Plan Contract: notification of public hearing (to occur on September 19, 2006) where the Board would consider engaging EN2 Resources/Pacific Municipal Consultants to prepare the OWMP and related work products.
September 19, 2006	Board approves engaging consultant to prepare OWMP and related work products. Approved consultant fee is \$346,981. Staff to provide the Board with bi-weekly progress reports.
June 25, 2007	Board approves initial El Dorado County Oak Woodland Habitat map identifying oak woodland habitat where willing landowners could be approached to negotiate sale or easement acquisition through General Plan Policy 7.4.4.4 Option B funds. Board also releases of the draft OWMP for review and comment (minutes).
September 25, 2007	Board directs staff to bring back to the Board the original map (presented June 25, 2007) outlining the Low Density Residential (LDR) land use designation areas and to bring back a fee schedule that more clearly delineates the various components, particularly, the costs relating to ongoing management (minutes).
October 2, 2007	Board continues discussion but directs staff to work with the current plan submitted this date and make revisions utilizing the exhibits as discussed (minutes).

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Date	OWMP Issue Presented to the Board
October 30, 2007	Revised OWMP presented to Board. Board approved the OWMP and directed staff to prepare and circulate a Negative Declaration. Board considered conditioning projects requiring oak mitigation to offer either Option A and or Option B, provided that Option B procedures have been approved by the Board and the fee resolution is in effect at the time of use, with the caveat that the Board have options with regard to fees and development of policies pertaining to the amount of the conservation fund fee, ratio of fee in-lieu of on-site replacement, and agriculture cultivation or operations (minutes).
January 29, 2008	Board meeting following Agricultural Commission, Planning Commission, and public review of the Draft OWMP. Staff identified the volume of public comments and summarized issues with the Draft OWMP (minutes): <ul style="list-style-type: none">• Amount of conservation in-lieu fee• Optional payment into conservation fund in-lieu fee of on-site replacement under Option A• Definition of "Agricultural Cultivation"• Measurement of oak woodland (canopy vs. habitat)• Application of OWMP to defensible space requirements• Thresholds for road projects• Interim application of Option B fee payment for projects underway.
April 1, 2008	Economic analysis (dated March 28, 2008) presented to the Board. Revised in-lieu fee presented.
May 6, 2008	Board adopts Final OWMP, Ordinance 4471 , and the project's Initial Study/Negative Declaration (IS/ND).

As noted, several workshops were held so that the public, 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. Notable issues identified during the development of the OWMP and discussed in public hearings, workshops, or presented by the OWMP TAC include:

- Lack of clarity of OWMP goals
- Extent of OWMP study area and inclusion/exclusion of different oak habitats (e.g., blue oak woodlands)
- Agricultural cultivation and fire safe plan exemptions
- Consistency with General Plan goals and state-level requirements (Kuehl bill)
- Determination of in-lieu fee amount for Option B (Policy 7.4.4.4)
- Determination of metric to measure oak woodlands (canopy coverage vs. habitat extent)
- Location of Priority Conservation Areas (PCA) in lower-density areas of the County, thus allowing fragmentation and wildlife corridor conflicts at Highway 50.

Mitigation for impacts to oak woodland habitats under Policy 7.4.4.4 requires selection of one of two options: Option A or Option B. The OWMP provided further guidance on the Option A

mitigation strategy in General Plan Policy 7.4.4.4 and identified the per-acre in-lieu conservation fee associated with Option B. Option A requires oak canopy retention and provides retention standards based on existing baseline canopy coverage for a site. Additionally, Option A requires replacement of oak woodland habitat at a 1:1 ratio.

The Option B mitigation strategy of Policy 7.4.4.4 did not require the retention of a minimum percentage of oak canopy on site but was intended to preserve existing oak woodland canopy in the County of equal or greater biological value as those lost. Under Option B, a mitigation fee payment was required to compensate for both habitat loss and fragmentation, and the preservation mitigation ratio was set at 2:1 based on the acreage of oak canopy affected. In other words, for each acre of oak canopy that is lost, the payment is the fee per acre multiplied by two. The mitigation fee payment was to be applied toward the County's INRMP conservation fund (as described in Policy 7.4.2.8 and further discussed below). Mitigation fee payments were to be used for purchase of woodland conservation easements in PCAs.

As discussed below, the County's INRMP (as identified in Policy 7.4.2.8) was to identify important habitat in the County and establish a program for habitat preservation and management. The OWMP was intended to constitute the oak portion of the INRMP. As the OWMP was prepared in advance of the INRMP (not yet completed), the in-lieu fee established in the OWMP for impacts to oak woodlands was intended to be consistent with a future conservation fund to be established under the INRMP.

The BOS recognized the importance of oak woodlands in the County and adopted the OWMP and its implementing ordinance (El Dorado County Code Chapter 17.73). The BOS stated its intent to mitigate for oak trees only, not habitat, and provided maximum flexibility in mitigation. The OWMP was subsequently challenged because oak advocates asserted that the Board's interpretation resulted in impacts not previously addressed in the General Plan EIR.

Oak Woodland Management Plan Lawsuit – 2008

On June 6, 2008, a [lawsuit](#) was filed challenging the County's approval of the OWMP and its implementing ordinance. The lawsuit argued that the County's actions in approving the OWMP and implementing ordinance do not ensure protection of oak woodlands and that impacts to oak woodland habitat and connectivity will not be mitigated. Approval of the OWMP and implementing ordinance was expected to allow the County to permit development projects using Option B of General Plan Policy 7.4.4.4 as it would have effectively adopted the oak woodland portion of the INRMP (Policy 7.4.2.8). The following points summarize the lawsuit's arguments:

- The County adopted a Negative Declaration despite evidence that the project (OWMP and implementing ordinance) could have significant cumulative effects on oak woodlands.

Memorandum

Subject: Draft General Plan Biological Policies Background

- The County did not adequately describe the environmental setting, namely the importance of oak woodland habitat along the Highway 50 corridor for wildlife corridors and habitat connectivity.
- The OWMP does not ensure habitat connectivity.
- The OWMP did not adequately describe the regulatory setting, specifically the General Plan policies related to oak woodlands.
- The OWMP does not ensure that oak woodland habitat impacts are fully mitigated and allows for off-site mitigation that does not retain similar biological value as required under the General Plan.
- The County tiered to the General Plan EIR as part of its Negative Declaration adoption even though the County's General Plan found future development impacts to be significant and that the OWMP and implementing ordinance are inconsistent with the mitigation analyzed in the General Plan EIR.
- The County deferred identification of important habitats/connectivity until after approval of the OWMP.
- The County did not consider an alternative approach that addressed oak woodland habitat value by using oak woodland habitat acreage as the measure of mitigation rather than oak canopy coverage.
- The OWMP does not meet the minimum standards for the INRMP (of which it functions as the oak component) and does not accommodate the Important Biological Corridor overlay.
- The OWMP identifies PCAs for oak woodland habitat conservation but does not identify any in areas of the County designated for development.

On February 2, 2010, the Trial Court ruled to uphold the BOS action to adopt the OWMP. On appeal, the Appellate Court over-ruled that decision, remanding the case back to Superior Court, with the direction to require the County to prepare an EIR for the OWMP. The OWMP was rescinded on September 4, 2012 (Resolution 123-2012), and its implementing ordinance was rescinded on September 11, 2012 (Ord. No. 4892).

As a result, Option A of Policy 7.4.4.4 is currently the only available option to mitigate impacts to oak woodlands in the County. The text of the OWMP adopted by the BOS in 2008 (rescinded in September 2012) can be found [here](#).

INRMP Process

The 2004 General Plan EIR introduced Policy 7.4.2.8, which requires the County to prepare the INRMP to mitigate impacts from General Plan implementation on biological resources,

particularly the impacts that would arise from loss of habitat and habitat fragmentation. The EIR found that “even when habitat protection is included as part of a particular project, those preservation efforts may have limited benefit to existing biological resources if the protected habitat is not connected in some way to habitat elsewhere in the county.” Thus, Policy 7.4.2.8 was recommended to “allow the County to develop an integrated approach to planning for habitat protection. By developing a countywide inventory of important habitats and an overall strategy for protecting those habitats, the County can ensure that its most sensitive and threatened biological resources are adequately protected in conjunction with continued development under the General Plan.” It is noted that the General Plan EIR found that even with preparation and implementation of the INRMP, implementation of the General Plan would result in significant and unavoidable impacts to biological resources due to habitat loss and fragmentation. The General Plan identifies the INRMP as a mechanism for reducing those impacts to the extent feasible.

As described in the March 23, 2011, staff report by DSD, the INRMP is intended to:

1. Implement General Plan Measure CO-M and Policy 7.4.2.8 to mitigate, to the extent economically and practically feasible, the impacts of wildlife habitat loss and fragmentation from development anticipated by the 2004 General Plan.
2. Provide a program by which development projects could address the cumulative impacts of development contemplated in the General Plan.
3. Minimize revisions to land use designations or other development limitations authorized under the adopted General Plan, except as provided in Policy 7.4.2.9 and Implementation Measure CO-N (Review and update the Important Biological Corridor, IBC, overlay designation).

The primary requirements for the INRMP, as envisioned in the General Plan, are to identify important habitat in the County and establish a program for effective habitat preservation and management. Specifically, Policy 7.4.2.8 identifies the following eight required components of the INRMP:

1. Habitat Inventory
2. Habitat Protection Strategy
3. Mitigation Assistance
4. Habitat Acquisition
5. Habitat Management
6. Habitat Monitoring

7. Public Participation

8. Funding

ISAC, PAWTAC and Sierra Ecosystem Associates

Beginning in September 2006, the County worked to implement Policy 7.4.2.8 by retaining consultants to conduct a public workshop process, preparing a work program for development of the INRMP, retaining consultants to prepare the INRMP, and convening two advisory committees—the ISAC and the PAWTAC. The purpose of the ISAC is 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. County staff also reviewed and updated the Initial Inventory based on newer and more accurate geographic information systems (GIS) layers, inventoried existing regulatory constraints related to important habitat, prepared a Protected Lands Map, and compared the Initial Inventory and Protected Lands maps with the County's Land Use designations. In 2008, the BOS directed that the boundary of the Study Area for the INRMP was set at the 4,000-foot contour.

On April 1, 2008, the BOS adopted the INRMP Initial Inventory and Mapping, satisfying the requirements of General Plan Measure CO-M (the Habitat Inventory). At that time, DSD staff, the ISAC, and the PAWTAC requested direction from the BOS regarding goals and objectives for implementing Phase II of the INRMP (development of a habitat protection strategy and associated CEQA documentation). Phase II has not yet been implemented.

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, including:

- INRMP goals, purpose, and objectives, including how it could fully mitigate cumulative impacts for future development projects
- The level of CEQA review that would be necessary to support adoption of the INRMP
- The degree to which the INRMP should apply to ministerial (building permit) projects
- The ability of future developers to rely on the INRMP for demonstrating that project-specific impacts to biological resources have been avoided or mitigated, thus minimizing the need for project-specific EIRs
- Protection of wildlife migration corridors, locations for new wildlife crossings

- Ordinances, including riparian setbacks sufficient to protect wildlife use of riparian habitat
- Conformance of the IBC overlay to the INRMP mapping of important habitat and to the habitat preservation and management program
- How to structure mitigation fees to ensure they are commensurate with the level of impact, they account for indirect and cumulative impacts (in addition to direct impacts), and that that include incentives, dis-incentives, and other provisions for protection of important habitats
- Ordinances regarding fencing types in areas of important habitat and ordinances regarding limitations on types of activities in areas of important habitat
- Considerations for prioritizing habitat acquisition and whether to identify PCAs (for habitats other than oak woodlands) in the INRMP
- Whether to refine the mapping of large expanses of native vegetation by considering species-specific habitat requirements, which would then influence conservation strategies and potential mitigation
- Which strategies to implement in the Habitat Protection section, including ordinances, land use regulations, payment for ecosystem services (for example, offering conservation payments to agricultural land owners to encourage best management practices), stewardship training and education programs, acquisition of conservation easements or land in fee title, habitat prioritization, Williamson Act, and/or consideration of wildlife movement for road and construction projects
- Which mitigation options to employ and how to define when each should be used, including avoidance, minimization, restoration, and compensation (such as through fee-title acquisition of undeveloped land or conservation easement acquisition, mitigation banks, and in-lieu fees)
- Approaches to and options for habitat acquisition, habitat management, and monitoring
- Consideration of how fee-title acquisition would function, whether the County would acquire and manage lands or work with other agencies and organizations to hold and manage land; consideration of ways to minimize costs
- Whether to prepare the INRMP with one of the following emphases: landscape permeability, restoration, corridor network, ecological preserve, or habitat-emphasized.

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). Links to the 2010 committee agendas,

minutes, and materials are found [here](#) and [here](#). Some of the discussion topics and technical information included:

- Definitions of key General Plan policy terms used in the INRMP – Native Vegetation, Important Habitats, and Large Expanses
- Guiding principles of the INRMP
- Habitats to be inventoried and mapped in the INRMP
- Indicator species and focal species
- North–south wildlife movement and migration corridors
- Mapping for PCAs, IBCs, open space, and several habitat types.

In 2010, the BOS adopted the Updated IMRMP Initial Inventory and Mapping and accepted both the Indicator Species Report and the Wildlife Movement and Corridor Report.

Current Biological Resources Policy Status

Identified Issues Regarding Oak Woodland Conservation: To date, implementation of the policies addressing protection of oak trees and oak woodlands has been difficult due to the following:

- The policies have been controversial and difficult to apply uniformly due to different interpretations of Policy language by various groups:
 - Landowners argue for the most limited interpretation and want flexibility on how to mitigate for any oaks (or habitat) lost.
 - Oak advocates argue for the broadest interpretation and for more stringent defined mitigation.
- Policy 7.4.4.4 is open to interpretation over its intent, specifically whether it intended to protect individual trees or oak woodland habitat (inclusive of the area surrounding the trees).
- Due to the [ruling](#) in the 2008 lawsuit challenging the County’s approval of the OWMP and its implementing ordinance, mitigation Option B (in-lieu fee payment for impacts to oak woodlands) is not currently a useable option.

Additionally, the ruling identified the following issues with the OWMP and associated policies that further complicate the protection of oak trees and oak woodlands in the County:

- The OWMP did not address importance of oak woodlands within the vicinity of the Highway 50 corridor for wildlife habitat connectivity.

- Identification of important habitats (wildlife and connectivity) was deferred until after approval of the OWMP.
- The OWMP used oak canopy extent as the standard for oak woodland measurement, rather than oak woodland area (inclusive of all gaps, etc.).
- The OWMP did not protect oak woodlands in the County; therefore, it was inconsistent with the General Plan policies intended to protect oak woodlands. Specifically, off-site mitigation did not contain the amount and similar biological value as required under the General Plan; therefore, the OWMP did not ensure habitat connectivity, especially adjacent to Highway 50.
- PCAs identified in the OWMP were far from where impacts would be realized and did not afford protection along the Highway 50 wildlife corridors.
- Conservation efforts identified in the OWMP were focused on valley oak preservation at the exclusion of other oak woodland types.
- The fee rate for Option B (Policy 7.4.4.4) identified in the OWMP was based on the rural/lowest value rather than on the higher value of lands in more developable areas.
- There is conflict in the language of the existing policies. For example, in Policy 7.4.4.4, mitigation is required for oak woodland impacts on lots less than 1 acre (with more than 10% canopy cover), but in Policy 7.4.5.2, a tree removal permit is not required for lots less than 1 acre (that cannot be further subdivided).

Identified Issues Regarding INRMP Process: As described in the September 20, 2012, DSD staff report, presented to the BOS on September 24, 2012, oak Policies 7.4.4.4 and 7.4.4.5 are closely linked with Policies 7.4.2.7 and 7.4.2.9:

- Policy 7.4.4.4 references Policy 7.4.2.8 and states that the County will not implement off-site protection of oaks until the oak portion of the INRMP is completed. Potential amendments to Policy 7.4.4.4 must be carefully considered, and the potential impacts under the revised text must be evaluated, which may require preparation of a new EIR.
- If an EIR is prepared for amendments to Policies 7.4.4.4 and 7.4.4.5 but Policies 7.4.2.8 and 7.4.2.9 are not amended, the County will still need to complete the work on the INRMP. Environmental review of the INRMP would also be required, which may necessitate a separate EIR.
- The County's approach to addressing impacts to oak woodlands, including important biological resources within or associated with oak woodlands, and the County's approach to addressing impacts to other important biological resources must be correlated with

each other. Any amendments to the oak-related policies (7.4.4.4 and 7.4.4.5) should also consider the influence of and effect on the INRMP policies (7.4.2.8 and 7.4.2.9).

- As required by the Court of Appeals, CEQA analysis for adoption of an OWMP would need to identify which oak woodlands are “important” biologically. In that context, Policy 7.4.2.9 must be considered, meaning that the value of oak woodlands as habitat and as wildlife corridors must be determined. This would expand the scope of the OWMP EIR to also address components of the INRMP.

Board Direction: On September 24, 2012, the BOS considered six options for the implementation of Policy 7.4.4.4. The [Options Memo](#) prepared by County staff provides a description of all the options considered. At the conclusion of the BOS hearing, the Board took action to implement Option 6 outlined in the staff report. Option 6 described the intent to amend General Plan Policies 7.4.4.4, 7.4.4.5, 7.4.5.1, 7.4.5.2, 7.4.2.8, and 7.4.2.9 and their related Implementation Measures. This action would require preparation of a separate EIR. Further, the Board directed staff to prepare a Request for Proposal to hire a consultant to assist the County to prepare the policies and EIR.

Per the staff report, this action “would enable the Board to clarify and refine the intent and scope of all of those policies, ensure the consistency of all the related biological policies, consider changes in state law, and finally harmonize the General Plan Policies. The EIR prepared for these amendments to the Policies could provide the analysis necessary to implement the Policies, so that no additional implementation process is necessary. At the conclusion of this EIR’s analysis, the mapping of the County’s important resources would be completed, and the Board could determine what conservation measures are necessary and feasible, and how the conservation should be funded.”

The report additionally clarified that “by focusing on only the biological policies and taking other policies and existing land use designations as a given, the Board can decide what resources are important, which important resources are at risk (as opposed to resources that already have protection as federal lands or through some other means), which important resources may be lost due to the land use designations, how to mitigate for those losses, and how to pay for that in a feasible way that does not conflict with other important goals and objectives of the 2004 General Plan.”

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Memorandum

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APPENDIX A

Referenced General Plan Policy Language

Appendix A

Referenced General Plan Policy Language

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.

Appendix A (Continued)

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 non-native 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 CNDDDB. 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.

Appendix A (Continued)

H. 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.

Appendix A (Continued)

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 7.4.4.4

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 base line 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

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.

Option B

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 woodland habitat. To

Appendix A (Continued)

compensate for fragmentation as well as habitat loss, the preservation mitigation ratio shall be 2:1 and based on the total woodland acreage onsite 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 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 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

Appendix A (Continued)

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 onsite 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 that is not exempt from the ordinance who damages or destroys an oak tree without first obtaining an oak tree

Appendix A (Continued)

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 8.1.3.4

A threshold of significance for loss of agricultural land shall be established by the Agriculture Department and the Planning Department, with opportunity for public comment before adoption, to be used in rezone applications requesting conversion of agricultural lands to non-agricultural lands, based on the California LESA system. For projects found to have a significant impact, mitigation shall include 1:1 replacement or conservation for loss of agricultural land in active production and/or 1:1 replacement or conservation for land identified as suitable for agricultural production. A monitoring program should be established to be overseen by the Agricultural Department.

MEMORANDUM

To: Shawna Purvines, Principal Planner, El Dorado County
From: Cathy Spence-Wells, Principal
Subject: Policy Options
Date: July 18, 2014
Attachment(s): Figures 1–3

1.0 INTRODUCTION

On September 24, 2012, the El Dorado County Board of Supervisors (BOS) took action to consider amendments to General Plan Policies 7.4.4.4, 7.4.4.5, 7.4.5.1, 7.4.5.2, 7.4.2.8, and 7.4.2.9 and their related Implementation Measures.

- 7.4.2.8 (Develop and Implement the Integrated Natural Resources Management Plan)
- 7.4.2.9 (Important Biological Corridor Overlay)
- 7.4.4.4 (Options A and B for Mitigating Impacts to Oak Woodland Habitat)
- 7.4.4.5 (Maintaining Continuity within Retained Portion of Oak Stands)
- 7.4.5.1 (Tree Survey, Preservation and Replacement Plan)
- 7.4.5.2 (Develop and Implement an Oak Tree Replacement Ordinance)

As discussed in the staff report prepared for the September 2012 BOS meeting, amending these policies “would enable the Board to clarify and refine the intent and scope of all of those policies, ensure the consistency of all the related biological policies, consider changes in state law, and finally harmonize the General Plan Policies” (BOS 2012a). The Environmental Impact Report (EIR) prepared for these amendments to the Policies would provide the analysis necessary to implement the Policies, so that no additional implementation process is necessary.

The staff report also clarified that “by focusing on only the biological policies and taking other policies and existing land use designations as a given, the Board can decide what resources are important, which important resources are at risk (as opposed to resources that already have protection as federal lands or through some other means), which important resources may be lost due to the land use designations, how to mitigate for those losses, and how to pay for that in a feasible way that does not conflict with other important goals and objectives of the 2004 General

Plan” (BOS 2012a). Based on the decision by the BOS to consider amending the aforementioned General Plan policies related to biological resources, this memorandum seeks to outline the broad policy approaches available to the County, while addressing the differences between resource conservation (which generally involves a comprehensive plan to identify areas to be preserved) and mitigation (which generally involves strategies to reduce impacts onsite, restore habitat either onsite or offsite, and may include preservation of offsite areas, although not in the context of a county-wide conservation program).

2.0 GENERAL PLAN OBJECTIVES AND ASSUMPTIONS

The process of evaluating potential amendments to the County’s biological resources policies must include consideration of the overall goals and objectives of the General Plan. The key framework concepts and objectives from the General Plan are briefly presented below. Following the concepts and objectives is a discussion of the Targeted General Plan Amendment and Comprehensive Zoning Ordinance Update (TGPA-ZOU) reflecting the Board’s direction with their 5-year General Plan review.

2.1 General Plan Concept Areas

The General Plan establishes planning concept areas (areas where growth will be directed as a means of providing for a more manageable land use pattern) 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 (County of El Dorado 2004).

2.2 General Plan Objectives

The General Plan identifies the following overarching objectives (County of El Dorado 2004):

1. To develop a strong diversified and sustainable local economy;
2. To foster a rural quality of life;
3. To sustain a quality environment;
4. To accommodate the County’s fair share of regional growth projections and affordable housing while encouraging those activities that comprise the basis for the County’s customs, culture, and economic stability;

5. To oversupply residential and non-residential land use designations in order to provide market and landowner flexibility to more feasibly accommodate the market;
6. To concentrate and direct urban growth where infrastructure is present and/or can be more feasibly provided;
7. To recognize that funding limitations for infrastructure and services will result in lower levels of service while the County improves employment and housing opportunities;
8. To conserve, protect, and manage the County's abundant natural resources for economic benefits now and for the future;
9. To encourage infill development that more efficiently utilizes existing infrastructure and minimizes land use conflicts while avoiding the premature development of non-contiguous lands where direct and life cycle costs are greater;
10. To accomplish the retention of permanent open space/natural areas on a project-by-project bases through clustering;
11. To minimize down planning and/or down zoning where feasible;
12. To improve the jobs-to-housing ratio by giving preference to the development of high technology and value added employment centers and regional retail and tourism uses.

The Conservation and Open Space Element identifies the following Goals and Objectives for biological resources (County of El Dorado 2004):

Goal 7.4: Identify, conserve, and manage wildlife, wildlife habitat, fisheries, and vegetation resources of significant biological, ecological, and recreational value.

Objective 7.4.2: Identification and protection, where feasible, of critical fish and wildlife habitat including deer winter, summer, and fawning ranges; deer migration routes; stream and river riparian habitat; lake shore habitat; fish spawning areas; wetlands; wildlife corridors; and diverse wildlife habitat.

Objective 7.4.4: Protect and conserve forest and woodland resources for their wildlife habitat, recreation, water production, domestic livestock grazing, production of a sustainable flow of wood products, and aesthetic values.

Objective 7.4.5: Protect and maintain native trees including oaks and landmark and heritage trees Protect and maintain native trees including oaks and landmark and heritage trees.

2.3 Targeted General Plan Amendment Objectives

The General Plan 5-year review was presented to the Board of Supervisors on April 4, 2011. That review concluded with the Board making findings that the County's General Plan is still within its growth projections and that basic General Plan Assumptions, Strategies, Concepts and Objectives are still valid, or have not changed so drastically as to require a comprehensive update. The review identified some land uses (i.e. Commercial, Industrial and Research and Development (R&D)) developing at a slower rate than forecasted, possibly creating a jobs/housing imbalance which may need to be corrected to ensure the vision of the General Plan is achieved.

The Board adopted a Resolution of Intent (ROI) (BOS 2011) to amend the General Plan to address changes in state laws, changes in the economy, changes in market demand, and to address an anticipated reduction in federal and state funding for roads and infrastructure to ensure growth in the County can be adequately accommodated.

The ROI went on to set the project objectives for a combined EIR on a TGPA-ZOU process to correct policies found to be constraining the development of housing affordable to the moderate or below income earner, the creation of jobs and tax revenues generating businesses, and policies affecting the agriculture and natural resource industries.

3.0 POTENTIAL BIOLOGICAL POLICY OPTIONS

Working with County staff, Dudek has developed four broad policy options for the BOS to consider. The potential concepts for each of the four options are provided below along with the possible public outreach and estimated timelines. In developing these options, Dudek has taken into account the information in the General Plan Policy 7.4.4.4 Options Report (BOS 2012b) presented to the BOS at the September 24, 2012, hearing and the BOS direction provided at that hearing, as well as local issues identified by County staff.

In order to address the County's need for a clear, feasible, and reasonable approach to managing biological resource impacts, the goal under each of the four options is to develop:

- Policies that are self-implementing and do not need further clarification, interpretation or policy determination.
- Policies that clearly define what resources are covered and the types of development activities affected by the policies.
- Mitigation options that are clearly defined.

- Policies that comply with State law and are defensible and effective.

The local issues facing El Dorado County that are driving the need for updating the County's biological resource policies include:

- Development focused along Highway 50 corridor.
 - Current policies, such as requiring onsite preservation, constrain the economic development opportunities in the County's key growth areas.
- Highway 50 corridor – habitat connectivity value.
 - The highway and surrounding development form a substantial barrier to wildlife movement.
- Stakeholder/public perceptions regarding data
 - There is a lack of consensus on the adequacy and interpretation of data collected to date.
- Integrated Natural Resources Management Plan (INRMP) and associated mitigation program difficult and costly to implement.
 - Preparation of the INRMP has required substantial commitments of time from County staff and stakeholders; County has considerable obligations for long-term implementation of the conservation strategy.
- Oak woodland and oak canopy language unclear in current policies.
 - Current oak-related policies use the terms 'woodland' and 'canopy' in defining impacts and required oak retention. These two terms have different meanings and represent different area measurements and therefore present confusion in interpreting and implementing oak mitigation requirements.
- Limited options and overlapping requirements for oak mitigation.
 - Currently-available oak woodland mitigation options are limited to canopy retention and woodland replacement (Policy 7.4.4.4 Option A). Payment of an in-lieu fee to mitigate oak woodland impacts (Policy 7.4.4.4 Option B) is not currently viable.
 - Currently, some projects may be required to separately mitigate impacts to oak woodlands and individual oak trees.

The four options presented below address potential approaches for revising the General Plan policies and outline the necessary actions to be completed by the County and project proponents. Additionally, the options present a discussion of anticipated public involvement as well as

estimated timeline and cost for implementation. Table 1 below summarizes the major differences between the identified options.

Table 1
Comparison of Biological Policy Options

Option	Oak Woodland Management Plan	Priority Conservation Areas	Important Biological Corridors	Integrated Natural Resources Management Plan	Self-Implementing Policies	Initial Relative Cost	Timeframe for Implementing	Long-term Relative Staff Time/Cost
1	No	No	No	No	No	Low	15 mo.	High
2	No	No	No	No	Yes	Medium	18 mo.	Medium-High
3	Yes	Yes	Yes	No	Yes	Medium-High	20-24 mo.	Low
4	Yes	Yes	Yes	Yes	Yes	High	36 mo.	Medium-High

3.1 Option 1: Compliance with State and Federal Regulations

Under Option 1, the BOS would revise General Plan Policies 7.4.4.4, 7.4.4.5, 7.4.5.1, 7.4.5.2, 7.4.2.8, and 7.4.2.9 and their related Implementation Measures (or portions thereof) to require compliance with Public Resources Code (PRC) 21083.4 (Senate Bill 1334 (Kuehl bill)¹) for impacts to oak woodlands, incorporate definitions of special-status biological resources and require compliance with state and federal requirements for evaluation and mitigation of impacts to biological resources. The associated EIR for the General Plan Amendment would analyze

¹ PRC Section 21083.4 (Senate Bill 1334, Kuehl) was enacted on February 18, 2004, after preparation of the 2004 General Plan EIR and prior to preparation of the County's Oak Woodland Management Plan. As enacted, PRC 21083.4 requires counties to determine whether projects will result in a conversion of oak woodlands and identifies four mitigation options to mitigate the significant effect of oak woodland conversion. The four mitigation options include: (1) conservation (via easements), (2) tree planting (including maintenance and monitoring and not to exceed half of the mitigation effort), (3) monetary contribution to the Oak Woodlands Conservation Fund, or (4) other measures identified by the County. A county may allow implementation of one or more of these mitigation options. PRC 21083.4 also identifies projects/actions that are exempt from its requirements. Exemptions include affordable housing projects (as defined in the statute) and actions on agricultural land used to produce products for commercial purposes, amongst others.

cumulative impacts to the identified special-status biological resources based on build-out of the General Plan.

Under this option individual project applicants would identify and implement measures to mitigate impacts to biological resources on a project-by-project basis. The County's role in mitigation would be to evaluate the adequacy of the proposed mitigation and to verify compliance with the mitigation measures identified for each project. Staff would rely primarily on state and federal regulations for analysis and mitigation for each individual project. The environmental review for individual projects under Option 1 would need to evaluate the project's proposed mitigation and determine whether additional mitigation would be necessary to meet the requirements of state and federal law. The environmental review would also need to evaluate and mitigate cumulative impacts (such as from habitat loss and fragmentation). While this analysis would tier from the General Plan Amendment EIR (which would analyze General Plan build-out), the environmental review for individual projects would need to provide more detailed analysis of each project's contribution to and mitigation for cumulative impacts. The General Plan policies would not provide substantial direction regarding project-specific and cumulative impacts and mitigation measures, necessitating detailed project-specific analysis in the environmental review for each individual project.

This option would comply with state and federal law and would provide defensible policies. However, this option would result in policies that would not be self-implementing. The lack of specificity in terms of analysis of impacts and identification of mitigation strategies would be challenging for staff to consistently apply, and this option does not address standards for individual oak tree impacts and mitigation. Finally, for oak woodland impacts, any mitigation fee payments (as identified in PRC 21083.4) would be submitted to a State-level fund, unless the County adopts an in-lieu fee program.

3.1.1 Public Outreach and Involvement

Dudek's recommended approach would include one public workshop to review the implications of revising these policies. This would entail explaining what the applicable state and federal requirements are, how the County would apply those requirements, and how the state and federal requirements would be implemented at the project level. Stakeholder advisory groups would not be necessary because the policies would be relying primarily on state and federal regulations identifying special-status resources and mitigation requirements.

All other public outreach would occur within the California Environmental Quality Act (CEQA) process – a scoping meeting for the EIR, public review of the Draft EIR including a

public meeting to receive comments on the Draft EIR, and a public hearing to consider certification of the EIR.

3.1.2 Timeline and Cost

This option could be implemented within 15 months, allowing for 3 months to prepare for and conduct one public workshop, and an additional 12 months to prepare and process the EIR. The initial costs associated with the policy update and the EIR for Option 1 would be lower compared to Options 2 through 4, as further studies would not be conducted in support of the policy amendments or the EIR. However, additional expenses would be incurred in funding County staff sufficient time to analyze each project on a case by case basis to assess conformance with the policies. This option may require additional funding for project applicants to develop project-specific strategies to conform to the policies and address cumulative impacts.

3.2 Option 2: Mitigation Approach

Under Option 2, the intent is to lay out clear requirements for mitigation of impacts to biological resources. The responsibility for undertaking the mitigation and for monitoring/ensuring the success of the selected mitigation actions would rest with the land owner or developer. The County's role would be to verify compliance with the requirements. The County would not develop a County-wide resource management strategy, and would not identify Priority Conservation Areas (PCAs) or Important Biological Corridors (IBCs). Under this option, General Plan Policies would be amended. The associated EIR would analyze cumulative impacts based on build-out of the General Plan.

A mitigation-based option for oak tree and woodland-related policies (Policies 7.4.5.1, 7.4.5.2, 7.4.4.4 and 7.4.4.5) would involve the following:

- The policies and implementation measures would be updated to omit the requirement for an Oak Woodland Management Plan (OWMP)
- Policies would be updated to create clear instructions for mitigating impacts to both oak woodlands and oak trees and likely an ordinance created to outline mitigation requirements
- Policies would be clarified to define the method of oak woodland measurement (woodland area or canopy cover area), which would be consistently used for impact calculations and mitigation area determination
- Mitigation options for oak woodland impacts would be consistent with PRC 21083.4 (Senate Bill 1334 (Kuehl bill)) and would include one or more of the following:
 - In-lieu fee payments to California's Oak Woodlands Conservation Fund

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- Tree planting on or off site (limited to a maximum of 50% of the required mitigation, per PRC 21083.4)
- Conservation easement placement over preserved areas
- Other mitigation measures developed by the County (which could include minimum onsite oak canopy retention standards)
- Mitigation options for oak tree impacts would include on or off site tree planting or on site retention/protection
- Mitigation options for loss of oak woodlands or individual trees would include a County-established in-lieu fee mitigation program
- Developer planting/monitoring/reporting would occur and County would be responsible for verifying compliance with mitigation

A mitigation-based option for special-status resources (Policies 7.4.2.8, and 7.4.2.9) would involve the following:

- Policies would be updated to reflect the County's General Plan EIR definitions of special-status vegetation communities and species
- Policies would create clear instructions for mitigating impacts and the County may create an ordinance outlining mitigation requirements specific to each category of special-status resources (e.g., vegetation communities, plants, wildlife)
- Policies would also be updated to require undercrossings for future 4- and 6-lane roadway projects and establish restrictions on barriers to wildlife movement

Under Option 2, environmental review for individual projects would be somewhat streamlined compared to Option 1 because the General Plan policies would provide specific direction and requirements for mitigation of an individual project's impacts. However, the General Plan policies would not define the County's approach to cumulative impacts and mitigation measures. Therefore, detailed project-specific analysis of the project's contribution to and mitigation for cumulative impacts would need to be included in the project's environmental review.

This option would comply with state and federal law and would also provide defensible policies. The policies would be self-implementing as the policies would define special-status biological resources, terms of impact analysis, and mitigation strategies. The policies would rely on State-level oak woodland mitigation standards (Senate Bill 1334 (Kuehl bill)) and would define what mitigation is necessary for individual tree impacts. The policies would clearly define what development activities and biological resources are covered by the policies.

This option would not develop a County-wide resource management plan (such as the INRMP). Evaluation and mitigation of cumulative impacts (such as from habitat loss and fragmentation) would tier from the analysis of General Plan build-out. In the absence of identifying priority mitigation areas, this option may result in more fragmented patches of restored or conserved habitat within the County and less uniformity between mitigation plans submitted to the County for approval. This would be inconsistent with General Plan Objective 7.4.2, which identifies protection of wildlife habitat and movement corridors. Unless the County re-establishes the in-lieu fee program, oak woodland mitigation fees collected within the County would be contributed to a state fund. This could result in fees being used to preserve woodlands outside of El Dorado County. If a County fund is established, the fees collected under that program could be used for oak woodland mitigation efforts in the County.

3.2.1 Public Outreach and Involvement

Dudek's recommends this approach would include at least two public workshops. At the first workshop, information would be presented regarding mitigation strategies and concepts and input solicited as to which strategies are appropriate for the community and meet the County's goals for resource management. The second workshop would be to present and solicit input on the draft policies. This would include discussion and specific examples of how the policies would be implemented at the project level.

Dudek also anticipates that this approach would include targeted outreach to stakeholder groups, such as conducting telephone interviews or small group meetings to provide focused discussions of the County's resource base and potential resource management and mitigation strategies. It is not expected that stakeholder advisory groups would be convened.

All other public outreach would occur within the CEQA process – a scoping meeting for the EIR, public review of the Draft EIR including a public meeting to receive comments on the Draft EIR, and a public hearing to consider certification of the EIR.

3.2.2 Timeline and Costs

This option could be implemented within approximately 18 months, allowing for 5-6 months to prepare for and conduct two public workshops, and an additional 12 months to prepare and process the EIR. The initial costs associated with policy update and the EIR for Option 2 would be higher than Option 1 as two public workshops would be held, and additional analysis (e.g., mitigation for oak trees) would be required in support of policy amendments and the EIR. The policies would be more detailed and specific in terms of the County's mitigation requirements, which could reduce the amount of staff time spent evaluating project proposals compared with

Option 1. Initial costs associated with Option 2 would be lower compared to Options 3 and 4, which identify additional technical studies and public outreach, but long-term implementation costs could be higher as more staff time would be needed to review each project's individual mitigation approach.

3.3 Option 3: Mitigation/Conservation Approach

Under Option 3, the intent is to amend policies to develop a program for County-wide management of impacts to biological resources and mitigation for those impacts. This option would build on mitigation strategies identified in Option 2 and would include preparation of the OWMP and resource management tools (such as the PCAs and IBCs). The plan and tools would comprise the County's resource management strategy. This option would lay out the requirements for analysis and mitigation of impacts, define the roles of project developers and the County in implementing mitigation, and prioritize mitigation opportunities.

The mitigation/conservation option would amend the oak tree and oak woodland policies (Policies 7.4.5.1, 7.4.5.2, 7.4.4.4 and 7.4.4.5). The revised policies would involve the following:

- The policies would be updated to retain and clarify requirements related to the OWMP and PCAs
- Policies would be updated to create a clear distinction (such as minimum woodland acreage or parcel size) between which projects would be subject to oak tree impact mitigation and which would be subject to oak woodland mitigation
- Policies would be clarified to define the method of oak woodland measurement (woodland area or canopy cover area), which would be consistently used for impact calculations and mitigation area determination
- Mitigation options for oak woodland impacts would be consistent with PRC 21083.4 (Senate Bill 1334 (Kuehl bill)) and would include one or more of the following:
 - In lieu fee payments to County conservation fund
 - Tree planting on or off site (only 50% of mitigation, per PRC 21083.4)
 - Conservation easement placement over preserved areas
 - Other mitigation measures developed by the County (which could include minimum onsite oak canopy retention standards)
- Mitigation options for oak tree impacts would include on or off site tree planting, on site retention/protection, or fee payments to the County conservation fund

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- Developer planting/monitoring/reporting may occur and the County would therefore be responsible for verifying compliance with mitigation
- County would be responsible for managing mitigation fees, acquiring/managing conservation lands or easements, allocating mitigation funds to a local land trust or conservancy for oak mitigation/preservation projects, or a combination thereof.

A mitigation/conservation option for special-status resources (Policies 7.4.2.8, and 7.4.2.9) would involve the following:

- The policies would be updated to omit the requirements for the INRMP as currently envisioned, but would retain and clarify the requirements for PCAs and IBCs
- Policies would be updated to reflect the County's General Plan EIR definition of special-status vegetation communities and species
- Policies would create clear instructions for mitigating impacts and the County may create an ordinance outlining mitigation requirements specific to each category of special-status resources (e.g., vegetation communities, plants, wildlife)
- Policies would also be updated to require undercrossings for future 4- and 6-lane roadway projects which can act as barriers to wildlife movement
- Implementation program would be established to provide mitigation assistance by maintaining a database of willing sellers within PCAs and IBCs
- Specific standards for IBCs would be established, such as minimum parcel size, contiguous areas, and minimum corridor widths

The environmental review for individual projects under Option 3 would rely on the General Plan policy requirements for project-specific mitigation measures and rely on the OWMP, PCAs, and IBCs to address cumulative impacts. The OWMP, PCAs, and IBCs would provide the data and tools necessary to support a detailed cumulative impacts analysis in the General Plan Amendment EIR. This would support a streamlined environmental review process for individual projects. Under this option, there may be cases where a project that is consistent with the General Plan and General Plan EIR would be exempt from further environmental review.

This option would comply with state and federal law and provide policies that are defensible. The policies would be self-implementing as they would define special-status biological resources, terms of impact analysis, and identify mitigation strategies. This would allow individual property owners to better understand the County's requirements under the comprehensive resource management strategy applicable to their properties. The policies would develop a County-wide resource management strategy, including the OWMP and the PCAs and

IBCs. These tools would facilitate the identification of mitigation opportunities for developers by allowing the County to maintain a database of willing sellers, and would allow the EIR for this policy update to address cumulative impacts from habitat loss and fragmentation in a more robust manner than relying on the General Plan build-out scenario. Under this option, the County has the ability to direct the management of conservation lands, whereas, under the INRMP, the County would potentially hold the land in fee title and bear the obligation to manage conservation lands in perpetuity.

For oak tree and oak woodland impacts, this option may not require oak woodland mitigation for small projects² and would allow oak woodland impact fees to stay within the County. Also, having an approved OWMP allows for oak conservation projects in the County (public or private) to access state-level Oak Woodland Conservation Program funding.

3.3.1 Public Outreach and Involvement

Dudek's recommendation would include three or four public workshops. Workshops may include a general discussion of the County's resources and mitigation strategies and concepts, including an evaluation of the information that was developed during Phase 1 of the INRMP. Other workshops may present focused discussions of the resources relevant to each of the OWMP, IBCs, and PCAs, and discussions of the draft policies.

It is also anticipated that this approach would include targeted outreach to stakeholder groups, such as conducting telephone interviews or small group meetings to provide focused discussions of the County's resource base and potential resource management and mitigation strategies. This approach may also include convening stakeholder advisory groups at strategic points to inform preparation of the OWMP and clarification and refinement of the PCAs and IBCs.

Additional public outreach would occur within the CEQA process – a scoping meeting for the EIR, public review of the Draft EIR including a public meeting to receive comments on the Draft EIR, and a public hearing to consider certification of the EIR.

3.3.2 Timeline and Costs

This option could be implemented within 20 to 24 months, allowing 10 to 12 months for the preparation of the OWMP and clarification and refinement of the PCA and IBCs as well as a public outreach process and an additional 10 to 12 months to prepare and process the EIR. The initial costs associated with the policy update and EIR for Option 3 would be higher than Options

² "Small projects" would need to be defined and may be based on lot size, oak woodland coverage, or other factors.

1 and 2 as three to four public workshops would be held, and additional analysis (e.g., preparation of the OWMP and clarification and refinement of the PCAs and IBCs) would be required in support of the policy amendments and EIR. Costs associated with the policy update and EIR under Option 3 would be lower compared to Option 4, which identifies additional technical studies and public outreach. With a comprehensive mitigation/conservation strategy in place, costs associated with staff time to review development proposals would be less than under Options 1 and 2, and about the same as under Option 4.

3.4 Option 4: Conservation Approach

The Conservation-focused approach would retain General Plan Policies 7.4.4.4, 7.4.4.5, 7.4.5.1, 7.4.5.2, 7.4.2.8, and 7.4.2.9 and keep their related Implementation Measures essentially as they are. This approach would allow the County to build from prior efforts and complete the OWMP and INRMP. It would establish impact mitigation fees that would account for direct, indirect, and cumulative impacts and provide incentives, dis-incentives, and other provisions for protection of important habitats. The County would bear the responsibility of owning land and/or holding easements for conservation areas, monitoring and adaptive management of those lands in perpetuity, management of an endowment and retain responsibility for monitoring and management activities regardless of the performance of the endowment. While this option may not require amending the General Plan policies, this option would still require a number of actions.

The conservation option may refine and clarify the oak tree and oak woodland policies (Policies 7.4.5.1, 7.4.5.2, 7.4.4.4 and 7.4.4.5). This option would include the following actions:

- Keep and update the OWMP and PCAs
- Policies updated for clarity and consistency
- The EIR for this conservation option would provide the analysis necessary to support implementation of Option B (Policy 7.4.4.4) under the previously-adopted OWMP
- Policies clarified to define method of oak woodland measurement (woodland area or canopy cover area), which would be consistently used for impact calculations and mitigation area determination
- Mitigation options for oak woodland impacts would include one or more of the following:
 - Oak canopy retention requirements
 - In lieu fee payments to County conservation fund
 - Tree planting on or off site (only 50% of mitigation, per PRC 21083.4)
 - Conservation easement placement over preserved areas

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- Mitigation options for oak tree impacts would include on or off site tree planting, on site retention/protection, and/or fee payments to the County conservation fund
- Developer planting/monitoring/reporting may occur and the County would therefore be responsible for verifying compliance with mitigation
- County would be responsible for managing mitigation fees and acquiring/managing conservation lands or easements
- Some projects may require both oak tree mitigation and oak woodland mitigation

A conservation option for special-status resources (Policies 7.4.2.8, and 7.4.2.9) would necessitate the following:

- Implement Phase 2 of the INRMP
- Refine and update the PCAs and IBCs
- County would be responsible for managing mitigation fees and acquiring/managing conservation lands or easements in perpetuity

Under Option 4, individual projects would implement the project-specific mitigation measures provided in the General Plan policies and demonstrate compliance with the OWMP, INRMP, PCAs, and IBCs to address cumulative impacts. The detailed cumulative impacts analysis in the General Plan Amendment EIR would support a streamlined environmental review process for individual projects. Under this option, there may be cases where a project that is consistent with the General Plan and General Plan EIR would be exempt from further environmental review.

This option would comply with state and federal law and provide policies that are defensible. The policies would be self-implementing as they would define special-status biological resources, establish terms of impact analysis, and identify mitigation strategies. The policies would develop a County-wide resource management strategy, including the OWMP and INRMP. These tools would facilitate the identification of mitigation opportunities for developers by allowing the County to maintain a database of willing sellers, and would allow the EIR for this policy update to address cumulative impacts from habitat loss and fragmentation in a more robust manner than relying on the General Plan build-out scenario. This option would complete Phase 2 of the INRMP.

The previous efforts to develop the INRMP were very lengthy and challenging. Under this option, the County has the obligation to manage and monitor conservation lands or easements in perpetuity, and managing the associated endowments. This would expose the County to liabilities associated with owning conservation lands in fee title.

For oak tree and oak woodland impacts, this option may result in multiple layers of oak mitigation for projects. Also, having an approved OWMP allows for oak conservation projects in the County (public or private) to access state-level Oak Woodland Conservation Program funding and oak woodland impact fees would stay within the County.

3.4.1 Public Outreach and Involvement

Dudek's recommendation would include at least three to four public workshops. Workshops may include a general discussion of the County's resources and mitigation strategies and concepts; focused discussions of the resources relevant to each of the key planning documents and in support of Phase 2 of the INRMP.

It is also anticipated that this approach would include targeted outreach to stakeholder groups, such as conducting telephone interviews or small group meetings to provide focused discussions of the County's resource base and potential resource management and mitigation strategies. This approach includes reconvening the Plant and Wildlife Technical Advisory Committee (PAWTAC) and INRMP Stakeholders Advisory Committee (ISAC) to inform preparation of the OWMP and INRMP Phase 2. Stakeholder advisory group meetings would extend the timeline and costs for this option.

Additional public outreach would occur within the CEQA process – a scoping meeting for the EIR, public review of the Draft EIR including a public meeting to receive comments on the Draft EIR, and a public hearing to consider certification of the EIR.

3.4.2 Timeline and Costs

This option could be implemented within approximately 36 months, allowing 24 months for the development of Phase 2 of the INRMP (potentially including convening stakeholder advisory groups), 6 months for the public outreach process (concurrent with INRMP Phase 2 development) and an additional 12 months to prepare and process the EIR. The initial costs associated with the EIR for Option 4 would be higher than Options 1, 2 and 3 as extensive stakeholder outreach would be conducted, and additional analysis (e.g., preparation of the OWMP and implementation of Phase 2 of the INRMP) would be required in support of the EIR. Costs associated with staff time to review development proposals would be less than under Options 1 and 2, and about the same as under Option 3. However significant additional staff time would be required under Option 4 to maintain and update the INRMP.

3.5 EXAMPLES OF DEVELOPMENT SCENARIOS FOR EACH OPTION

To demonstrate how each policy option may be implemented, Dudek prepared three potential development scenarios (Figures 1, 2, and 3). County staff provided a summary of typical development characteristics for moderate income residential, commercial, and industrial projects. Each development scenario reflects the information provided by County staff and is briefly described below. Typical mitigation considerations would be similar for each of the scenarios. A summary of mitigation considerations under each of the four policy options is provided in Table 2 at the end of this section to facilitate the Board's discussion of the broad policy options.

It is noted that each of the scenarios includes a limited amount of onsite preservation of oak canopy cover. The onsite preservation reflected in each scenario is not sufficient to meet the current policy (Option A) requirements, and therefore none of these scenarios are feasible currently. Should the policies be amended to reduce or omit onsite canopy retention requirements, the scenarios may become feasible. Alternatively, policy amendments that provide mitigation options (other than retention/replacement) may also make these scenarios feasible. Finally, these scenarios use oak canopy cover as the measurement tool for evaluating oak woodland impacts. As noted for Options 1 through 3, policies would be clarified to define the method of oak woodland measurement (woodland area or canopy cover area), which would then be used consistently for impact calculations and mitigation area determination.

Development Scenario 1: Infill/Moderate Income Housing

- **Site size:** 5.1 acres
- **Project type:** Multi-family (attached) housing
- **Lot coverage:** 1.2 acres of buildings (accommodating approximately 55 to 110 dwelling units with average size of 950 square feet), 1.3 acres parking (approximately 175 parking spaces)
- **Biological resources:** Southern portion of site supports oak woodland habitat, northern portion supports individual oak trees and has been previously disturbed. Oak woodland habitat continues to the southwest, intermixed with low-density residential development. This scenario would preserve a small area of oak woodland in the southern portion of the site; this area would be connected to adjacent similar habitat.
- **Oak canopy coverage:** Approximately 1.3 acres or 25%.
- **Approximate impacted oak canopy:** 0.5 acres.
- **Comment:** Under current policy (Option A), only 0.2 acres of oak canopy may be impacted for this scenario. Therefore, this scenario is currently infeasible for the site.

Development Scenario 2: Commercial

- **Site size:** 7.7 acres
- **Project type:** Commercial
- **Lot coverage:** 2.1 acres of building (90,000 square feet), 2.9 acres parking (approximately 400 parking spaces)
- **Biological resources:** Nearly the whole site supports oak woodlands with intermixed gray pines in the northern portion of the site. This scenario would preserve a small area of oak woodland in the northern portion of the site; this area would be connected to adjacent similar habitat.
- **Oak canopy coverage:** Approximately 6.5 acres or 84%.
- **Approximate impacted oak canopy:** 3.9 acres.
- **Comment:** Under current policy (Option A), only 2.6 acres of oak canopy may be impacted for this scenario. Therefore, this scenario is currently infeasible for the site.

Development Scenario 3: Industrial

- **Site size:** 3.4 acres
- **Project type:** Industrial
- **Lot coverage:** 1.2 acres of building (52,000 square feet), 0.9 acres parking/on-site circulation
- **Biological resources:** Southern portion of site supports isolated oak woodland habitat, northern portion supports chaparral with isolated oak trees and has been previously disturbed. This scenario would preserve a small area of oak woodland in the southern portion of the site; this area would be isolated from other similar habitat.
- **Oak canopy coverage:** Approximately 1.4 acres or 41%.
- **Approximate impacted oak canopy:** 0.9 acres.
- **Comment:** Under current policy (Option A), only 0.3 acres of oak canopy may be impacted for this scenario. Therefore, this scenario is currently infeasible for the site.



Potential Residential Site- 5.08 Acres
Residential Property
 Building - 1.20 Acres
 Parking Lot - 1.25 Acres

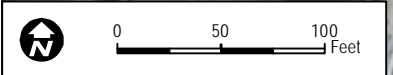
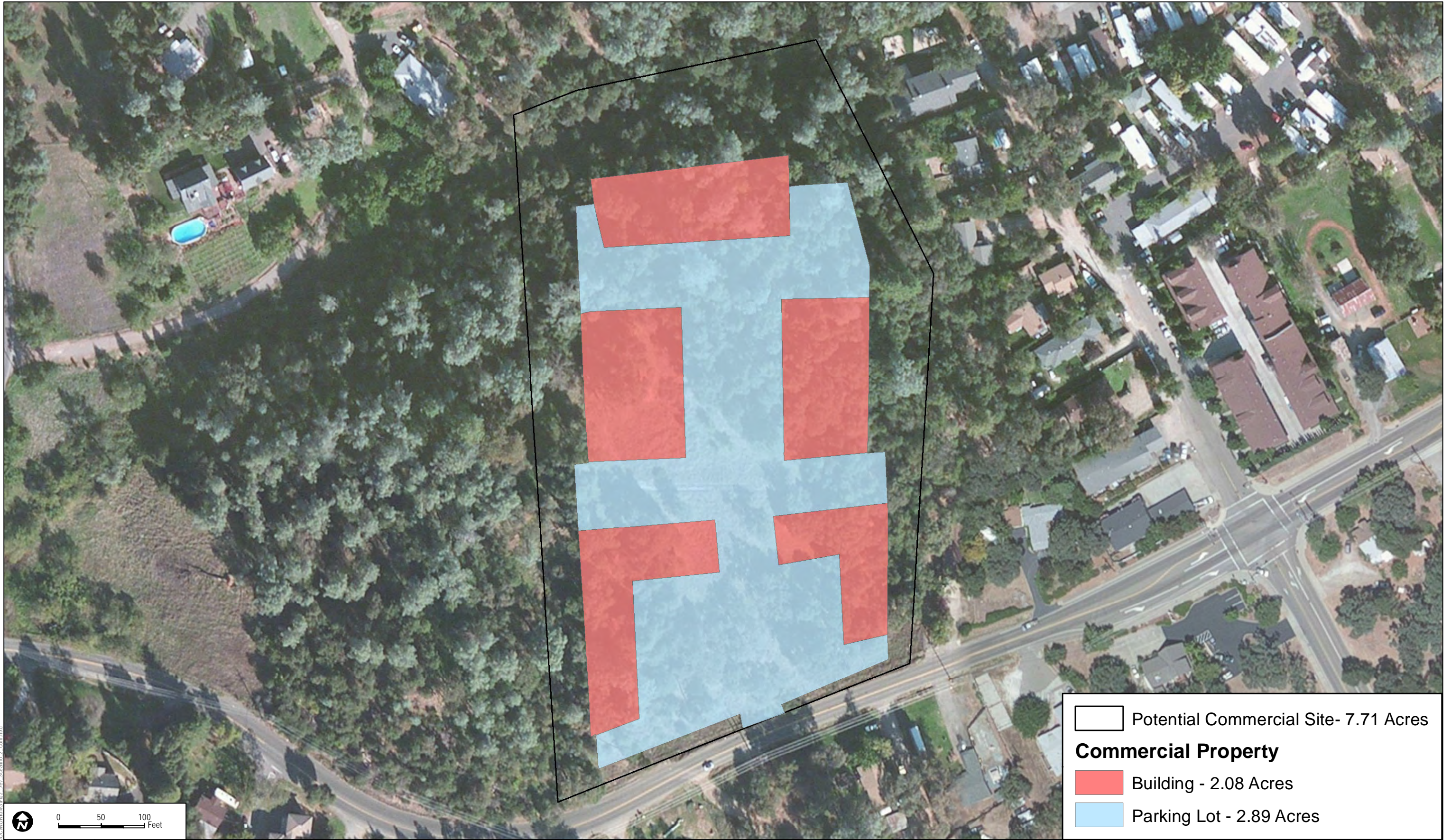


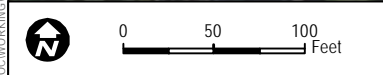
FIGURE 1
Development Scenario 1: Infill/Moderate Income Housing

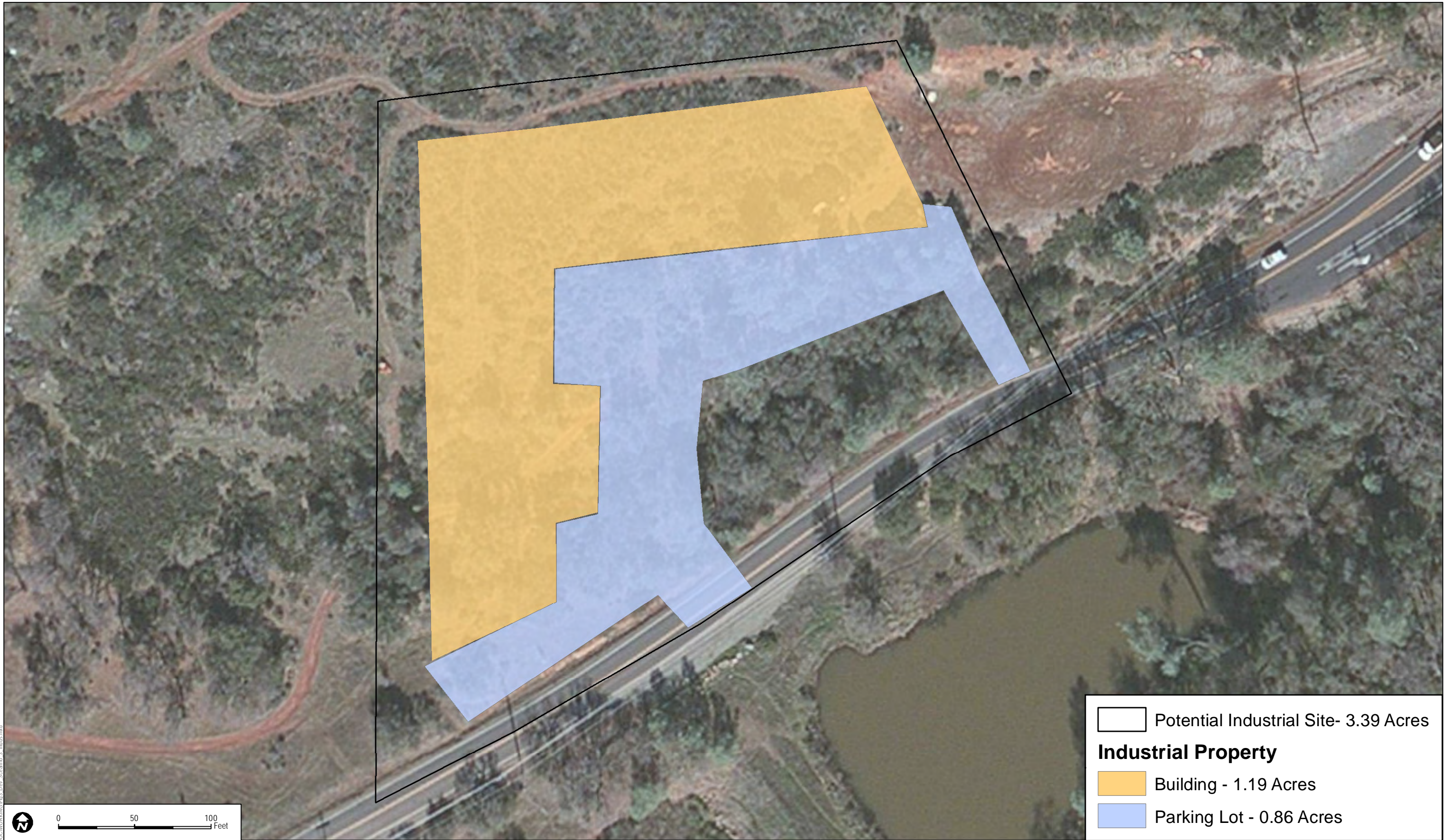
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


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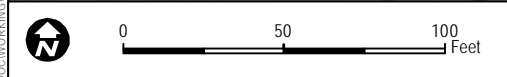


	Potential Commercial Site- 7.71 Acres
Commercial Property	
	Building - 2.08 Acres
	Parking Lot - 2.89 Acres





	Potential Industrial Site- 3.39 Acres
Industrial Property	
	Building - 1.19 Acres
	Parking Lot - 0.86 Acres



The following table summarizes the typical mitigation considerations for each of the four policy options.

Table 2
Typical Mitigation Considerations by Policy Option

Policy Option	Typical Mitigation Considerations
Option 1 (Compliance with State and Federal Regulations)	<ul style="list-style-type: none"> • Impacts to oak woodlands mitigated as required in PRC 21083.4 (Senate Bill 1334 (Kuehl bill)); no onsite canopy retention requirements – which would increase developable area for each scenario [note that the updated policies would include establishing the method for calculating mitigation requirements – whether based on oak woodland habitat or oak woodland canopy] • No mitigation for impacts to individual oak trees (outside of oak woodlands) • Mitigation for other biological resources would occur as required under any state or federal regulations and/or permits (this can be ambiguous in the absence of County-defined special-status biological resources and mitigation ratios) • Developer bears responsibility for all mitigation; County responsible for verifying compliance • Projects would result in additional fragmentation of the onsite and adjacent oak woodland • County must analyze cumulative impacts to biological resources for each project in the absence of a regional mitigation strategy
Option 2 (Mitigation Approach)	<ul style="list-style-type: none"> • At a minimum, impacts to oak woodlands mitigated as required in PRC 21083.4 (Senate Bill 1334 (Kuehl bill)); additional oak woodland mitigation would be required if County establishes oak woodland mitigation program [note that the updated policies would include establishing the method for calculating mitigation requirements – whether based on oak woodland habitat or oak woodland canopy] • Impacts to individual oak trees (outside of oak woodlands) mitigated as required in County policy • Impact analysis of special-status biological resources facilitated by County-defined special-status biological resources and mitigation ratios • Developer bears responsibility for all mitigation; County responsible for verifying compliance • County must analyze cumulative impacts to biological resources for each project in the absence of a regional mitigation strategy
Option 3 (Mitigation/Conservation Approach)	<ul style="list-style-type: none"> • Impacts to oak resources mitigated at a woodland level (as required in updated Policy 7.4.4.4 and 7.4.4.5) <u>OR</u> at a tree level (as required in updated Policy 7.4.5.1 and 7.4.5.2) [note that the updated policies would include establishing the method for calculating mitigation requirements – whether based on oak woodland habitat or oak woodland canopy] • Impact analysis of special-status biological resources facilitated by County-defined special-status biological resources and mitigation ratios • Developer site plan must be consistent with IBCs (minimum parcel size, contiguous areas, and minimum corridor widths) to maintain regional wildlife movement corridors • Developer incentivized to prioritize mitigation within PCAs and is assisted by the County's database of willing sellers within PCAs and IBCs • Developer bears responsibility for all mitigation; County responsible for verifying compliance • County to receive and manage any in-lieu fee payments made by developer for woodland-related impacts • County analysis of cumulative impacts for each project facilitated by County-wide mitigation strategy (through the identification of PCAs and IBCs)
Option 4 (Conservation Approach)	<ul style="list-style-type: none"> • Impacts to oak resources mitigated at a woodland level (as required in updated Policy 7.4.4.4 and 7.4.4.5) <u>AND</u> at a tree level (as required in updated Policy 7.4.5.1 and 7.4.5.2) [note that the updated policies would include establishing the method for calculating mitigation requirements – whether based

Table 2
Typical Mitigation Considerations by Policy Option

Policy Option	Typical Mitigation Considerations
	on oak woodland habitat or oak woodland canopy] <ul style="list-style-type: none"> • Impact analysis of special-status biological resources and mitigation ratios as defined by the INRMP • Developer site plan must be consistent with IBCs (minimum parcel size, contiguous areas, and minimum corridor widths) to maintain regional wildlife movement corridors • County to receive and manage any in-lieu fee payments made by developer for woodland-related impacts • County analysis of cumulative impacts for each project facilitated by INRMP

4.0 EXEMPTIONS

4.1 Defensible Space/Fuel Modification

Current guidance for application of Policy 7.4.4.4 exempts, from mitigation requirements, tree removal activities associated with an approved Fire Safe Plan (Policy 6.2.2.2) for existing structures (County of El Dorado 2006). However, no exemption is identified for tree removal associated with defensible space clearance activities for an existing structure that does not have an approved Fire Safe Plan in place. This guidance also states that tree removal that does not qualify for review as oak woodland under Policy 7.4.4.4 may be subject to review under Policy 7.4.5.2. Policy 7.4.5.2 is tied to discretionary projects or proposed development activities and would not apply to tree removal for defensible space for existing structures. Therefore, tree removal for defensible space for existing structures in oak woodlands would require mitigation under Policy 7.4.4.4. Removal of oak trees for defensible space for existing structures in non-oak woodland areas would not require mitigation under Policy 7.4.5.2.

California PRC Section 4291 requires defensible space maintenance of up to 100 feet from structures in State Responsibility Areas (SRA). Currently, oak tree removal in the County for maintaining defensible space for existing structures may or may not require mitigation, depending on whether tree removal is occurring within or outside of oak woodlands. The 2008 OWMP clarified this issue and exempted oak tree removal from mitigation requirements if it occurred within PRC 4291-required defensible space areas for existing structures. The current policy update effort would provide such clarification to this issue.

4.2 Agricultural Activities

Current guidance for application of Policy 7.4.4.4 exempts, from mitigation requirements, tree removal activities associated with agricultural cultivation (County of El Dorado 2006).

Specifically, this includes agricultural cultivation/operations, whether for personal or commercial purposes, on land planned (AL, NR, RR, and Agricultural Districts [-A]) or zoned (AE, AP, A, PA, SA-10, RA, TPZ, and MR) for agricultural use per Policy 2.2.1.5. The current policy update effort would maintain this exemption. In addition, the use of conservation easements over grazing lands for purposes of oak woodland mitigation for development projects would provide income for farmers and ranchers while maintaining agricultural land and replacing Williamson Act funds. This would contribute to meeting the desired objectives of the TGPA-ZOU described above in Section 2.3 and could be implemented under Options 1 through 4.

4.3 Kuehl Bill Exemptions

In addition to the exemptions identified in the General Plan, PRC 21083.4 (Kuehl Bill) exempts from oak woodland mitigation requirements the following:

- Projects undertaken pursuant to an approved Natural Community Conservation Plan (NCCP) that includes oaks as a covered species or that conserves oak habitat;
- Affordable housing projects pursuant to Section 50079.5 of the Health and Safety Code within an urbanized area or a sphere of influence (as defined by Section 56076 of the Government Code);
- Conversion of oak woodlands on agricultural land used to produce products for commercial purposes;
- Projects undertaken pursuant to PRC 21080.5.

5.0 COMPARISON TO POLICIES AND ORDINANCES IN SURROUNDING RURAL COUNTIES

For the purposes of comparison, oak-related and biological resources-related policies and ordinances in counties surrounding El Dorado County were evaluated and summaries of requirements are presented in Table 3. Counties with adopted Oak Woodland Management Plans are indicated. In addition, the table indicates the “option” most closely aligned with the adopted policies and ordinances in these neighboring counties.

Table 3
Neighboring County Tree and Habitat Conservation Policy and Ordinance Summary

County	Adopted OWMP	Tree-related General Plan Policy Summary	General Habitat and Species Conservation Policies	Most Similar Option
Alpine	No	Policies address only riparian vegetation protection and avoidance, and notification of California Department of Fish and Wildlife (CDFW) for impacts to sensitive tree species. No ordinance addressing tree or woodland protection/mitigation.	Policies generally require notification of CDFW when impacts will occur. Specific conservation policies are limited to deer and habitats for threatened Paiute and Lahontan cutthroat trout.	1/2
Amador	No	Policies identify careful protection of natural scenic resources and environmental assets in all future major public and private development; retention of mature trees may be required for scenic purposes; planting of native trees may be required. No ordinances in place regarding tree or woodland protection.	No policies directly related to habitat conservation or species protection. Establishes land use classifications for Open Space that "fully protect and maintain natural environmental values." No clarification beyond that. Typical of the time period, Conservation Plan emphasizes extractive land uses (e.g., mining, timber).	1/2
Butte	No	Policies call for establishment of mitigation bank including oak woodland, and to seek funding for an approach to protect significant specimen trees and groves.	Most habitat measures deferred to the Butte Regional Habitat Conservation Plan HCP/NCCP, being developed through a regional agency. Specific policies address guidelines for evaluating impacts outside the HCP/NCCP area, establishing a mitigation bank program for outside the HCP/NCCP area, biological assessment for development projects.	2/3
Calaveras	No	Policies address only riparian vegetation protection and avoidance. No ordinance addressing tree or woodland protection/mitigation.	Policies directly address only riparian habitat protection. Otherwise, relies on vegetative and/or wildlife assessment and appropriate mitigation measures during discretionary review, and application of Environmental Protection zone of the County Zoning Code to regulate development standards within significant protected wildlife and botanical habitats.	2
Nevada	No	Policies call for minimization of disturbance of heritage and landmark trees/groves and low elevation oaks; identify requirements for vegetation inventories for discretionary and ministerial projects; identify	Policies require County to prepare and implement a Habitat Management Plan for rare and endangered species and wetlands habitat while allowing the preparation of individual project habitat management plans as an alternative.	2/3

Table 3
Neighboring County Tree and Habitat Conservation Policy and Ordinance Summary

County	Adopted OWMP	Tree-related General Plan Policy Summary	General Habitat and Species Conservation Policies	Most Similar Option
		<p>mandatory clustering of development; and call for regulation to be adopted for protection of heritage/significant trees.</p> <p>The County's tree ordinance covers Landmark Trees (36" + dbh¹) requires tree replacement (on site) or payment into the County's Tree Preservation fund.</p>	No net loss of rare/endangered species or wetland/riparian over 1 acre.	
Placer	Yes	County has a tree preservation policy in place that outlines mitigation requirements for impacts to oak trees. As an un-adopted, working practice, the County requires mitigation for oak woodlands on properties that have 2 acres or more of oak woodland (on an acreage basis). Identification of significant trees (> 24" dbh) within oak woodland stands is also required. Project sites with < 2 acres of woodland are subject to the mitigation requirements in the County's tree preservation ordinance.	Development of the Placer County HCP/NCCP for programmatic compliance with Federal Endangered Species Act (FESA), California Endangered Species Act (CESA), and Clean Water Act Section 404 requirements. Other General Plan measures require County to identify and protect "significant ecological resource areas and other wildlife habitats critical to protecting and sustaining wildlife populations" through biological assessment and appropriate mitigation measures during discretionary review. County to develop and maintain biological resource maps for use in discretionary permit review. Also, sensitive habitat buffers for wetlands, streams, old growth woodlands, and special status species habitat, and several measures for protection and restoration of riparian and wetland habitats, vegetation communities, and open space areas.	3
Plumas	No	No specific policy related to oaks or other trees. No net loss policy for sensitive natural plant or habitat communities as defined by federal, state or local agencies.	Policy to protect areas with significant habitat and wetland values, but no detail provided as to implementation. No net loss policy for sensitive natural plant or habitat communities, including wetland habitat. Development of new biological resource maps for use in discretionary permit review.	1/2
Sierra	No	No specific policy related to oaks or other trees; prohibition on development in meadows.	Only policies relating to habitat are to prohibit land uses which require major new groundwater withdrawals which may impact meadows or other water-influenced habitats, and to prohibit development in meadows.	1

Table 3
Neighboring County Tree and Habitat Conservation Policy and Ordinance Summary

County	Adopted OWMP	Tree-related General Plan Policy Summary	General Habitat and Species Conservation Policies	Most Similar Option
Tehama	Yes, but voluntary	<i>Voluntary Oak Woodland Management Plan adopted in 2005. The purpose of this document was to expand upon, refine, and improve voluntary oak protection guidelines that had been established by the County in 1994, and to provide a consistent policy for conservation and use of oak woodland habitats throughout the County. Related GP policies call for voluntary protection and restoration, mapping, and monitoring, while examining feasibility of Oak Woodlands Ordinance.</i>	Policies to establish zoning and Best Management Practices (BMPs) that protect riparian zones, wetlands, and other lands identified by California Natural Diversity Database (CNDDDB) as natural areas. Also to encourage creation of interconnected habitat preserves. Refers species-specific conservation to CDFW.	2/3
Tuolumne	No	<p>Policies identify retaining existing significant vegetation (including Heritage Trees and oak woodlands); "no net loss" for valley oak woodland in development areas; minimum acreage preservation standards for oak woodlands; call for establishing a Heritage Tree Program; call for developing voluntary tree protection guidelines;</p> <p>No ordinance specifically addressing tree or woodland protection/mitigation.</p> <p><i>Note: Tuolumne County's Biological Resources Section of the proposed Natural Resources element is proposed to be comprehensively updated with the elimination of the County's mitigation program which has been in effect since 1987 and the establishment of thresholds of significance for oak woodland conversion.</i></p>	<p>Requires development of Tuolumne County Biological Conservation Handbook, to be updated at least every 5 years, and which would be used to establish appropriate mitigation for project impacts under a Biological Resources Conservation Program.</p> <p>Policy requiring no net loss of habitat values for wetlands, valley oak woodland, serpentine soils, old growth coniferous forest, big trees forest, old growth oak, aspen growth, native perennial grasslands, native grasslands, or cliff habitats.</p>	2

¹ dbh = diameter at breast height, a measurement of tree trunk diameter measured at 4.5 feet (54 inches) above natural grade

6.0 REFERENCES

BOS (El Dorado County Board of Supervisors). 2011. "Resolution of Intention to Amend the General Plan." Resolution 182-2011. Adopted November 14, 2011.

BOS (El Dorado County Board of Supervisors). 2012a. "General Plan Policies 7.4.2.8, 7.4.2.9, 7.4.4.4, 7.4.5.1, and 7.4.5.2." From Roger Trout (Development Services Director) to El Dorado County Board of Supervisors. September 24, 2014.

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County of El Dorado. 2004. *2004 El Dorado County General Plan: A Plan for Managed Growth and Open Roads; a Plan for Quality Neighborhoods and Traffic Relief*. Adopted July 19, 2004.

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Senate Bill 1334 (Kuehl bill). Introduced by Senator Kuehl. Oak woodlands conservation: environmental quality.

MEMORANDUM

To: Shawna Purvines, Principal Planner, El Dorado County
From: Cathy Spence-Wells, Principal
Subject: Biological Resources Policy Update Decision Points and Timeline
Date: December 31, 2014
Attachment(s): Scope of Services – New Economics and Advisory

1.0 INTRODUCTION AND BOARD DIRECTION

The purpose of this memo is to outline for the Board the steps needed to update the General Plan biological resources policies based on the direction staff has received to date. In considering the potential biological resource policy updates, the Board has reviewed the History/Background memo on the biological resource policies and the Policy Options memo outlining the broad alternatives for updating the policies. Both memos were presented at the July 28, 2014 Board of Supervisors hearing. The History/Background memo outlines the County's General Plan development history and key issues in implementing the current General Plan. The Policy Options memo outlines four major approaches for the General Plan Biological Resources Policy Update. Both those documents and the presentations made to the Board are available on the County's website at

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

At the Board of Supervisors hearing on October 7, 2014, the Board directed staff to proceed with Policy Option 3 (Mitigation/Conservation option). Under Policy Option 3, the intent is to amend the General Plan policies to redefine the County's program for management of and mitigation for biological resource impacts. This option includes reviewing and updating the Oak Woodland Management Plan (OWMP) and possibly updating the Priority Conservation Areas (PCAs), while eliminating the Integrated Natural Resources Management Plan (INRMP). The revised General Plan policies, OWMP, PCAs, and Important Biological Corridors (IBCs) would comprise the County's resource management strategy. Under this option, the revised policies and implementation measures would lay out the requirements for analysis and mitigation of impacts, define the roles of project developers and the County in implementing mitigation, and prioritize mitigation opportunities.

To expedite preparation of the revised policies, implementation measures, and OWMP, the Board directed that public outreach will take place at Board meetings, similar to the approach being used for the Targeted General Plan Amendment and Zoning Ordinance Update (TGPA-ZOU). In addition, there was considerable discussion at the October meeting regarding the timely implementation of the OWMP, specifically related to Option B of General Plan Policy 7.4.4.4 (oak woodland in-lieu fee option). At the November 21, 2014 Board hearing, further direction was given to ensure the updated OWMP provides for re-establishment of the in-lieu fee program. The Board further directed, at the December 7, 2014 Board hearing, that staff should rely on the approach, methodology, format, and structure of the existing OWMP to the extent feasible, with updates and revisions as necessary to reflect current conditions and ensure compliance with state law.

2.0 MITIGATION/CONSERVATION APPROACH OVERVIEW

As described in the History/Background memo, the County's goal for the General Plan Biological Resources Policy Update is to develop clear, easy to interpret, self-implementing policies that define what resources are covered and the types of development activities governed by the policies. The Board has determined that Policy Option 3, the mitigation/conservation approach outlined in the Policy Options memo, will best provide the County with policies and implementation measures that will work in concert with each other to provide the County with a feasible, effective, and comprehensive program for mitigating biological resource impacts anticipated under the General Plan. The policies will clearly define mitigation options that comply with applicable state and federal laws and meet the County's resource management goals. The policies will also respond to the unique issues facing El Dorado County, including the development potential along the Highway 50 corridor and associated effects on habitat connectivity in this area and the need to balance economic development and resource conservation/protection in the County. A primary goal of this policy update effort is to expand the options for oak woodland mitigation by re-establishing the County's Oak Woodland Conservation Fund In-Lieu Fee option. The following sections summarize the components of the mitigation/conservation approach related to oak resources and other special-status biological resources as described in the Policy Options memo. The decision-points identified in Section 3 correspond to the key points in the approaches summarized below.

2.1 Oak Woodland General Plan Policies and Oak Woodland Management Plan

As presented in the Policy Options memo, the mitigation/conservation approach for oak resources (Policies 7.4.5.1, 7.4.5.2, 7.4.4.4 and 7.4.4.5 and the OWMP) is anticipated to involve the following:

- Update and amend the policies to retain and clarify requirements related to the OWMP and PCAs
- Update policies to create a clear distinction between which projects would be subject to oak tree impact mitigation and which would be subject to oak woodland mitigation
- Update policies to clarify and define the method of oak woodland measurement (woodland area or canopy cover area), to be used consistently for impact calculations and mitigation area determination
- Define mitigation options for oak woodland impacts, to be consistent with PRC 21083.4 (Senate Bill 1334 (Kuehl bill)), possibly including tree planting, conservation, and/or in-lieu fee payment
- Define mitigation options for oak tree impacts, possibly including tree planting, onsite retention/protection, and/or in-lieu fee payment
- Provide for developer planting/monitoring/reporting to occur and define the County's process for verifying compliance with mitigation

Under this approach the County would be responsible for managing mitigation fees, acquiring/managing conservation lands or easements, allocating mitigation funds to a local land trust or conservancy for oak mitigation/preservation projects, or a combination thereof. Environmental review for individual projects would rely on requirements for project-specific mitigation measures included in the revised General Plan policies and/or the OWMP.

2.2 Other General Plan Biological Resource Policies

As presented in the Policy Options memo the mitigation/conservation approach for special-status resources (Policies 7.4.2.8, and 7.4.2.9) is anticipated to involve the following:

- Update policies to omit the requirements for the INRMP as currently envisioned, but retain and clarify the requirements for PCAs and IBCs, and possibly other important ecological areas identified by the PAWTAC (e.g., aquatic environments, important habitat for migratory deer herds, Pine Hill areas, valley oak woodland, etc.)
- Update policies to reflect the County's General Plan EIR definition of special-status vegetation communities and species
- Update policies to create clear instructions for mitigating impacts to special-status resources and consider an implementation measure requiring the County to create an ordinance outlining mitigation requirements specific to each category of special-status resources (e.g., vegetation communities, plants, wildlife)

- Update policies to address wildlife movement, possibly through requirements and standards (i.e., sizing and placement) for undercrossings of future 4- and 6-lane roadway projects
- Establish an implementation program to provide mitigation assistance by requiring the County to maintain a database of willing sellers within PCAs and IBCs
- Establish specific standards for IBCs, such as minimum parcel size, contiguous areas, and minimum corridor widths

This approach would comply with state and federal law and provide defensible policies. The policies and implementation measures would define special-status biological resources, establish thresholds for determining the significance of individual project impacts, and identify mitigation strategies. This would allow individual property owners to better understand the County's requirements. Further, providing for the County to maintain a database of willing sellers would facilitate developers' identification of mitigation opportunities.

3.0 BIOLOGICAL RESOURCE PROGRAM KEY DECISION POINTS

Staff will be presenting information and several questions to the Board at public meetings over the first few months of 2015. The direction the Board provides at these meetings will inform preparation of the draft policies, OWMP and implementation measures. The policy direction needs and timeframe for decision-making are outlined in the following sections. The initial Board meeting (January 13, 2015) is planned to discuss the proposed approach and timeline, set the Board calendar for the biological resources policy update project, and provide direction for the possible update to the oak woodland in-lieu fee methodology (discussed below in Section 3.1.1). Subsequent meetings tentatively scheduled for the last Mondays in January (January 26, 2015), February (February 23, 2015), and March (March 30, 2015) will be special Board meetings focused on the project. The following sections present more detail regarding Board decision points to be considered during these meetings. This memo provides a full discussion of the January 13 decision-point and lesser detail for future decision-points. Additional details will be provided in preparation for those future hearings (no less than one week prior to the meeting), in part based on any preliminary Board discussion of those items and direction received at each meeting. As discussed in Section 4.0 below, the project timeline allows 5 months for Board decisions and public input, and meeting the decision point schedule presented below will be critical to timely completion of the General Plan Biological Resource Policy Update process.

3.1 Decisions for January 2015 Board Meetings

3.1.1 Board Meeting – January 13, 2015

During the Board meeting on January 13, 2015, the approach, decision-points, and timeline presented in Sections 2.0 through 4.0 will be presented to the Board for approval. This meeting will also be used to set the Board calendar for the biological resources policy update project. Additionally, the following decision point will be presented to the Board for direction:

1. Determine whether the current in-lieu fee amount should be retained or re-analyzed and updated.

- Options: Rely on existing methodology with update of fee amount based on current property values or prepare an AB 1600 Fee Nexus Study and revise in-lieu fee with updated methodology, assumptions, and property values.
- Analysis: The Board has directed that the General Plan and OWMP provide the opportunity to mitigate oak resource impacts via an in-lieu fee program (Option B). This was included in the 2008 OWMP through the OWMP Conservation Fund In-Lieu Fee, which required that developers pay a fee to provide compensation for both habitat loss and habitat fragmentation impacts due to development. The County would use the Conservation Fund to acquire and manage lands within the PCAs in implementation of the OWMP. As provided in General Plan Policy 7.4.4.4, mitigation through the Conservation Fund was required at a 2 to 1 ratio. The County has been prevented from using the in-lieu fee program as a result of the OWMP lawsuit, wherein the court found that the County had not completed sufficient environmental review of the OWMP and fee program, stating that the Program EIR for the General Plan (2004) did not “set the fee rate, how the acreage subject to the option B fee rate should be measured, or how the off-site oak woodland losses would be mitigated by the fees.”

It is expected that the County would adopt the OWMP and Conservation Fund by ordinance. Typically, General Plan policies provide guidance for achieving the County’s goals; management plans (e.g. the OWMP) provide the necessary analysis, background material, and data; and ordinances provide enforceable measures in clear language. By creating an ordinance, oak resource impact analysis and mitigation requirements can be applied consistently and uniformly to all projects.

To adopt the OWMP and Conservation Fund by ordinance, the Conservation Fund and In-Lieu Fee must meet the requirements of the Mitigation Fee Act

Memorandum

Subject: Decision Points and Timeline

(commonly referred to as AB 1600). AB 1600 requires that development fees must be related to the impact that the development would cause and the fee amount must be reasonably related to the actual cost of the service being provided by the public agency. In this case, the County would be providing the service of acquiring and managing land under conservation easements for the purpose of preserving and managing oak resources. To comply with AB 1600, the County must identify all sources and amounts of funding anticipated to be used to in the oak conservation program and provide a mechanism by which those costs can be equitably applied to individual development projects that would benefit from the mitigation opportunities provided in the OWMP.

The 2008 OWMP Fee was determined based on a detailed assessment of costs associated with acquisition and management of conservation easements. These calculations included consideration of property values, costs to acquire the easements, biotic surveys, habitat management, reporting and monitoring, and operational considerations. However, at a minimum, these fee calculations will require adjustment and refinement to ensure they comply with AB 1600. The data does not appear to be consistent with respect to the total acreage of land included in the program (for example, OWMP Table 5 indicates that the PCAs include 66,053 acres, while the fee calculations shown in Appendix B to the OWMP appear be based on a total of 120,000 to 125,000 acres). Further, the fee calculations assume that canopy coverage on the impacted land will be the same as on the mitigation land. In other words while the policies on which the OWMP and Conservation Fund are based require that impacts and mitigation be evaluated based on canopy coverage, the In-Lieu Fee is based on calculations of impact and mitigation by land acreage.

Through preparation of an AB 1600 Fee Nexus Study as recommended, the County would have the data necessary to demonstrate the effectiveness of the OWMP Conservation Fund at mitigating impacts to oak resources on an individual project level as well as cumulatively throughout General Plan implementation.

A Scope of Work from New Economics and Advisory is attached to this memo. The Scope of Work provides a suggested approach to recalculate an in-lieu fee in a manner that is consistent with AB 1600 and will provide the data necessary to support this General Plan policy and OWMP update and the associated EIR. If the County determines that an update to the fee program is appropriate, the work will to commence quickly to match the overall project timeline.

It is noted that while the AB 1600 Fee Nexus Study and in-lieu fee recalculation are not specifically included in Dudek's contract, Dudek can accommodate the additional costs associated with the New Economics and Advisory scope of work under our contracted Supplemental Task. However, this would require all of the Supplemental Task budget, leaving none to cover any other incidental tasks that may arise as additional necessary components of the work program.

- Recommendation: Prepare an AB 1600 Fee Nexus Study to provide the legal and financial basis for the OWMP Conservation Fund In-Lieu Fee by defining the methodology, assumptions, and property values that underlie the in-lieu fee.

3.1.2 Board Meeting – Tentatively Scheduled for January 26, 2015

The following decision points will be presented to the Board for direction during the tentatively scheduled January 26, 2015 Board meeting.

2. Determine which method of oak woodland measurement (woodland area or canopy cover area), would be used for impact calculations and mitigation area determination.

- Options: Use oak canopy or oak woodland as a unit of measurement for determining oak resource impacts and quantifying mitigation requirements. Note that an additional decision point (#4) regarding oak resource impacts and mitigation for smaller projects is tentatively scheduled for a February Board hearing.
- Analysis: Initial information regarding this decision point was presented to the Board on July 23, 2014. The following summarizes the information presented at the Board meeting:
 - Oak canopy represents the area of ground directly beneath the dripline (or canopy edge) of an oak tree and in areas with dense tree cover, driplines may overlap. Using oak canopy as a unit of measurement excludes portions of an oak woodland (other plant species, gaps) but is something that is more easily mapped and understood by the public.
 - Oak woodlands encompass some of the areas between trees and may include other associated tree species. Based on the California Fish and Game Code, an oak woodland is defined as “an oak stand with greater than 10% canopy cover.” There is often a misconception that if a parcel has 10% canopy cover then the entire parcel is an oak woodland. However, this is not necessarily the case as the 10% canopy cover

definition applies to the stand or grouping of trees, not the parcel boundary.

- A comparison of conceptual oak canopy and oak woodland mapping is presented in Figure 1, which was presented to the Board on July 23, 2014.

The County's Interim Interpretive Guidelines for Policy 7.4.4.4 clarify that oak canopy is to be used as the unit for measuring oak woodland habitat and determining mitigation requirements. Oak canopy may be more easily identified and mapped, while delineation of oak woodlands requires more understanding of the various components that constitute an oak woodland. The oak canopy measurement is tree-focused and does not consider other factors that contribute to wildlife habitat value, which are considered in oak woodland measurements. Wildlife habitat values considered in oak woodland measurement include tree species composition, understory vegetation (type and location), the structure and distribution of trees within a stand, and food and shelter sources for different wildlife species. Using oak woodland as the unit of measurement would retain consistency with state-level oak woodland regulations (Kuehl Bill), allow for mitigation of the same woodland type (like for like), and eliminate the potential for mitigating project-related impacts twice (once for trees and once for wildlife species that use oak woodlands for habitat).

- Recommendation: Using oak woodland as a method of measurement is the recommended approach as it: 1) retains consistency with state regulations (Kuehl Bill); 2) allows for like-for-like mitigation based on type of oak woodland impacted; 3) considers habitat value of oak woodlands; and 4) eliminates the potential need to mitigate project-related impacts twice (once for trees (canopy) and again for habitat (woodland)).

3. Determine whether to require undercrossings for future 4- and 6-lane roadway projects to provide for wildlife movement, and if so, determine specific standards for undercrossings (i.e., size, location).

- Options: Adopt criteria defining where roadway undercrossings would be required or determine that undercrossings are not appropriate.
- Analysis: The efforts undertaken by the County to develop the INRMP included a study to identify wildlife movement corridors within the County. Overlaying these corridors on maps of existing and planned high-volume roadways (such as 4- and 6-lane roadways) allows for identification of areas where the roadways could form a barrier to wildlife movement and have an adverse effect on established wildlife movement patterns. Generally, roads that cross through or

along wildlife movement corridors experience higher than average animal mortality rates and also present higher hazards for motorists.

There appear to be a few locations where future 4- and 6-lane roads may cross the Important Biological Corridors that were mapped during Phase I of the INRMP. These may be locations where undercrossings are warranted. Dudek will provide mapping and analysis of these locations prior to the January 26 Board hearing to inform this discussion. Requiring that new or widened roads include undercrossings to facilitate wildlife movement may reduce the potential for significant adverse effects and may support the County's efforts at minimizing the effects of habitat fragmentation by maintaining connections between large areas of natural habitat.

- Recommendation: Adopt criteria defining where roadway undercrossings would be required, if necessary, to minimize adverse effects on wildlife movement and roadway safety.

3.2 Decisions for Tentatively Scheduled February 2015 Board Meeting

It is anticipated that the Board will be asked for direction on the following decision points during the tentatively scheduled February 23, 2015 Board meeting.

4. Determine if a two-tiered oak mitigation approach where smaller projects mitigate for tree impacts and larger projects mitigate for oak canopy or woodland impacts is necessary and if so determine the appropriate threshold.

- Options: Options for this decision include whether to establish a two-tiered approach for oak mitigation. If the two-tiered approach is supported, a threshold for determining which projects are subject to *oak tree* mitigation and which are subject to *oak canopy or woodland* mitigation (as discussed in Decision Point #2) would need to be determined. Leaving the policy language unchanged would mean that some individual projects potentially would require both oak canopy/woodland and oak tree mitigation.
- Analysis: The intent of this decision-point is to consider a framework that could allow smaller parcels and projects to mitigate impacts at a tree level (e.g., based on diameter-inches of trees removed) and larger parcels and projects to mitigate impacts at a canopy or woodland level. General Plan Policy 7.4.4.4 identifies that oak woodland mitigation applies to 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. General Plan Policies 7.4.5.1

and 7.4.5.2 address oak tree removal permitting and mitigation requirements for discretionary projects. However, the current policy language does not preclude one project from needing to mitigate under both Policy 7.4.4.4 (oak woodlands) and Policies 7.4.5.1 and 7.4.5.2 (oak trees).

In order to separate the mitigation requirements, a threshold could be established that clearly defines which approach a project would need to follow. Threshold determination may be based on parcel size, on-site oak woodland acreage, a combination of these factors, or factors determined by the Board. An example of this approach is currently employed in neighboring Placer County, where projects with less than 2 acres of oak woodland address impacts at a tree level and those with greater than 2 acres of oak woodland address impacts at a woodland level. To assist in decision-making, recommendations for thresholds will be presented at the February Board meeting.

- Recommendation: Defining a threshold for determining which project or parcels are subject to analyzing impacts at a tree level or at a woodland level is the recommended approach as it: 1) eliminates the potential need for projects to mitigate twice; 2) does not put oak canopy or woodland mitigation requirements on projects that may only be impacting one or two trees; and 3) provides for mitigation that is more consistent with the scale of the impact.

5. Determine whether exemptions to oak woodland impact mitigation requirements included in the current OWMP and General Plan biological resource policies shall remain and/or be revised.

- Options: Options for this decision point include providing exemptions to oak resource mitigation for specific project types/actions consistent with what is currently provided, revise/refine the list of project types/actions that are exempt, or eliminate exemptions.
- Analysis: Exemptions for oak woodland mitigation requirements are currently provided for agricultural activities, fire safety, affordable housing, and public road and public utility projects. Affordable housing and agricultural exemptions are provided for in state-level oak woodland regulations (Kuehl Bill). Exemptions for fire safety are linked to the requirements for maintaining defensible space around habitable structures in state responsibility areas (Public Resources Code (PRC) 4291). Public road exemptions are intended to facilitate projects that are necessary to increase capacity, protect the public's health, and to improve the safe movement of people and goods in existing public road rights-of-way. Public utility exemptions are intended to apply to state-level vegetation clearance

requirements for transmission lines (California Public Utilities Commission General Order (GO) 95). For the February Board meeting, Dudek will provide additional descriptions of the exempt activities and any recommendations regarding refinement or revisions of those exemptions.

- Recommendation: Retaining the existing exemptions is the recommended approach as it: 1) is consistent with the Kuehl Bill (for affordable housing, agricultural production); 2) does not conflict with other state-level fire safe (PRC 4291) or utility line clearance requirements (GO 95); and 3) is intended to facilitate safe transportation.

6. Determine whether Priority Conservation Areas (PCAs) will be updated.

- Options: Options for this decision include updating the PCAs or leaving them as defined in the 2008 OWMP.

Analysis: The PCAs delineated under the 2008 OWMP relied on the future development of the Integrated Natural Resources Management Plan (INRMP) to address connectivity between PCAs, north-south connectivity across Highway 50, and the potential role of oak woodland areas less than 40 acres in maintaining connectivity between larger expanses of oak woodlands. As the INRMP will not be completed under this policy option, the County may need to identify another mechanism to address wildlife habitat connectivity.

Another important consideration in refining the PCAs is to ensure that sufficient acreage is available in the PCAs for mitigation of oak woodland impacts expected based on General Plan projections. A comparison of anticipated oak woodland impact acreage and available oak woodland acreage, by woodland type, in the PCAs would be an important analysis in updating the PCAs. To assist in decision-making, a comparison of anticipated oak woodland impacts under the General Plan and those identified under the current PCAs will be presented at the February Board meeting.

- Recommendation: Updating the PCAs is the recommended approach as an update could: 1) better provide for availability of oak woodland habitats suitable for conservation; and 2) allow for consideration of the habitat connectivity value of the PCAs in the absence of the INRMP.

7. Determine appropriate mitigation requirements specific to each category of special-status resources (e.g., vegetation communities, plants, wildlife) for inclusion in policies.

- Options: In preparation for the February Board meeting, Dudek will identify specific options for each category of special-status resource.
- Analysis: Dudek assumes that the categories of special-status resources will be the same as those defined in the County's General Plan EIR. Based on Board direction, Dudek will provide draft General Plan policies that define County mitigation requirements specific to each category.
- Recommendation: In preparation for the February Board meeting, Dudek will identify specific recommendations for the mitigation requirements for each category of special-status resource.

8. Determine specific standards for the establishment of IBCs, such as minimum parcel size, contiguous areas, and minimum corridor widths.

- Options: In preparation for the February Board meeting, Dudek will identify specific options for standards that could be used to define IBCs throughout the County.
- Analysis: Dudek will provide a discussion of the intent of the IBCs and the minimum corridor characteristics that could support the County's goals for IBCs, habitat connectivity, and wildlife movement.
- Recommendation: In preparation for the February Board meeting, Dudek will identify specific recommendations for standards that could be used to define IBCs throughout the County.

3.3 Decisions for Tentatively Scheduled March 2015 Board Meeting

It is anticipated that the Board will be asked for direction on the following decision points during the tentatively scheduled March 30, 2015 Board meeting.

9. Determine which important ecological areas identified by the PAWTAC (e.g., aquatic environments, important habitat for migratory deer herds, Pine Hill areas, valley oak woodland, etc.) to include with the PCAs and IBCs as we develop a conservation strategy.

- Options: In preparation for the March Board meeting, Dudek will identify specific options for important ecological areas that could be included with the PCAs and IBCs.
- Analysis: This decision would follow the Board decision regarding whether the PCAs will be updated with respect to oak woodlands. Dudek will provide an evaluation of the degree to which the oak woodland PCAs coincide with the

important ecological areas and meet the County's goals for management of special status resources. Dudek will identify the degree to which the PCAs offer protection to each category of special status resource.

- Recommendation: In preparation for the March Board meeting, Dudek will identify specific recommendations for important ecological areas that could be included with the PCAs and IBCs.

10. Define the County's requirements for maintaining a database of willing sellers within PCAs and IBCs and/or other important biological areas.

- Options: In preparation for the March Board meeting, Dudek will identify specific options for the General Plan policy requirements related to the County's maintenance of a database of willing sellers within the PCAs and IBCs and/or other important biological areas.
- Analysis: The database of willing sellers is seen as a critical component to facilitating identification of appropriate mitigation land for acquisition, either by developers or by the County in implementation of the OWMP. The General Plan policy and associated implementation measures would define the key characteristics of this database program.
- Recommendation: In preparation for the March Board meeting, Dudek will identify specific recommendations for the General Plan policy requirements related to the County's maintenance of a database of willing sellers within the PCAs and IBCs and/or other important biological areas.

4.0 TIMELINE AND MILESTONES

Preparation of the revised policies, OWMP and EIR could be completed within approximately 17 months, allowing 5 months for Board decisions and public input with concurrent preparation of the OWMP and updated biological resources policies, and 12 months to prepare and process the EIR. The sections presented below summarize the critical milestones necessary to meet this schedule, and a master schedule is provided at the end of this section.

4.1 Biological Resource Policies and Oak Woodland Management Plan

The following timeline and milestones has been developed for preparation of the revised biological resource policies and OWMP:

- January – March 2015: Board meetings for decision-making on policy issues

- May 2015: Draft policy language and OWMP presented to the Board for review and comment
- June 2015: Final draft policy language and OWMP presented to Board, to be used in preparation of the EIR
- May 2016: Final policy language and OWMP completed (concurrent with Final EIR)

4.2 Environmental Impact Report

The following timeline and milestones has been developed for preparation of the Environmental Impact Report (EIR) for the biological resource policies and OWMP. The draft General Plan policies and draft OWMP would form the basis for the project description to be used in the EIR. Thus, this timeline is integrated with the timeline for the policy updates:

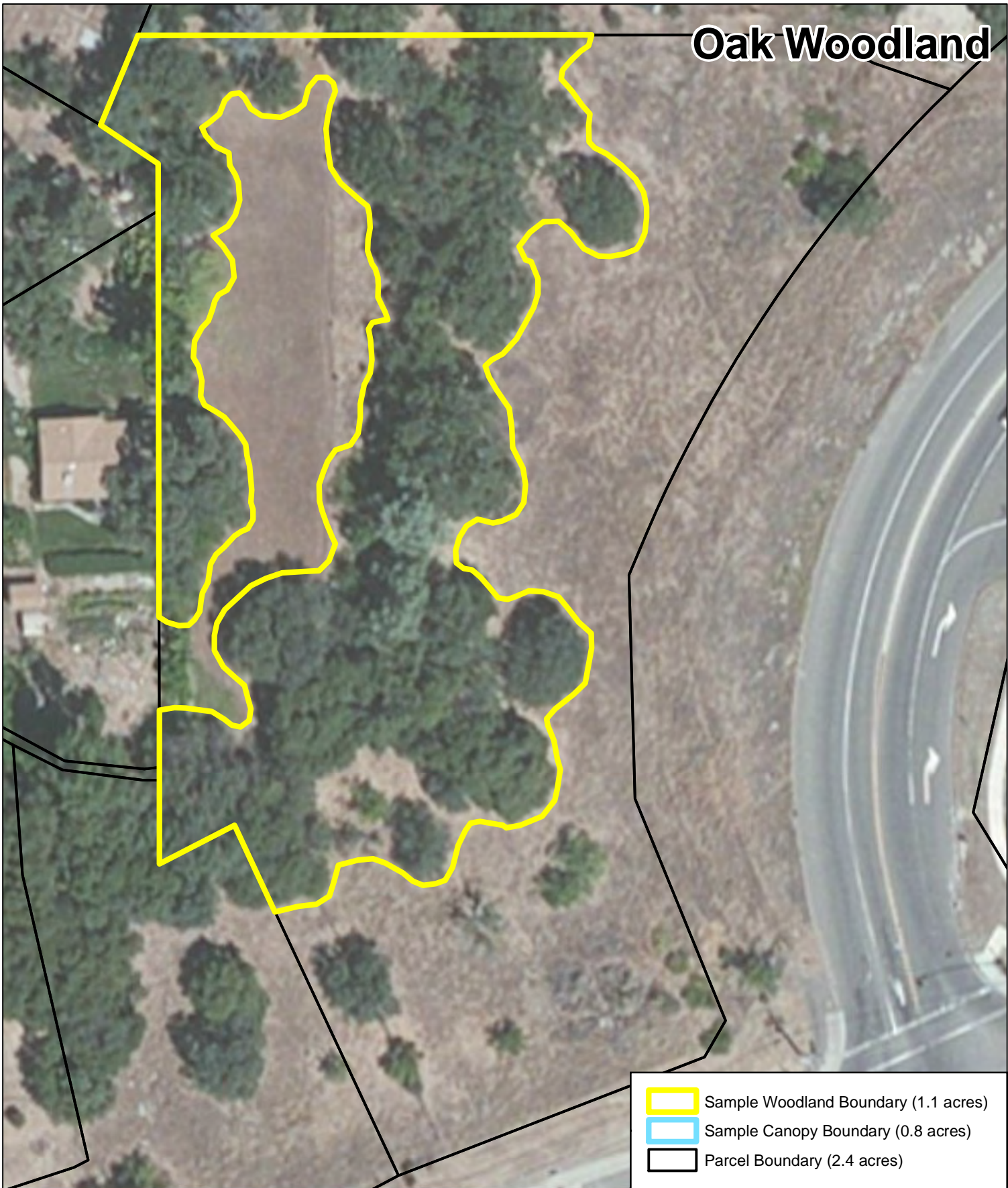
- April 2015: Administrative Drafts of Initial Study and Notice of Preparation
- June 2015: Notice of Preparation distributed
- July 2015: Scoping Meetings held
- September 2015: Administrative Draft EIR prepared
- November 2015: Draft EIR prepared
- November/December 2015: Public meetings on Draft EIR held
- January to March 2016: Administrative Final EIR prepared
- May 2016: Final EIR prepared

Memorandum

Subject: Decision Points and Timeline

Table 1. Biological Resource Policy Update Timeline

Task	2015												2016				
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
Biological Policies/OWMP																	
Board meetings for decision-making/public input																	
Draft policy language/OWMP																	
Final draft policy language/OWMP																	
Final policy language/OWMP																	
Environmental Impact Report																	
Administrative Drafts of Initial Study and Notice of Preparation																	
Notice of Preparation																	
Scoping Meeting																	
Administrative Draft EIR																	
Draft EIR																	
Public meetings on Draft EIR																	
Administrative Final EIR																	
Final EIR																	



- Sample Woodland Boundary (1.1 acres)
- Sample Canopy Boundary (0.8 acres)
- Parcel Boundary (2.4 acres)

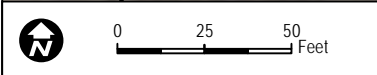


FIGURE 1
Exampe Comparison of Oak Canopy and Oak Woodland Mapping Methods

MEMORANDUM

To: Shawna Purvines, Principal Planner, El Dorado County
From: Cathy Spence-Wells, Principal
Subject: Biological Resources Policy Update Decision Points 2 and 3
Date: January 20, 2015
Attachment(s): Figures 1-3

1.0 INTRODUCTION

At the Board of Supervisors hearing on January 13, 2015, the approach, timeline, and 10 decision points for the Biological Resources Policy Update project were presented to the Board for approval. The Board generally agreed with the steps and timeline proposed to update the General Plan biological resources policies. In addition during the January 13 hearing, Decision Point 1 was presented to the Board and direction was given to prepare an AB 1600 Fee Nexus Study and revise the in-lieu fee with updated methodology, assumptions, and property values. During the January 26 hearing, Decision Points 2 and 3 will be presented to the Board for direction. This memo provides a detailed analysis of Decision Points 2 and 3 to facilitate the Board's discussion.

The timeline presented at the January 13 hearing provided for Decision Points 4 through 8 to be heard by the Board in February and Decision Points 9 and 10 to be heard in March. Based on our preparation for those hearings to date, we anticipate that it would be beneficial to allow more time for discussion of Decision Points 4 through 7. We recommend postponing discussion of Decision Point 8 to the March hearing.

2.0 DECISION POINT 2: OAK RESOURCE MEASUREMENT METHODOLOGY

Determine which method of oak resource measurement (woodland area or canopy cover area) will be used for impact calculations and mitigation area determination.

Options: Use oak canopy or oak woodland as the unit of measurement for determining oak resource impacts and quantifying mitigation requirements.

Analysis: Initial information regarding this decision point was presented to the Board on July 28, 2014. The following summarizes and expands on that discussion:

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- The Kuehl Bill (also known as Senate Bill 1334 and codified as California Public Resources Code Section 21083.4) requires that the County determine whether a project within its jurisdiction may result in a conversion of oak woodlands that will have a significant effect on the environment and identifies mitigation alternatives for project-related impacts to oak woodlands.
- The 2004 General Plan uses the term oak woodland interchangeably and in the same context as oak canopy, resulting in some confusion and need for interpretation. The County's Interim Interpretive Guidelines for Policy 7.4.4.4 currently provide that oak canopy is to be used as the unit for measuring oak resources and determining mitigation requirements.
- Oak canopy represents the ground surface area directly beneath the dripline (or canopy edge) of an oak tree. In areas with dense tree cover, driplines may overlap. Oak canopy is relatively easily mapped and understood by the public. While oak canopy is a component of an oak woodland, it excludes other woodland vegetation (understory plants, other plant species) and does not consider other factors that contribute to wildlife habitat value.
- Oak woodlands include oak trees and canopy, may encompass some of the areas between tree canopies, and may include other associated tree or understory shrub species. Based on the California Fish and Game Code, an oak woodland is defined as "an oak stand with greater than 10% canopy cover." The 10% canopy cover threshold is related only to an oak tree-dominated native vegetation community where the oak tree canopies cover at least 10% of the ground surface area of that vegetation community. In other words, under California Fish and Game Code, an oak woodland is defined as a stand of oak trees where the tree canopy covers at least 10% of the total ground area within that stand. The 10% canopy cover threshold is not related to parcel or other land use boundaries. Oak woodland delineation is sometimes less easily mapped, but incorporates areas and features that contribute to habitat value. A comparison of conceptual oak canopy and oak woodland mapping is presented in Figure 1, which was presented to the Board on July 28, 2014. Additionally, a comparison of the variation in oak woodland canopy cover is presented in Figure 2, which shows two areas in El Dorado County that are both classified as oak woodlands.

Issues relevant to the decision to use oak canopy or oak woodland as unit of measurement are presented below:

- Consistency with State Regulations: As noted, the Kuehl Bill requires that the County determine whether a project may result in impacts to oak woodlands. Oak canopy is a component of an oak woodland but does not reflect the entirety of the biological resources present within an oak woodland. Wildlife habitat values considered in oak

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Subject: Biological Resources Policy Update Decision Points 2 and 3

woodland measurement include tree species composition, understory vegetation (type and location), the structure and distribution of trees within a stand, and food and shelter sources for different wildlife species. Oak canopy mapping does not consider these values. Using oak woodland as the unit of measurement does consider these values and would be consistent with the Kuehl Bill.

- Impact and Mitigation Determination: There are five distinct types of oak woodland in the County encompassing approximately 250,000 acres. When mapping oak woodland, the type of woodland (e.g. valley oak woodland, blue oak woodland) is classified. This classification is important as it is linked to habitat for special-status wildlife species. In El Dorado County, numerous special-status species rely on oak woodlands for habitat, including golden eagle, pallid bat, yellow-breasted chat, among others. Delineation of oak woodlands for a project site is conducted during biological site evaluations when vegetation mapping is completed.

When determining project-related impacts to oak woodlands, the type of oak woodland is considered and replacement/compensation for the same woodland type may be necessary to mitigate impacts to special-status species habitat. From a biological perspective, different wildlife species use different vegetation communities and mitigation of impacts to specific vegetation communities is typically required. Mapping oak canopy will typically not allow for determination of impacts by oak woodland type and would require additional analysis to link oak canopy mapping data with oak woodland type mitigation needs. Additionally, using oak canopy as the method of measurement may not be sufficient to address impacts to special-status species habitat. If oak canopy is used as the method of measurement, the potential exists for projects to be required to mitigate both impacts to tree canopy and impacts to oak woodland habitat. If oak woodland is used as the method of measurement, mitigation for oak woodland impacts would cover oak resource mitigation and habitat mitigation needs.

- Conservation Easement or In-Lieu Fee Determination: To date, easement and fee determination for mitigation purposes has been based on oak woodland acreage. Using oak canopy as the method of measurement would require additional analysis while updating the in-lieu fee program and refining the Priority Conservation Areas (PCAs). Specifically, mapping the amount of oak canopy within the PCAs and General Plan impact areas would be necessary so that it can be demonstrated that the PCAs include enough canopy coverage to mitigate anticipated impacts. This would increase the necessary time and cost for completing the Biological Resources Policy update project.
- Current County Mitigation Requirements and Process: The current process for evaluating oak resource impacts under the Interim Interpretive Guidelines for General

Plan Policy 7.4.4.4 (Option A) requires that a Tree Survey, Preservation, and Replacement Plan be prepared for a project that may impact oak woodlands. This Plan is required to evaluate on site oak woodlands and determine the extent of coverage by oak canopy and the oak canopy impacts resulting from a project. Utilizing oak woodland as the unit of measurement is not expected to add additional time or cost to the preparation of such plans. Option A mitigation requires that a project retain a minimum percentage of the canopy onsite, using a sliding scale related to the density of the canopy – a site with sparse canopy must retain a higher percentage of the canopy, while a site containing dense canopy allows more canopy removal. Option A also requires replacement planting of oak trees based on a formula designed to restore the area of canopy removed. To reflect use of oak woodland as the unit of measure, the mitigation requirements in Option A would also need to be reconsidered and analyzed.

Recommendation: Using oak woodland as a method of measurement is the recommended approach as it: retains consistency with state regulations (Kuehl Bill), considers the habitat value of oak woodlands and eliminates the potential need to mitigate both oak canopy and oak woodland, and minimizes the time and cost needed to update the in-lieu fee program and PCAs. Using oak woodland as a method of measurement will also result in consistent interpretation of County regulations. Proposed policy revisions will be brought back to the Board for consideration following the completion of the workshops related to the 10 Decision Points.

3.0 DECISION POINT 3: ROADWAY UNDERCROSSING REQUIREMENTS

Determine whether General Plan policy should require project-specific wildlife movement studies for future 4-, 6- and 8-lane roadway projects.

Options: Determine that General Plan policy language should require project-specific wildlife movement studies to evaluate the need for wildlife undercrossings for future 4-, 6- and 8-lane roadway projects or determine that current General Plan policy language regarding undercrossings is adequate.

Analysis: The intent of this decision point is to consider wildlife movement related to the construction of new roads of 4 or more lanes, or the widening of roads to 4 or more lanes. At the Board's direction, this could apply to County road projects and roads associated with development projects. Wildlife movement, other than roadway undercrossings, will be addressed in a future decision point about Important Biological Corridors (IBCs).

The Decision Points and Timeline memo (December 31, 2014) characterized this decision point as determining whether to require roadway undercrossings and to establish design criteria for any required undercrossings. However based on our review and analysis of available data, as

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Subject: Biological Resources Policy Update Decision Points 2 and 3

summarized below, we recommend that the Board instead first define the County's broader policy approach to this issue. Further discussion regarding the need for and design of undercrossings can be considered at a future hearing.

Generally, roads that cross through or along wildlife movement corridors experience higher than average animal mortality rates and also present higher hazards for motorists. Undercrossings that facilitate wildlife movement may reduce the potential for significant adverse effects to public safety and may support the County's efforts at minimizing the effects of habitat fragmentation by maintaining connections between areas of natural habitat.

In addition, the California Environmental Quality Act (CEQA) Appendix G checklist requires analysis of a project's effects on wildlife movement. Specifically an analysis of whether projects "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 any native wildlife nursery sites" is required. This includes all discretionary projects, including roadways and land development. Current General Plan Policy 7.4.2.8 B states that the County will consider wildlife movement during construction of all future 4- and, 6-lane roadways, and when feasible, will preserve and enhance natural undercrossings that could be utilized for wildlife movement.

The Circulation Map for the General Plan (Transportation and Circulation Element, Figure TC-1) identifies a number of 2025 improvements for 4-, 6- and 8-lane roadways:

- 4-lane, undivided road: Bass Lake Road
- 4-lane, divided road: Silva Valley Parkway, El Dorado Hills Boulevard, Green Valley Road, Bass Lake Road, White Rock Road, Starbuck Road, Missouri Flat Road
- 6-lane, divided road: Latrobe Road, White Rock Road, El Dorado Hills Boulevard
- 4-, 6- and 8-lane freeway: US 50 (from the Sacramento County line to Pollock Pines)

Phase 1 of the Integrated Natural Resources Management Plan (INRMP) including preparation of a study meant to address wildlife movement corridors within the County, and the issue of north-south wildlife movement across Highway 50 in particular. However, the question posed in this decision point was not addressed in Phase I INRMP studies. The Wildlife Movement and Corridors Report (December 7, 2010) focused on connectivity and movement needs for vertebrate species in the plan area in the context of existing roads and development. This report was received and filed by the Board of Supervisors, but was not adopted. The report evaluated the potential value of improving existing under-crossings along US 50 and identifies potential wildlife undercrossing locations along US 50. The report evaluated methods to retrofit existing transportation structures (e.g., culverts) and construction of new crossing structures to replace linkages lost when US 50 was initially constructed approximately 50 years ago. This report,

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along with an Indicator Species Report received and filed but not adopted by the Board, and a Habitat Inventory and Mapping Report, were intended to form the basis for further analysis and decision-making during the INRMP Phase 2. Under the Board's direction to update the biological resource policies consistent with a mitigation/conservation approach, Phase 2 of the INRMP will not be developed. In the absence of the INRMP, the General Plan policies and implementation measures would be an appropriate place to address wildlife movement.

Figure 3 overlays existing and planned high-volume roadways (such as 4-, 6-, and 8-lane roadways from the General Plan Transportation and Circulation Element) with the elements of the Habitat Inventory and Mapping Report (including IBCs, migratory deer herds, road density, etc.). Figure 3 also includes the five potential wildlife undercrossing locations along US 50 identified in the Wildlife Movement and Corridors Report. Although this report does not address other future 4- and 6- lane County roadway projects, overlaying the information from these reports in this figure allows identification of areas where the roadways could potentially form a barrier to wildlife movement and have an adverse effect on established wildlife movement patterns and roadway safety. As shown in Figure 3, future 4-, 6- and 8-lane County roads are primarily located in already heavily populated areas in western El Dorado County and generally away from identified IBCs and PCAs. This preliminary review suggests that there would be limited 4-, 6- and 8-lane roadway projects requiring wildlife undercrossings.

To allow the Board to better understand the costs associated with wildlife undercrossing construction, retrofitting and maintenance, the Wildlife Movement and Corridors Report describes a Caltrans undercrossing project between Greenstone Road and El Dorado Road. This project cost just under \$1 million for the installation of a 12'x12' box culvert to allow the passage of deer and other large mammals. The Wildlife Movement and Corridors Report also notes that retrofitting existing culverts to include ledges for smaller mammals costs between \$17 and \$20 per linear foot. The total cost of retrofitting 3,000 linear feet of culvert crossings identified in the wildlife movement and corridors report is \$60,000. The cost of maintenance (twice yearly) of approximately 15 existing culverts under US 50 is \$15,000 a year.

Wildlife movement studies are a key tool for identifying wildlife affected by a project and the need for, number of, and design criteria (size, spacing) for wildlife undercrossings. Such studies were previously anticipated to be prepared with INRMP Phase 2 and would have supported the County in considering wildlife movement during construction of future 4- and 6- lane roads, in compliance with General Plan Policy 7.4.2.8 B. At the project-specific level, wildlife movement studies can be completed as part of the biological resource evaluation required for the development review process, and appropriately take into account the conditions of the project site and surrounding property to determine whether wildlife undercrossings are warranted and, if so, the type, size, and locations that would best mitigate a project's impacts.

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Subject: Biological Resources Policy Update Decision Points 2 and 3

Recommendation: Based on current data, there are a limited number of 4-, 6- and 8-lane planned roadways where potential wildlife undercrossings may need to be considered. As described above, CEQA Guidelines require an evaluation of wildlife movement impacts, and any appropriate mitigation, on a project and cumulative basis; however the Guidelines do not require particular studies to support the evaluation. It is recommended that the General Plan policy language be revised to require wildlife movement studies to evaluate project-specific impacts on public safety and wildlife for projects that include new roads of 4 or more lanes or the widening of roads to 4 or more lanes. This would ensure a consistent approach within the County to evaluating and mitigating the effects of roadway projects on wildlife movement and associated public safety. Proposed revisions to the policy will be brought back to the Board following the completion of the workshops regarding the 10 Decision Points.

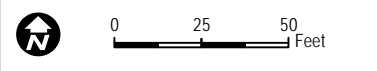
Oak Canopy

Oak Woodland



Note: Oak Canopy and Oak Woodland delineations presented herein are samples drawn from aerial photographs and are intended to show the differences in mapping methods. No field evaluations or verifications were performed in delineating these boundaries.

- Sample Woodland Boundary (1.1 acres)
- Sample Canopy Boundary (0.8 acres)
- Parcel Boundary (2.4 acres)



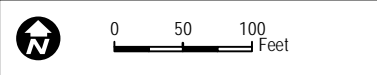
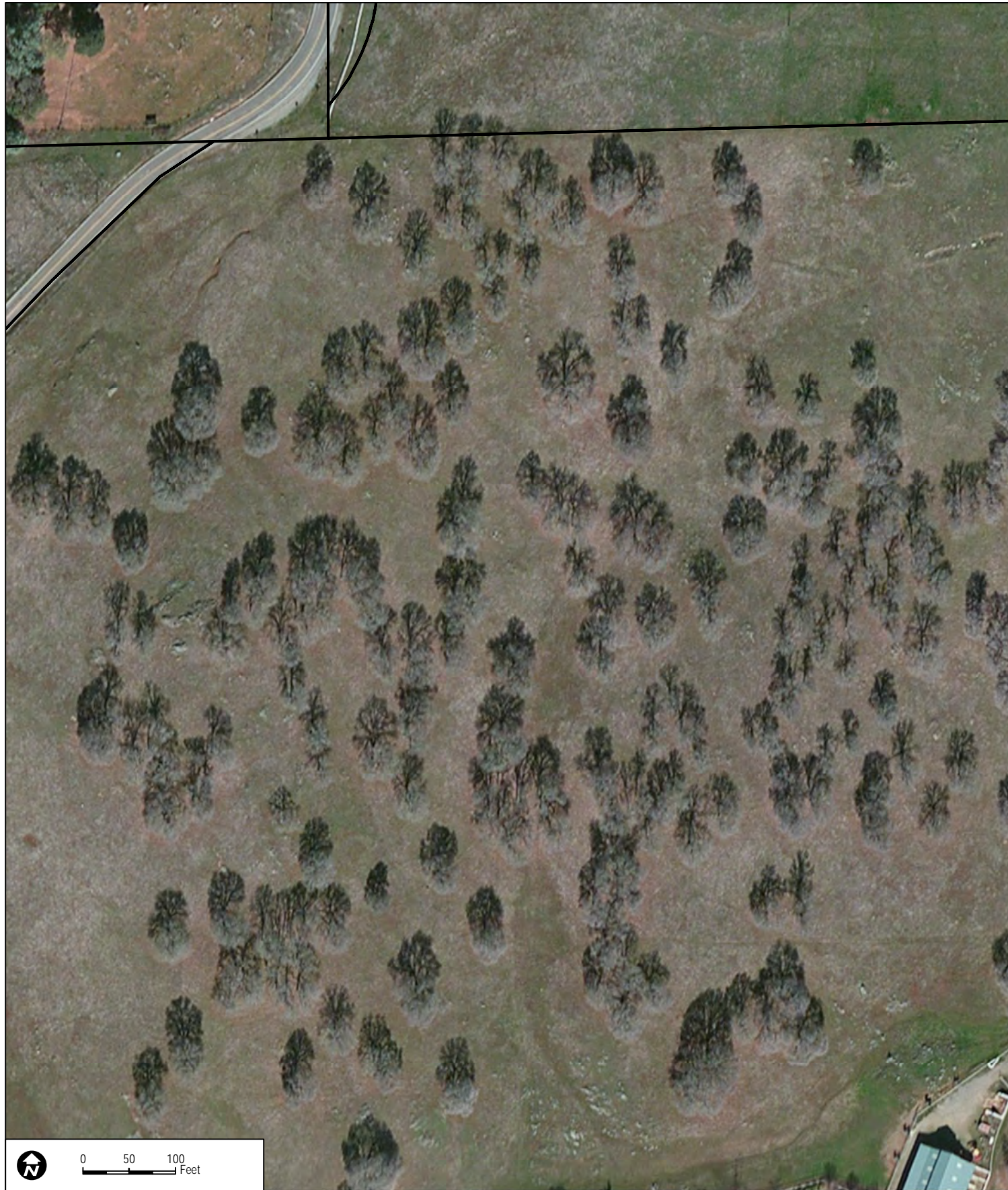
DUDEK

SOURCE: ESRI 2014; El Dorado County 2014

8229-01

Biological Resources Policy Update Decision Points 2 and 3

FIGURE 1
Example Comparison of Oak Canopy and Oak Woodland Mapping Methods



DUDEK

SOURCE: ESRI 2014; El Dorado County 2014; USFS 2011

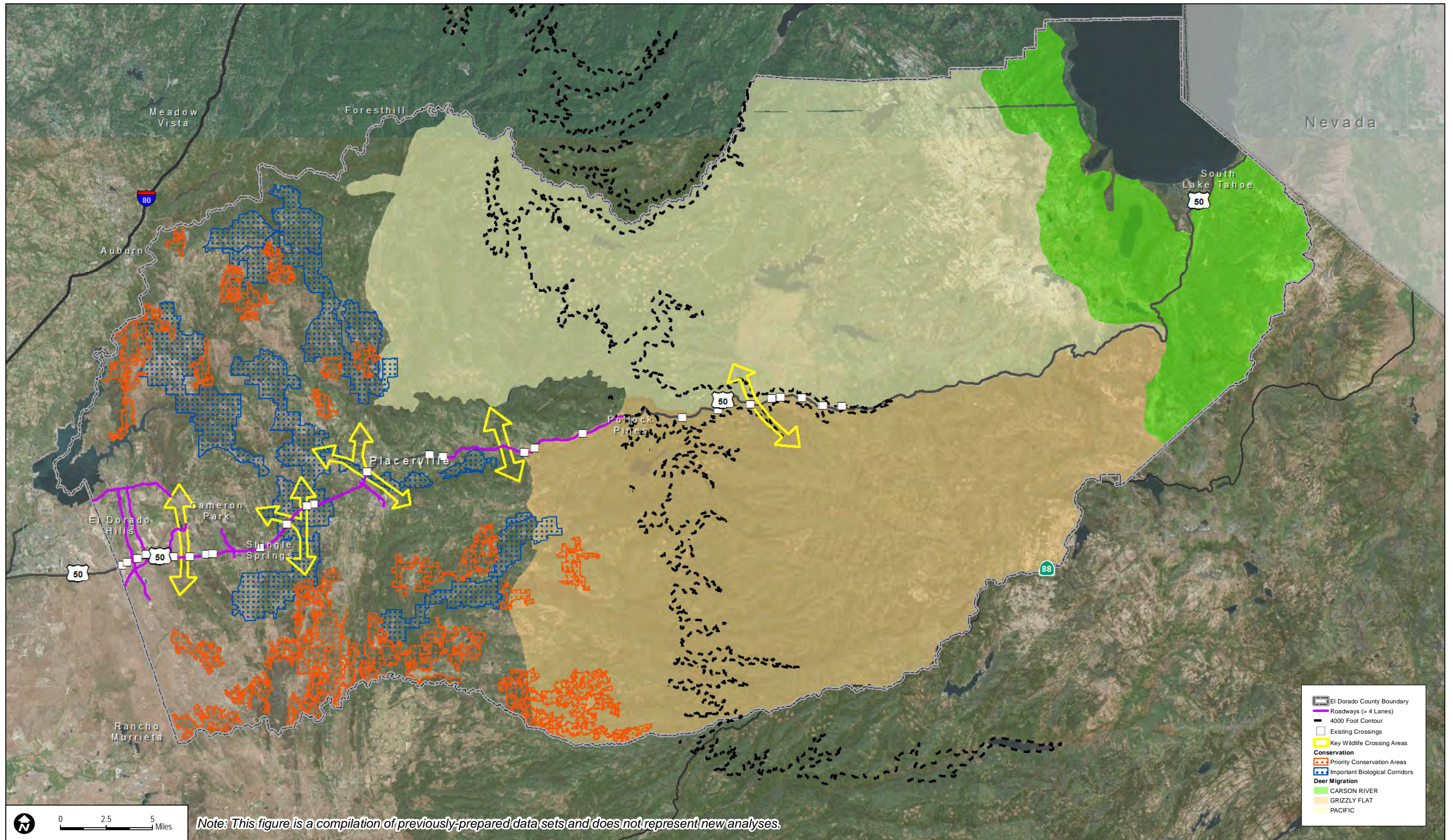
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Biological Resources Policy Update Decision Points 2 and 3

FIGURE 2

Comparison of Oak Woodland Areas

12-1203180B8696520



MEMORANDUM

To: Shawna Purvines, Principal Planner, El Dorado County
From: Cathy Spence-Wells, Principal
Subject: Biological Resources Policy Update Decision Points 4 through 7
Date: February 17, 2015
Attachment(s): Figures 1-2

1.0 INTRODUCTION

At the Board of Supervisors hearing on January 13, 2015, the approach, timeline, and 10 Decision Points for the Biological Resources Policy Update project were presented to the Board for approval. The Board generally agreed with the steps and timeline proposed to update the General Plan biological resources policies. During the January 13, 2015 hearing, Decision Point 1 was presented to the Board and direction was given to prepare an AB 1600 Fee Nexus Study and revise the in-lieu fee with updated methodology, assumptions, and property values. During the January 26, 2015 hearing, Decision Points 2 and 3 were presented to the Board and direction was given to use oak woodland as the method for determining oak woodland impacts and necessary mitigation (Decision Point 2) and to revise the General Plan policy language to require wildlife movement studies to evaluate project-specific impacts on public safety and wildlife for projects that include new roads of 4 or more lanes or the widening of roads to 4 or more lanes (Decision Point 3). This memo provides a detailed analysis of Decision Points 4 through 7 to facilitate the Board's discussion.

2.0 DECISION POINT 4: OAK MITIGATION APPROACH

Determine if a two-tiered oak mitigation approach, where smaller projects mitigate for oak tree impacts and larger projects mitigate for oak woodland impacts, is necessary, and if so, determine the appropriate threshold.

Options: Options for this decision include establishing a two-tiered approach for oak mitigation that clearly defines which projects are subject to *oak tree* mitigation and which are subject to *oak woodland* mitigation or leaving the existing policy language unchanged. Leaving the policy language unchanged would mean that some individual projects potentially would require both oak woodland and oak tree mitigation.

Analysis: The intent of this Decision Point is to consider a two-tiered framework that would clearly identify project mitigation requirements for impacts to oak woodlands versus mitigation requirements for impacts to oak trees. General Plan Policies 7.4.4.4 and 7.4.4.5 identify oak woodland retention and mitigation requirements, while General Plan Policies 7.4.5.1 and 7.4.5.2 address oak tree removal permitting and mitigation requirements for discretionary projects. The current General Plan policies imply a 2-tiered approach to address impacts to oak woodlands and oak trees separately, however the language does not effectively separate these two approaches. Specifically, for some projects and actions, the current policy language does not preclude one project from needing to mitigate under both Policy 7.4.4.4 (oak woodlands) and Policies 7.4.5.1 and 7.4.5.2 (oak trees). The two-tiered framework presented in this memo is intended to provide a clear path for project applicants and landowners, would remove the potential need to mitigate under multiple policies, and would retain consistency with General Plan objectives.

The following sections provide detail about important policy components that were evaluated for this Decision Point.

- **Existing Policy Language:** As noted, current policy language does not preclude one project from needing to mitigate for oak woodland impacts under Policy 7.4.4.4 and for individual oak tree impacts under Policies 7.4.5.1 and 7.4.5.2, even if the impacted trees are a component of onsite oak woodlands. The updated framework could include language or provisions that prevent the need to mitigate impacts to woodland trees if oak woodland mitigation is already being required.
- **Projects and Actions Not Subject to Policy Requirements:** A review of mitigation/permit exemptions for oak trees and oak woodlands is presented in Decision Point 5. These exemptions are not consistent. Specifically, Policy 7.4.4.4 currently requires mitigation for projects that 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 canopy cover by woodland habitats. Policy 7.4.5.2 provides tree removal permit exemptions for removal of trees less than 36 inches in trunk diameter 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.
- **Potential Threshold for 2-Tiered Approach:** As noted, several exemptions exist that limit the applicability of these policies, but interpretation can cause confusion when evaluating proposed projects or actions. One consistency between the policies is a 1-acre

threshold, with clarifications, for exempting certain projects/actions. A policy language modification for the Board to consider is to exempt oak woodland impact analysis/mitigation on parcels that are 1 acre and less in size and that cannot be further subdivided. This would be consistent with the intent of the language in Policy 7.4.5.2 for individual trees. Applying this 1 acre threshold to all oak woodland and oak tree polcieis would ensure policies are implemented consistently and would clarify mitigation requirements.

To better understand the effect of this potential policy language modification, an analysis of County parcel data and oak woodland distribution data was conducted. The analysis uses geographic information systems (GIS) tools, County assessor parcel data, and oak woodland distribution data available from CAL FIRE’s Fire and Resource Assessment Program (FRAP 2006) to evaluate the quantities of parcels that may be affected by a 1 acre threshold for the potential 2-tiered approach.

Table 1
Summary of Parcel Sizes with Oak Woodlands in El Dorado County

Parcel Size	Total in County*	Quantity with Oak Woodlands (% of Total)	Quantity with Oak Woodlands and Not Classified as Developed (% of Total)
<= 1 acre	50,999	8,550 (9.7%)	1,938 (2.2%)
> 1 and <= 2 acres	6,806	4,363 (4.9%)	771 (0.9%)
> 2 and <= 5 acres	10,318	7,919 (8.9%)	1,523 (1.7%)
> 5 and <= 10 acres	8,798	7,488 (8.5%)	1,685 (1.9%)
> 10 and <= 40 acres	7,267	5,990 (6.8%)	2,327 (2.6%)
> 40 acres	3,970	2,437 (2.8%)	1,962 (2.2%)
Total:	88,158	36,747 (41.7%)	10,206 (11.6%)

*Excludes parcels within the Cities of Placerville and South Lake Tahoe

As shown in Table 1, a total of 50,999 parcels in the County are less than or equal to 1 acre, excluding those in the Cities of Placerville and South Lake Tahoe. Of that total, 8,550 parcels have some level of oak woodland coverage, based on the extent of the FRAP oak woodland distribution data. Of the parcels that are equal to or less than 1 acre with some level of oak woodland coverage, 1,938 are not classified as developed by the County Assessor. Modification of policy language to exempt parcels less than or equal to 1 acre from oak woodland impact evaluation/mitigation could affect between 1,938 and 8,550 parcels in the County (2.2% to 9.7% of all 1 acre and smaller parcels in the County).

- **Oak Woodland Retention Standards:** General Plan Policy 7.4.4.4 currently requires oak canopy retention. The current oak canopy retention standards are presented in Table 2 below.

Table 2
Current Oak Canopy Retention Standards (Policy 7.4.4.4)

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

Source: El Dorado County General Plan Policy 7.4.4.4

Given the Board direction on January 26, 2015 to use oak woodland as the unit of measurement, the retention requirements identified above in Table 2 could simply be updated to reflect oak woodlands. However, the current retention requirements do not actually require retention if an in-lieu fee option is used and the current requirements can be confusing to interpret and implement at a project level, according to feedback provided by County staff.

A modification to this policy that is recommended for the Board to consider is to incentivize woodland retention rather than require it. This modification could be implemented by eliminating the current retention requirement table and replacing it with a variable mitigation ratio approach. An example of this mitigation ratio is presented in Table 3.

Table 3
Sample Oak Woodland Mitigation Ratios

Percent of Oak Woodland Impact	Oak Woodland Mitigation Ratio
0-50%	1:1
50.1-75%	1.5:1
75.1-100%	2:1

Using the incentive-based retention approach, projects that impact a greater percentage of onsite oak woodland area would need to provide more relative mitigation than those that impact a smaller percentage of onsite oak woodland area. For example, a project that impacted 40% of the woodland on the project site (and retained 60% of it onsite) would

be required to mitigate at a 1:1 ratio; a project that impacted 60% of the woodland onsite (and retained 40%) would be required to mitigate at a 1.5:1 ratio; and a project that impacted 80% of the woodland (retaining 20%) would be required to mitigate at a 2:1 ratio. It is expected that this approach would simplify the oak woodland impact analysis process, relative to the existing retention policy, and would retain consistency with the current policy approach. Oak woodland mitigation options could then be determined on a project-level to meet the necessary mitigation ratio.

- **Heritage Trees:** Current policy language (Policy 7.4.5.2) requires a tree removal permit for trees with a trunk diameter of at least 6 inches (or 10-inch aggregate for multi-stem trees) and provides exemptions if trees measure less than 36 inches in trunk diameter. While not specifically defined, the identified 36-inch threshold under existing policies affords greater protection to large trees. However, while General Plan Objective 7.4.5 is to “protect and maintain native trees including oaks and landmark and heritage trees,” the definitions of ‘heritage tree’ and ‘landmark tree’ in the 2004 General Plan are vague and do not provide any type of measurement criteria to easily determine a tree’s status. Based on the current policy language, heritage or landmark tree protection is difficult to evaluate. A policy modification for the Board to consider is to specifically define heritage trees as native oak trees with individual trunk diameters measuring 36 inches or more.
- **Two-Tiered Oak Tree and Oak Woodland Framework:** As noted, the current policies related to oak woodland and oak tree protection and mitigation contain vague language and can be difficult to implement. In an effort to clarify the process by which oak tree and oak woodland impacts are determined and mitigated, a two-tiered approach has been identified that incorporates existing General Plan requirements and the policy modifications identified above. The following summarizes the two-tiered approach, while Figure 1 presents a conceptual oak resource process flow chart that graphically outlines this approach.
 - Oak Woodlands: Impacts to oak woodlands that do not meet qualified exemptions would be mitigated. Oak woodland mitigation requirements and options would be outlined in the OWMP. Mitigation options would include on- or offsite tree planting, on- or offsite conservation, and in-lieu fee payment. Mitigation ratios would be based on the percent of oak woodland impacted and would be applicable across all mitigation options (i.e., the mitigation ratio would remain constant regardless of the mitigation approach selected).
 - Oak Trees: Mitigation for impacts to individual heritage trees would be required regardless of parcel size, project type or action, or location within or outside of an oak woodland. Impacts to individual oak trees measuring between 6 and 36 inches

trunk diameter that do not meet qualified exemptions would be mitigated, unless already being mitigated as a component of oak woodland mitigation requirements. Oak tree mitigation requirements would be outlined in the OWMP. Mitigation options would include onsite or offsite tree planting and in-lieu fee payment. Mitigation requirements would be based on an inch-for-inch replacement scale.

- ***Qualified Exemptions:*** Exemptions would be consistent for projects impacting oak woodlands or individual oak trees; however, no exemptions would apply for impacts to heritage trees. Exemptions are discussed in greater detail in Decision Point 5.
- ***Comparison with Other Rural Counties:*** In order to provide context for this Decision Point, an analysis of tree and woodland policies in neighboring rural or foothill counties was conducted. Based on this analysis, the recommended oak woodland-related policy approach most closely aligns with Placer and Tuolumne Counties, both of which require an assessment of impacts on an oak woodland basis. These counties also include provisions for in-lieu fee payments (Placer County) and oak woodland preservation standards (Tuolumne County). The oak tree policies most closely aligned with the approach for El Dorado County include those from Nevada County (preservation of Landmark Trees (36” and larger)), Placer County (individual tree mitigation requirements), and Tuolumne County (Heritage Tree and individual oak tree mitigation requirements). A detailed summary of this policy comparison is presented in Table 4.

Table 4
Neighboring County Tree and Woodland Policy and Ordinance Summary

County	Adopted OWMP	Tree-related Policies/Regulations	Woodland-related Policies/Regulations
Alpine	No	No policies/ordinances addressing tree protection/mitigation.	No policies/ordinances addressing woodland protection/mitigation.
Amador	No	GP policies identify careful protection of natural scenic resources and environmental assets in all future major public and private development; retention of mature trees may be required for scenic purposes; planting of native trees may be required. No ordinances in place regarding tree protection.	No ordinances in place regarding woodland protection. <i>Note: Policies included in the Open Space Element of the Draft General Plan update encourage preservation of oak woodlands in accordance with Public Resources Code 21083.4, conservation of corridors for wildlife movement in oak woodlands, and provide for support voluntary conservation easements to protect oak woodlands. Implementing measures in the Open Space Element include requiring the assessment of impacts of proposed projects on oak woodlands and requiring mitigation per Public Resources</i>

Table 4
Neighboring County Tree and Woodland Policy and Ordinance Summary

County	Adopted OWMP	Tree-related Policies/Regulations	Woodland-related Policies/Regulations
			<i>Code section 21083.4. For discretionary development proposals, it is the County's objective to avoid or reduce impacts to oak woodlands through project design and modification.</i>
Butte	No	<p>GP policies call for establishment of mitigation bank including oak woodland, and to seek funding for an approach to protect significant specimen trees and groves.</p> <p>Improvement Standards require parcel maps and site improvement plans to show trees (4" and larger) and other foliage, including any tree that falls within the existing or proposed right of way or easement. Permission to remove any tree not required to be removed by construction in the rights of way or easements must be obtained from the county.</p> <p>Subdivision Ordinance requires that all subdivisions be designed so that existing trees be preserved according to the requirements of the department of development services.</p>	<p>GP policies call for establishment of mitigation bank including oak woodland, and to seek funding for an approach to protect significant specimen trees and groves.</p> <p>Subdivision Ordinance requires that subdivision map applications include biologic and botanical surveys of all drainage swales, creek or river frontages, riparian areas and valley oak woodland.</p>
Calaveras	No	<p>Policies address only riparian vegetation protection and avoidance.</p> <p>No ordinance addressing tree protection/mitigation.</p>	No policies/ordinances addressing woodland protection/mitigation.
Nevada	No	<p>Policies call for minimization of disturbance of heritage and landmark trees/groves and low elevation oaks; identify requirements for vegetation inventories for discretionary and ministerial projects; identify mandatory clustering of development; and call for regulation to be adopted for protection of heritage/significant trees.</p> <p>The County's tree ordinance covers Landmark Trees (36" + dbh¹) requires tree replacement (on site) or payment into the County's Tree Preservation fund.</p>	<p>Policies call for minimization of disturbance of heritage and landmark trees/groves and low elevation oaks; identify requirements for vegetation inventories for discretionary and ministerial projects; identify mandatory clustering of development; and call for regulation to be adopted for protection of heritage/significant trees.</p> <p>The County's tree ordinance covers Landmark Trees (36" + dbh¹) requires tree replacement (on site) or payment into the County's Tree Preservation fund.</p>
Placer	Yes	County has a tree preservation policy in place that outlines mitigation requirements for impacts to oak trees.	As an un-adopted, working practice, the County requires mitigation for oak woodlands on properties that have 2 acres or more of oak woodland (on an acreage basis). Identification of significant trees (> 24" dbh) within oak woodland stands is also required. Project sites

Table 4
Neighboring County Tree and Woodland Policy and Ordinance Summary

County	Adopted OWMP	Tree-related Policies/Regulations	Woodland-related Policies/Regulations
			with < 2 acres of woodland are subject to the mitigation requirements in the County's tree preservation ordinance.
Plumas	No	No specific policy related to oaks or other trees. No net loss policy for sensitive natural plant or habitat communities as defined by federal, state or local agencies. No ordinances in place regarding tree protection.	No specific policies/ordinances related to woodland protection/management.
Sierra	No	No specific policies related to oaks or other trees; prohibition on development in meadows. No ordinances in place regarding tree protection.	No specific policies/ordinances related to woodland protection.
Tehama	Yes, but voluntary	Implementing measure in the Land Use Element of the GP requires the county to work with project applicants, during the review of new discretionary development applications, to retain mature oak trees, of all sizes and species, when and where possible using creative land and site development measures. Implementing measure included in the Air Quality Element of the GP includes a provision for the county, upon tree removal, to encourage the replanting of an equal or greater number of trees. No ordinances in place regarding tree protection.	<i>Voluntary Oak Woodland Management Plan</i> adopted in 2005. The purpose of this document was to expand upon, refine, and improve voluntary oak protection guidelines that had been established by the County in 1994, and to provide a consistent policy for conservation and use of oak woodland habitats throughout the County. Related GP policies call for voluntary protection and restoration, mapping, and monitoring, while examining feasibility of Oak Woodlands Ordinance.
Tuolumne	No	GP policies identify retaining existing significant vegetation (including Heritage Trees); call for establishing a Heritage Tree Program; call for retention of trees along Scenic Routes; and call for developing voluntary tree protection guidelines. Implementing measures require Requires development of Tuolumne County Biological Conservation Handbook, to be updated at least every 5 years, and which would be used to establish appropriate mitigation for project impacts under a Biological Resources Conservation Program. Chapter 9.24 of the Tuolumne County Code discourages premature removal of native oak trees and establishes penalties, mitigation requirements and an enforcement procedure should premature removal of oak trees in anticipation of development occur.	GP policies identify retaining existing significant vegetation (including oak woodlands); "no net loss" for valley oak woodland in development areas; and minimum acreage preservation standards for oak woodlands. Implementing measures require development of Tuolumne County Biological Conservation Handbook, to be updated at least every 5 years, and which would be used to establish appropriate mitigation for project impacts under a Biological Resources Conservation Program. Chapter 9.24 of the Tuolumne County Code discourages premature removal of native oak trees or oak canopy and establishes penalties, mitigation requirements and an enforcement procedure should premature removal of oak trees in anticipation of development occur. Monetary fines may be imposed as high as three times any in-lieu fee established by the

Table 4
Neighboring County Tree and Woodland Policy and Ordinance Summary

County	Adopted OWMP	Tree-related Policies/Regulations	Woodland-related Policies/Regulations
			<p>board of supervisors to mitigate impacts to native oaks or oak woodlands in accordance with the mitigation program established in the Biological Resources Conservation Handbook. Any monetary fines collected shall be deposited in the Tuolumne County Oak Woodland Conservation Fund.</p> <p>Tuolumne County Oak Woodland Conservation Fund was established in 2008 to collect fees to mitigate impacts to oak woodlands and net loss of old growth oaks. The money collected in the fund may only be allocated by the Board of Supervisors and the fund may be used to purchase land in fee or conservation easements for the protection of native oak woodlands or for other measures that will restore or enhance native oak woodlands, or otherwise mitigate the impacts associated with the conversion of oak woodlands or impacts to old growth oaks.</p> <p><i>Note: Tuolumne County's Biological Resources Section of the proposed Natural Resources element is proposed to be comprehensively updated with the elimination of the County's mitigation program which has been in effect since 1987 and the establishment of thresholds of significance for oak woodland conversion.</i></p>

¹ dbh = diameter at breast height, a measurement of tree trunk diameter measured at 4.5 feet (54 inches) above natural grade

Recommendation: The recommended approach is to update the General Plan policies and OWMP language to:

- Revise the minimum parcel size criteria for projects that are exempt from oak woodland mitigation.
- Update the oak woodland retention standards and mitigation ratios.
- Clarify mitigation requirements for individual native oak trees outside of oak woodlands and for heritage trees.

3.0 DECISION POINT 5: OAK RESOURCE EXEMPTIONS

Determine whether exemptions to oak resource impact mitigation requirements included in the current OWMP and General Plan biological resource policies shall remain and/or be revised.

Options: Options for this Decision Point include providing exemptions to oak resource mitigation for specific project types/actions consistent with existing OWMP and General Plan policies, revising/refining the list of project types/actions that are exempt, or eliminating exemptions.

Analysis: Given the Board direction on January 26, 2015 to use oak woodland as the unit of measurement, this Decision Point references only oak woodlands and oak trees assuming that the use of the term ‘oak canopy’ used in current General Plan language will be revised as a component of this biological resources policy update project.

Generally the exemptions for impacts to oak woodland include: agricultural activities; fire safety; affordable housing; road widening and realignments necessary to increase capacity, protect public health, and improve safe movement of people and goods in existing public rights-of-way; and public utility projects. Current County General Plan policies and the OWMP include exemptions and/or reduced retention requirements for oak resource mitigation for both oak woodlands and individual oak trees. These exemptions are found in General Plan Policy 7.4.4.4, General Plan Policy 7.4.5.2 and the OWMP and include:

- Current General Plan Policy 7.4.4.4 exemptions include:
 - Areas within an approved Fire Safe Plan.
 - Areas in active agricultural cultivation.
- Current General Plan Policy 7.4.5.2 exemptions include removal of trees with trunk diameters less than 36 inches:
 - On lands in Williamson Act Contracts, Farmland Security Zone Programs, Agricultural Districts, designated Agricultural Land, and actions pursuant to a Fire Safe Plan.
 - On all single-family residential lots of 1 acre or less that cannot be further subdivided.
 - When a native oak is cut down on the owner’s property for the owner’s personal use.
 - When written approval has been received by the County Planning Department.

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- The OWMP includes exemptions and reduced retention requirements for the following projects or improvements:
 - Affordable Housing projects qualify for reduced oak woodland retention requirements.
 - County capital improvement projects (when new alignment is dependent on existing alignment) are exempt from oak woodland retention and replacement standards.
 - Vegetation management for compliance with California Public Utilities Commission (CPUC) regulations and maintenance of safe operation of utility facilities are exempt from oak woodland retention and replacement standards.

Several of the current exemptions are linked to state regulations, including those for fire safety and the requirements for maintaining defensible space around habitable structures in state responsibility areas (Public Resources Code (PRC) 4291). Public utility exemptions are intended to apply to state-level vegetation clearance requirements for transmission lines (CPUC General Order (GO) 95). Exemptions for agricultural cultivation are also included in the state-level oak woodland regulations (Kuehl Bill) and are consistent with other County policies to support and promote agriculture. Similarly, the Kuehl Bill addresses exemptions for affordable housing; however, these apply only to urbanized areas. The current OWMP does not exempt affordable housing from mitigating impacts to oak woodlands; however, it does reduce mitigation requirements for projects that include a minimum of 10% of very low-, lower-, and moderate-income housing units. These mitigation reductions could facilitate development of affordable housing units, as described in County General Plan objectives.

Other County exemptions from oak woodland retention and replacement standards include County capital improvement projects, which are projects intended to address road widening and realignments necessary to increase capacity, protect public health, and improve safe movement of people and goods in existing public rights-of-way. However, these projects are not exempt from individual oak tree removal and mitigation requirements. As described in the OWMP Status and Key Issues Memo (County of El Dorado, 2007), “removal of oak trees necessary to complete Capital Improvement Projects which affect the health and safety of the public in existing or future public road right-of-ways, or removal of oak trees necessary to comply with the safety regulations of the Public Utilities Commission and necessary to maintain a safe operation of utility facilities, within a public road right-of-way or utility easement, is exempt from oak canopy retention and replacement standards. An example of this exemption would be the removal of oak trees for an operational and safety road improvement project. This exemption to the oak tree canopy retention and replacement standards does not apply to new proposed roads within the County Circulation Element; to any road re-alignment projects or utility projects that propose to

remove significant oak trees within an oak woodland habitat; nor to internal circulation roads within new development.”

The remaining three exemptions are focused on individual tree impacts and exempt removal of individual trees less than 36 inches in trunk diameter. These include oak tree removal on single-family residential lots of 1 acre or less that cannot be further subdivided, oak tree removal for the property owner’s personal use, and oak tree removal conducted with written approval from the County Planning Department. No background information was found regarding these exemptions for individual oak tree removal.

Potential New Exemptions: In addition to the aforementioned existing exemptions, during its January 13, 2015 hearing, the Board suggested examining exemptions for public park, public building and public school projects from the oak resource mitigation requirements included in the General Plan. An evaluation of these potential project types was conducted and is presented below:

- **Public Parks:** Based on the information presented in the 2012 El Dorado County Parks and Trails Master Plan, four facilities are proposed for construction or development. Available planning data, parcel data, and oak woodland distribution data was evaluated to better understand the scale of potential impacts to oak resources resulting from these projects. A summary of each proposed facility and estimated oak resource impacts is presented below:
 - Railroad Park: Located in El Dorado, this park would encompass 6.3 acres plus and would include an expansion of an existing museum and train station and add a 2.2 mile trail connecting the park to Missouri Flat Road. The project site is located along the existing Sacramento Placerville Transportation Corridor and oak resources on site are concentrated primarily along the property boundaries. Project-related oak resource impacts are expected to be minimal, although some large oak tree removals may be necessary.
 - Cronan Ranch: Located in Pilot Hill, the County owns 62 acres of a 1,600-acre natural area which is held in public trust and to be used exclusively for recreation and wildlife conservation. The County-owned portion of the Ranch appears to contain only a small oak woodland located on a hilltop and a few scattered individual oak trees. Land easement language would limit County-directed development within its 62 acres and impacts to oak resources are expected to be minimal.
 - Bass Lake Regional Park: This park site consists of 40 acres of undeveloped land between Cameron Park and El Dorado Hills. Conceptual parks plan call for the development of a community center, ball fields, playgrounds, parking, disc golf,

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and other higher-intensity uses. The site is largely tree-less, although an oak woodland appears to be located in the site's northwest corner and scattered individual trees are located throughout the remaining park areas. Oak woodland impacts are expected to be less than 5 acres. Individual oak tree impacts may also be realized, depending on final site plan development, but are expected to be minimal.

- *Pollock Pines Community Park*: Proposed development at this 26-acre park in Pollock Pines includes ball fields, a playground, parking, restrooms, trails and an outdoor classroom amphitheater. Site planning documents identify that between 5 and 8 large oak trees (trunk diameters measuring between 28 and 52 inches) would require removal. There are a total of 11 large oak trees on the project site.
- ***Public Buildings***: The timing, funding and construction of public buildings are subject to decisions outside the scope of this analysis. To provide some data that the Board could consider related to an exemption for the construction of public buildings, properties owned by the County of El Dorado that contain oak woodlands were reviewed. Based on the County's GIS parcel data, the County owns 257 parcels totaling 1,321.3 acres that contain some oak woodland. The total woodland acreage within those properties is 536.9 acres. These acreage figures do not include the park properties described above.
- ***Public Schools***: Pursuant to the Public Resources and Government Code, school districts retain the authority to overrule local zoning and general plan land-use designations for schools, if specified procedures are followed. The County has little jurisdiction over construction of public schools and therefore tree removal regulation could not be enforced.

Recommendation: The recommended approach is to clarify the use of exemptions in most instances by combining similar exemptions for both oak woodlands and individual oak trees. Consistent with current standards, individual oak trees measuring or exceeding 36 inches in trunk diameter would be regulated under the Heritage Tree provisions. Under this recommendation, projects that are consistent with the exemptions in state regulations (Kuehl Bill and General Order 95) and specific County policies would be exempt from oak woodland and oak tree mitigation. Specific project types that could qualify for these exemptions include:

- Oak resource impacts in the County for maintaining defensible space in State Responsibility Areas (SRA), in accordance with Public Resources Code 4291;
- Oak resource impacts associated with agricultural cultivation/operations, whether for personal or commercial purposes, on land planned (AL, NR, RR, and Agricultural Districts [-A]) or zoned (AE, AP, A, PA, SA-10, RA, TPZ, and MR);

- Oak resource impacts associated with vegetation clearance requirements for transmission lines by public utility in compliance CPUC regulations(General Order 95); and
- Oak resource impacts for road widening and realignments necessary to increase capacity, protect public health, and improve safe movement of people and goods in existing public rights-of-way. This would not apply to new proposed roads within the County Circulation Element or to internal circulation roads within new development.
- Oak resource impacts incurred during emergency firefighting operations or when a tree exhibits high failure potential with the potential to injure persons or damage property, as documented by a certified or licensed professional.

It is also recommended that the reduction in mitigation requirements for affordable housing be maintained and applied for both oak woodland and oak tree impacts. In addition, and as discussed in Decision Point 4, it is recommended that the exemption for single-family residential lots of 1 acre or less that cannot be further subdivided be maintained and applied to both oak woodland and oak tree impacts. These recommendations are consistent with intent of this update process to provide policies that are self-implementing, do not need interpretation or clarification, and define the resources covered and types of development activities covered or, in this case, exempted.

No background information on the two remaining current exemptions for removal of individual oak trees for the property owner's personal use and with written approval from the County Planning Department was found. It is requested the Board provide direction on these exemptions. The information on the potential exemptions for public schools, parks and government buildings is also presented for the Board's consideration.

4.0 DECISION POINT 6: PRIORITY CONSERVATION AREA UPDATE (FOR OAK WOODLANDS)

Determine whether to update the Priority Conservation Areas (PCAs) related to Oak Woodlands.

Options: Options for this decision include updating the PCAs, leaving them as delineated in the 2008 OWMP, or leaving them as delineated in the 2008 OWMP and also establishing within the OWMP criteria that would be used to identify conservation lands outside of the PCAs.

Background: This decision point is focused on the PCAs as they relate to oak woodland mitigation and conservation. Another decision point will be presented to the Board in March 2015 that relates to the role of the PCAs and Important Biological Corridors (IBCs) in a conservation strategy for special-status species in the County. These decision points were separated as they naturally fit with the two other decision points related to oak resources being

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presented at the February 23, 2015 Board hearing and another decision point related to special-status species to be presented at the March 30, 2015 Board hearing.

Analysis: This decision point is presented to the Board because a preliminary analysis of the 2008 OWMP, the 2004 General Plan land use designations, and oak woodland distribution in the County reveals discrepancies that may warrant further analysis. Specifically, the 2008 OWMP identifies two different area totals for the size of the identified PCAs (approximately 40,000 acres and approximately 66,000 acres) while the 2004 General Plan EIR identifies approximately 175,000 acres of oak woodlands potentially impacted as a result of the development anticipated under the General Plan by the planning horizon year of 2025

The General Plan EIR discusses a General Plan Build-Out scenario that assumes development levels at the “theoretical maximum” capacity allowed under the General Plan land use designations. Specifically, this scenario assumes that all parcels are subdivided and developed to the maximum extent allowed, regardless of topography, resources, or County policies and ordinances. This build-out scenario is a maximum development projection and reflects much more development than would occur under the projected growth rate for the County, as determined by the California Department of Finance. The General Plan EIR also evaluates the projected development under a Planning Horizon year of 2025. This scenario is based on the Department of Finance growth projections and anticipates construction of 32,491 new residences and development that would support 42,202 new jobs within the County. The analysis of the PCAs, likely development, and ability to mitigate impacts is based on this Planning Horizon scenario rather than the theoretical maximum development under the build-out scenario.

The General Plan and OWMP require mitigation for oak woodland impacts at a 1 to 1 ratio or 2 to 1 ratio dependent upon the amount of onsite retention. The identified PCAs do not contain sufficient area to accommodate full mitigation of the amount of impact assumed in the General Plan EIR. The following discussion summarizes the original PCA development process and additional analysis Dudek has conducted in support of this decision point:

- ***Initial Development of PCAs:*** The PCAs were developed during preparation of the 2008 OWMP and were intended to identify “large expanses of contiguous oak woodland habitat where conservation easements may be acquired from willing sellers to offset the effects of increased habitat loss and fragmentation elsewhere.” This approach was consistent with General Plan Policy 7.4.2.8, which identifies habitat acquisition as a component of the County’s overall habitat protection strategy, which was to be established in the County’s Integrated Natural Resources Management Plan (INRMP).

Delineation of the PCAs was conducted using geographic information systems (GIS) tools, oak woodland habitat mapping data, and County parcel data. Large expanses of oak woodland habitat (500 acres or more) were identified outside of Community Regions,

Rural Centers, and lands designated as Low Density Residential in the 2004 General Plan. The PCAs are made up of 40-acre and larger privately-owned parcels (Figure 2) and cover a total area of 40,420 acres. The PCAs include land that carries the following General Plan land use designations: Agricultural Lands (11,690 acres), Low Density Residential (2.4), Medium Density Residential (27 acres), Natural Resources (12,644 acres), Open Space (459 acres), and Rural Residential (15,598 acres).

- ***Role of PCAs in Oak Woodland Mitigation:*** Identification of the PCAs was intended to guide the County’s acquisition of oak woodland habitat as mitigation for loss of oak resources. As provided in General Plan Policy 7.4.4.4 and the OWMP, project developers would have the option of retaining oak canopy onsite or mitigating impacts offsite. Offsite mitigation could be achieved by paying into the Oak Woodland Conservation Fund or by providing for dedication of a conservation easement on lands supporting oak woodland. The OWMP anticipated that once developers paid into the Oak Woodland Conservation Fund, the County would use the accumulated funds to acquire conservation easements in the PCAs. Each developer paying into the Oak Woodland Conservation Fund would be required to pay a fee sufficient to acquire and manage a conservation easement that would provide for mitigation of the onsite oak resource impacts.

For all offsite mitigation, conservation easements must be granted to the County in perpetuity. The OWMP notes that “priority should be given to conserving oak woodland habitat within PCAs adjacent to existing woodlands under or subject to anIBC, conservation easement, public lands, open space lands, riparian corridors, ecological preserves or other PCAs lying west of the National Forest.”

Additionally, the OWMP provides that conservation easements do not have to come from areas within the PCAs as long as the mitigation location is surveyed and determined to be of equal or greater biological value as the oak woodland proposed to be removed. Under the 2008 OWMP, this determination was required to be made based on consideration of “habitat elements such as snags, large woody debris, and the diversity and structure of the understory.”

- ***Additional Analysis of PCA Needs:*** Based on the discrepancy between potential oak woodland impact acreage identified in the 2004 General Plan EIR (approximately 175,000 acres) and PCA acreage identified in the 2008 OWMP (either approximately 40,000 or 66,000 acres), further analysis was conducted to determine the extent to which the PCAs may need to be updated. It should be noted that the 175,000 acre impact identified in the General Plan EIR is based on a calculation of all oak woodlands within ‘high’ and ‘medium’ intensity land use designations (as defined in the General Plan EIR, this includes all land use designations except natural resources and open space). This

methodology for calculating impacts likely over-predicts the actual impact area. Using GIS analysis tools, the following data sets were analyzed, processed, and compared:

- 2004 General Plan Land Use Designations: Consistent with the methodology used in the 2004 General Plan EIR, all General Plan land use designations not classified as either natural resources or open space were assumed to have an effect on biological resources.
- County-wide Slope Measurement Data: Using a digital terrain data set, the County was classified into two slope categories: greater than 30% or less than or equal to 30%. This classification was completed to determine developable area in the County, consistent with General Plan Policy 7.1.2.1, which prohibits development or disturbance on slopes in excess of 30%, with some exceptions.
- Oak Woodland Distribution Data: The most current oak woodland distribution data available from CAL FIRE's Fire and Resource Assessment Program (FRAP 2006) was compared with the County-wide slope measurement data and the General Plan land use designations. The data was then analyzed and potential oak woodland impact area refined.
- PCA and IBC Data: The currently-delineated boundaries of the PCAs and IBCs were also compared with oak woodland distribution and land use designation data to identify the total amount of oak woodland habitat within the PCAs and IBCs. This information indicates the amount of woodland available for mitigation. It is noted that the PCAs contain very little land that is designated for moderate or high intensity development other than rural residential land uses, while the IBCs contain approximately 26,975 acres of land that are designated for low and medium density residential, commercial, industrial, and other moderate to high intensity land uses. While it is likely that much of the land in the PCAs would not be intensively developed, there is potential that some of the oak woodland within the IBCs could be lost to development. However, for the purposes of this analysis, it is assumed that all of the oak woodlands within the IBCs would remain available for conservation to mitigate impacts from development elsewhere in the County. At the time that development restrictions and/or standards for the IBCs are developed, additional analysis of the potential for oak woodlands within the IBCs to be available for conservation will be conducted.

By evaluating the oak woodland data set with the land use designation, slope, and PCA/IBC data sets, a comparison between projected oak woodland impacts and available oak woodland mitigation area within the PCAs and IBCs could be completed. A summary of this evaluation is presented in Table 5.

**Table 5
Oak Woodland Impact and Conservation Summary Table**

Oak Woodland Type	Total in County (acres)	High and Medium Intensity Impacts (Slopes > 30% and excluding PCAs and IBCs) (acres)	High and Medium Intensity Impacts (Slopes ≤ 30% and excluding PCAs and IBCs) (acres)	Total in Priority Conservation Areas (acres)	Total in Important Biological Corridors (acres)	Total PCA and IBC (acres)
Blue Oak Woodland	42,614	2,741	18,903	10,774	6,772	17,546
Blue Oak-Foothill Pine	12,915	983	5,870	1,557	2,643	4,200
Coastal Oak Woodland	13	0	13	0	0	0
Montane Hardwood	161,152	12,977	50,433	23,975	31,160	55,135
Montane Hardwood-Conifer	37,661	3,046	10,468	2,787	3,323	6,110
Valley Oak Woodland	3,434	55	2,133	310	809	1,119
Total:	257,789	19,801	87,820	39,403	44,707	84,110

As presented in Table 5, up to 87,820 acres of oak woodland may be impacted under the General Plan Planning Horizon development scenario. This total excludes oak woodland areas on slopes greater than 30% slope as well as high and medium intensity impact areas located within the PCAs or IBCs. Oak woodlands with slopes greater than 30% were excluded from the calculated oak woodland impact total as development of these areas is expected to be minimal. Oak woodlands within the PCAs and IBCs were also excluded from the calculated oak woodland impact total as these areas were assumed to be used for conservation purposes. However, as noted above, there is potential for some of the oak woodlands in the PCAs and IBCs to be lost to development. That would reduce the amount of oak woodland currently mapped as being available for conservation and the County and/or project developers would need to find additional lands for conservation.

Collectively, the PCAs and IBCs encompass 84,110 acres of oak woodland that may be available for conservation to mitigate impacts to oak woodlands resulting from implementation of the General Plan. This is approximately 96% of the total anticipated impacts to oak woodlands. However, the General Plan requires that impacts to oak woodland that are mitigated through offsite conservation be mitigated at a 2:1 ratio, if onsite retention goals for oak resources are not met. If no future development projects provide for any amount of onsite oak woodland retention, the County would need more than twice as much land as is currently included in the PCAs and IBCs to provide for mitigation of oak woodland impacts.

To the extent that projects retain oak woodland habitat onsite, the total anticipated impacts to oak woodlands and amount of offsite mitigation required would be reduced. Additionally, the OWMP allows for project developers to identify offsite mitigation

opportunities that are outside of the PCAs and IBCs. These factors would reduce the amount of conservation land needed within the PCAs and IBCs. While these factors indicate that it would not be necessary to expand the PCAs and IBCs to provide for 2:1 mitigation of the full 87,820 acres of oak woodland impact anticipated with General Plan implementation, it is likely that some additional conservation land would be needed.

- ***Addressing the Shortfall in Conservation Area:*** As noted above, there are three primary options for addressing the shortfall in the amount of conservation areas relative to the amount of anticipated impact. The County could update and expand the mapped PCAs; the County could determine that the existing provisions in the OWMP are sufficient to allow for identification of additional conservation areas as needed; or the County could modify the OWMP to provide more direction and specific criteria for identifying additional conservation areas as needed. Each option is briefly discussed below:
 - *Update and Expand Mapped PCAs:* This would require additional GIS analysis to identify large areas of oak woodlands that could be used for conservation. The prior PCA mapping effort limited the PCAs to areas with a minimum of 500 contiguous acres of woodland and parcels with a minimum size of 40 acres. To map additional PCA areas, these standards would have to be reduced so that more land would qualify as a PCA. Finally, maps of the additional PCA areas would be prepared and presented to the Board for adoption. This would require a large effort from County staff and/or consultants and could raise landowners concerns regarding having their land officially mapped as potentially being used for conservation.
 - *Determine Existing OWMP Provisions are Sufficient:* As noted above, the 2008 OWMP allows for land outside of the PCAs to be used for conservation. However, the OWMP states that the County must first determine the land is appropriate for conservation and for mitigating the impacts of a particular project by surveying the mitigation location and determining that it is of equal or greater biological value as the oak woodland proposed to be removed. This determination would be made based on consideration of “habitat elements such as snags, large woody debris, and the diversity and structure of the understory” and comparing these features of both the project site and the proposed mitigation site. This does provide project developers flexibility in meeting their mitigation requirements and ensures that the County will not have to rely entirely on the PCAs for conservation. However, the process and standards for determining that a mitigation location is acceptable do not include any objective or measureable metrics and therefore may be subject to interpretation and inconsistent implementation.

- Retain the Existing PCAs and Identify Specific Criteria for Approving Additional Conservation Areas: The County could expand on the existing provisions in the OWMP that allow for developers to identify conservation opportunities outside of the PCAs. This could be accomplished by defining specific criteria that must be met by these additional conservation lands. Providing more specific, quantifiable standards could help to streamline the process of approving additional conservation areas, eliminate the need for interpretation, and ensure consistent implementation for all projects. Should the Board direct that additional criteria be developed, draft criteria would be presented to the Board with the draft updated General Plan policies. The following are some preliminary concepts that could be included in such criteria:
 - Minimum parcel size of 20 acres (in contrast the existing PCAs were developed using a minimum parcel size of 40 acres);
 - Woodlands shall be diverse in age structure and includes large trees and dense canopies;
 - There are opportunities for active land management to be used to enhance or restore natural ecosystem processes; and
 - Has the potential to support special-status species;

Recommendation: To better provide for availability of oak woodland habitats suitable for conservation, retain the PCAs shown in the 2008 OWMP and establish criteria for identifying additional conservation areas (third bullet above).

5.0 DECISION POINT 7: SPECIAL-STATUS RESOURCE MITIGATION REQUIREMENTS

Determine appropriate mitigation requirements specific to each category of special-status resources (e.g., vegetation communities, plants, wildlife) for inclusion in policies.

Options: Determine whether General Plan policy should incorporate mitigation ratios for special-status biological resources, including vegetation communities, plants and wildlife or determine that pre-determined minimum mitigation ratios are not necessary.

Analysis: Current General Plan Policy 7.4.2.8 outlines an approach to identify important habitat in the County and establish a program for effective habitat preservation and management. The program would develop a conservation strategy that conserves:

- Habitats that support special-status species;

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- Aquatic environments including streams, rivers, and lakes;
- Wetland and riparian habitat;
- Important habitat for migratory deer herds; and
- Large expanses of native vegetation.

Per the current policy, the goal of the conservation strategy is to conserve and restore contiguous blocks of important habitat to offset the effects of increased habitat loss and fragmentation elsewhere in the County. This goal and strategy would be accomplished through implementation of the County's Integrated Natural Resources Management Plan (INRMP), which the County has determined is not a viable option.

Through selection of the mitigation/conservation approach, the County has directed Dudek to evaluate other options to meet the goal of the conservation strategy in lieu of implementing the INRMP. To that end, we are evaluating the effectiveness of establishing mitigation ratios for special-status biological resources, including vegetation communities, plants, and wildlife.

Dudek assumes that the categories of special-status resources will be the same as those defined in the County's General Plan EIR. Based on Board direction, Dudek will provide draft General Plan policies that define County mitigation requirements specific to special-status resources (e.g., vegetation communities, plants, wildlife).

Because the status of individual species can change as frequently as every six months, and because the status of vegetation communities is also updated periodically, the special-status biological resources are defined by categories utilized by resource agencies rather than individually listed in the policy. The approach described below is consistent with Appendix G of the California Environmental Quality Act (CEQA) Guidelines.

Special-status Plants and Wildlife: Consistent with the General Plan EIR (updated to reflect current terminology, special-status species include plants and animals in the following categories:

- Species listed or proposed for listing as Threatened or Endangered under the federal Endangered Species Act (ESA) or the California Endangered Species Act (CESA);
- Species considered as candidates for listing as Threatened or Endangered under ESA or CESA;
- Wildlife species identified by California Department of Fish and Wildlife (CDFW) as Species of Special Concern;
- Wildlife species identified by US Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) as Species of Concern;
- Plants listed as Endangered or Rare under the California Native Plant Protection Act;

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- Animals fully protected under the California Fish and Game Code;
- Plants that have a California Native Plant Society (CNPS) California Rare Plant Rank (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 CRPRs are used by both CDFW and USFWS in their consideration of formal species protection under ESA or CESA.

Sensitive Vegetation Communities: Consistent with the General Plan EIR (and updated to reflect current terminology, status and available data), 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 would be 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 Fire Resource Assessment Program (FRAP) land cover data (CDF-FRAP 2002) 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. Using the 2006 FRAP data, the following general CWHR categories occur within the County:

- Agriculture
- Barren/Other
- Conifer Forest
- Hardwood Forest

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- Hardwood Woodland
- Herbaceous
- Shrub
- Urban
- Water
- Wetland

In some cases sensitive habitats in 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 sensitive habitats in the *List of Vegetation Alliances and Associations* are generally described at a more specific level of classification than the major (e.g., broad scale) habitat types from the FRAP land cover data. 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).

Based on the special-status species criteria described above, Dudek developed a list of special-status species potentially occurring within the County. Dudek reviewed the FRAP (2006) land cover data in the context of habitat for the potentially occurring special-status species within the County. 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. We propose to include mitigation measures for those special-status species habitats (e.g., chaparral, grassland) in addition to the S1-S3 sensitive habitats in order to ensure that the current range and distribution of special-status species within the County are maintained following implementation of the General Plan. In addition to assisting project applicants with identifying mitigation at the project level, this will facilitate analysis of cumulative impacts to biological resources within the County.

With the exception of oak woodlands, which would be mitigated at varying ratios depending on the level of on-site avoidance (see Decision Point 4 above), preservation of the following upland CWHR categories is suggested at a ratio of 1:1 to ensure that the current range and distribution of special-status species within the County are maintained:

- Conifer Forest
- Hardwood Forest
- Hardwood Woodland
- Herbaceous
- Shrub

For the following wetland CWHR categories we suggest creation at a ratio of 1:1 to ensure that the current range and distribution of special-status species within the County are maintained:

- Water

- Wetland

In addition to creation, we suggest preservation at a ratio of 1:1 for herbaceous wetlands, and 2:1 for shrub and tree wetlands to mitigate for temporal loss (the time required for planted shrub and tree wetland to replace the functions lost).

Alternatively, the County may determine that mitigation ratios are not necessary. In this case the project applicant may identify significant impacts to special-status biological resources associated with a particular project, and identify proposed mitigation measures for the County to evaluate.

Recommendation: Using mitigation ratios for special-status biological resources, including vegetation communities, plants, and wildlife as a method of meeting the goal of the conservation strategy. This will be further facilitated by evaluation of Decision Points 8, 9 and 10:

8: IBC Standards

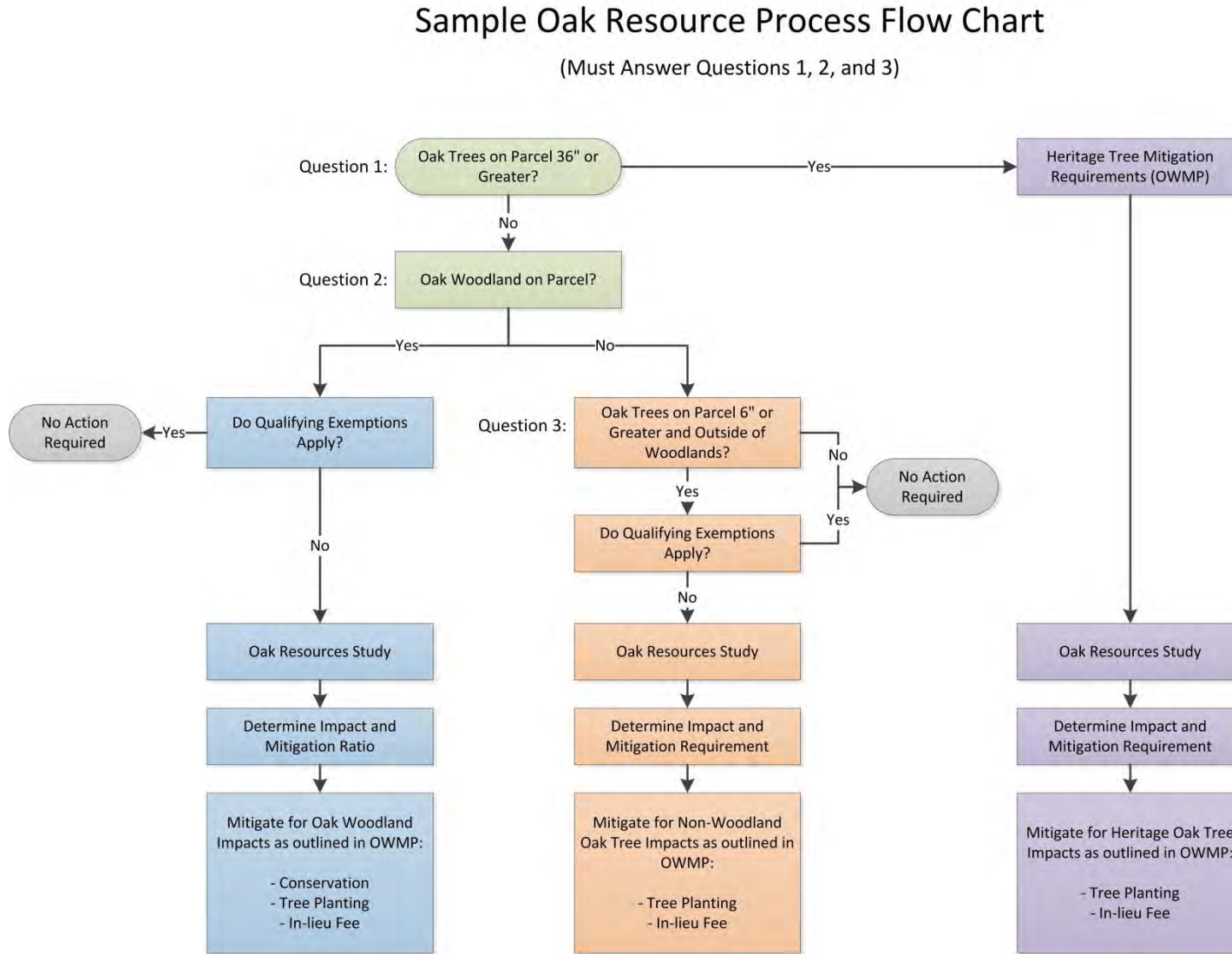
9: Ecological Areas In PCAs and IBCs

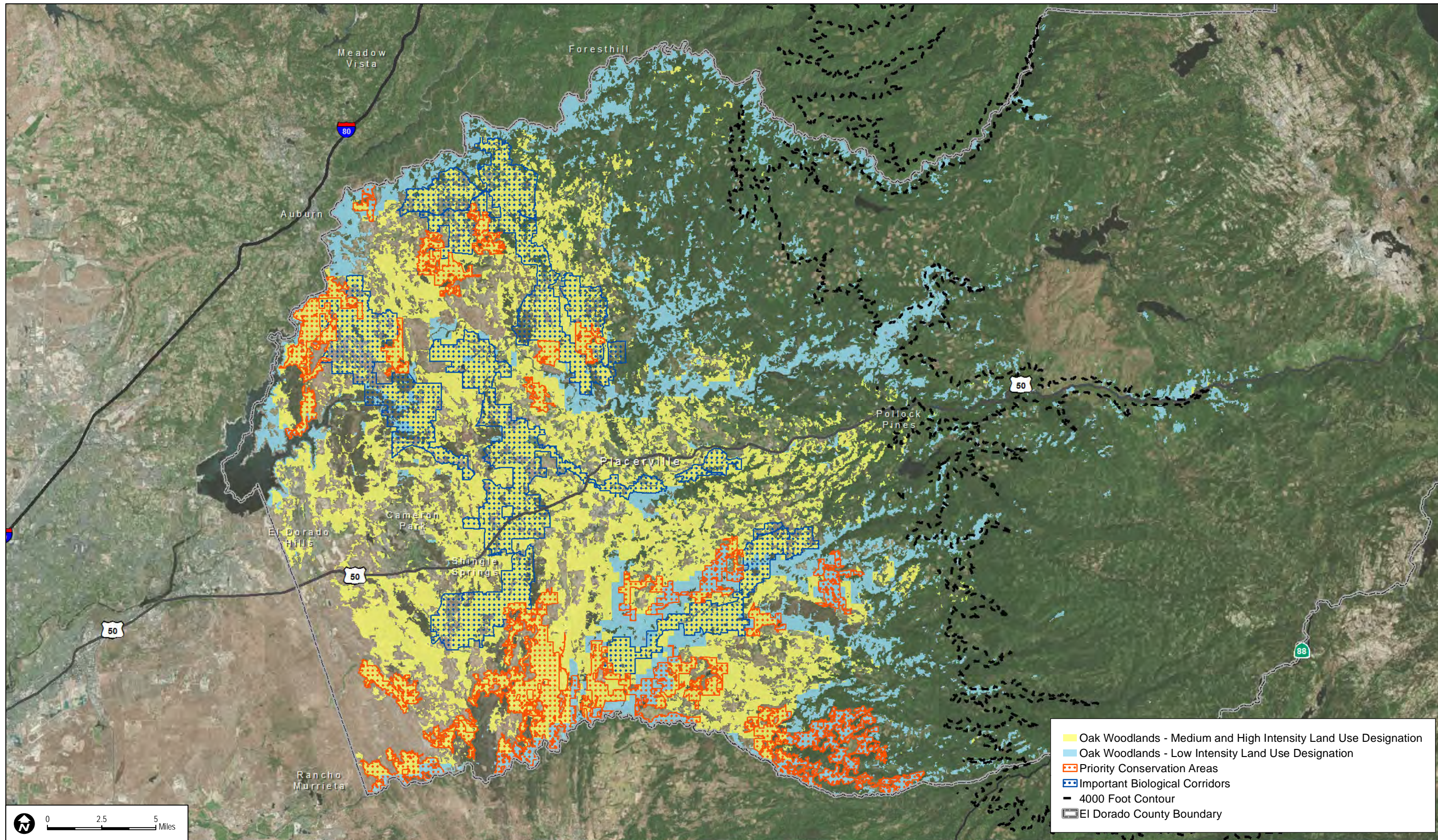
10: Database of Willing Sellers

This recommendation is consistent with current General Plan Policies 7.4.1.1 through 7.4.1.5., 7.4.1.7, 7.4.2.1 through 7.4.2.6, and 7.4.2.9, and would result in minor revisions to current General Plan Policies 7.4.1.6 (which relies on the INRMP to define mitigation for impacts to important habitats) and 7.4.2.7 (which requires the formation of the Plant and Wildlife Technical Advisory Committee (PAWTAC)).

In order to evaluate project-specific impacts, applicants for discretionary projects would be required to provide to the County a biological resources technical report which will identify and map vegetation communities and special-status plants in accordance with the CDFG 2009 *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* and subsequent updates, and will be consistent with the *List of Vegetation Alliances and Associations* (CDFG 2010) and subsequent updates. The biological resources technical report will also be required to identify special-status species (as defined above and as subsequently updated) known to occur or potentially occurring on site.

Figure 1. Sample Oak Resource Process Flowchart





- Oak Woodlands - Medium and High Intensity Land Use Designation
- Oak Woodlands - Low Intensity Land Use Designation
- Priority Conservation Areas
- Important Biological Corridors
- 4000 Foot Contour
- El Dorado County Boundary

MEMORANDUM

To: Shawna Purvines, Principal Planner, El Dorado County
From: Cathy Spence-Wells, Principal
Subject: Biological Resources Policy Update Decision Points 8 through 10
Date: March 20, 2015
Attachment(s): Figure 1

1.0 INTRODUCTION

At the Board of Supervisors hearing on January 13, 2015, the approach, timeline, and 10 Decision Points for the Biological Resources Policy Update project were presented to the Board for approval. The Board generally agreed with the steps and timeline proposed to update the General Plan biological resources policies. As summarized below, the Board has provided direction on Decision Points 1 through 7. This memo provides a detailed analysis of Decision Points 8 through 10 to facilitate the Board's discussion of these final Decision Points.

During the January 13, 2015 hearing, Decision Point 1 was presented to the Board and direction was given to prepare an AB 1600 Fee Nexus Study and revise the in-lieu fee with updated methodology, assumptions, and property values. At the January 26, 2015 hearing, Decision Points 2 and 3 were presented to the Board and direction was given to use oak woodland as the method for determining oak woodland impacts and necessary mitigation (Decision Point 2) and to revise the General Plan policy language to require wildlife movement studies to evaluate project-specific impacts on public safety and wildlife for projects that include new roads of 4 or more lanes or the widening of roads to 4 or more lanes (Decision Point 3). Decision Points 4-7 were presented to the Board at the February 23, 2015 hearing. For Decision Point 4, direction was given to revise the minimum parcel size criteria for projects to be exempt from oak woodland mitigation and to update the oak woodland retention standards and mitigation ratios. Direction given on Decision Point 5, was to clarify the use of exemptions and the definition of a Heritage Tree. The Board's direction on Decision Point 6 was to retain the Priority Conservation Areas (PCAs) shown in the 2008 Oak Woodlands Management Plan (OWMP) and establish criteria for identifying additional conservation areas. Decision Point 7 direction was to use mitigation ratios for special-status biological resources, including vegetation communities, plants, and wildlife as a method of meeting the goal of the conservation strategy.

2.0 DECISION POINT 8: IMPORTANT BIOLOGICAL CORRIDOR OVERLAY STANDARDS

Determine specific standards applicable to development within the Important Biological Corridor (IBC) overlay, such as minimum parcel size, contiguous areas, and minimum corridor widths.

Options: Determine whether to incorporate specific standards for project review in the IBC overlay as described in Policy 7.4.2.9 or establish a performance-based approach for project review with the IBC overlay.

Analysis: This discussion considers current General Plan policy requirements related to the IBC overlay, state and regional data and analysis of the need for providing habitat connections and movement corridors, and prior analysis of the potential effect of land development in the County on wildlife movement patterns.

The current IBC overlay includes 64,600 acres, linking 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. As described in the 2004 General Plan EIR, the strength of the IBC overlay standards will determine the effectiveness of the IBCs at conserving habitat in configurations and amounts sufficient to maintain habitat connectivity and wildlife movement opportunities.

Current County Requirements

General Plan Policy 7.4.2.9 provides that the IBC overlay shall apply to areas in the County that include high wildlife habitat value, function, and connectivity and requires that lands within the IBC be subject to certain general provisions. Further, Implementation Measure CO-N requires the review and update of the IBC overlay designation.

As described in the 2004 General Plan environmental impact report (EIR), the IBC overlay could, depending on the strength of the IBC overlay standards selected:

- Preserve opportunities for north-south movement by large terrestrial mammals through areas dominated by high- and medium-intensity land uses;
- Link the two largest polygons on the Ecological Preserve overlay;
- Protect a portion of the Weber Creek canyon and other major watercourses;
- Preserve some of the County's most valuable and pristine low-elevation habitat; and
- Comprise the first step toward a multicounty regional corridor that could benefit wildlife and preserve wildlife habitat over a large region of the Sierra foothills, because the proposed corridor crosses the entire western section of the county.

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General Plan Policy 7.4.2.9 states that development within the IBCs shall be subject to the following general provisions, however it is noted that these provisions have not been incorporated into the County's Zoning Ordinance:

- 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 Wildlife (CDFW));
- 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).

Currently in accordance with General Plan Policy 7.4.2.9, lands that are subject to the Agricultural District (A) overlay or that are within the Agricultural Lands (AL) designation are exempt from the land use restrictions associated with the IBC policies, provided the agricultural practices do not interfere with the purposes of the IBC overlay.

General Plan Policy 7.4.2.2 also addresses the issue of wildlife movement. While it is not specific to properties within the IBCs, it requires that "critical wildlife areas and migration corridors" identified during project review must be retained onsite and protected from degradation. The policy specifies this should occur through clustering and/or density transfers.

The County adopted interim interpretive guidelines for General Plan Policy 7.4.4.4 (Option A), adopted November 9, 2006 and amended October 12, 2007. Under these interim guidelines, projects within an IBC overlay or Ecological Preserve overlay (EP), whether ministerial or discretionary, that propose the removal of oak canopy cover, require submittal of Oak/Canopy Site Assessment Form,

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tree survey, biological report addressing the requirements of Policies 7.4.2.9 and 7.4.1.4, and an Important Habitat Mitigation Program. Such projects also require review by the Planning Commission to ensure consistency with the requirements of Policies 7.4.2.9 and 7.4.1.4.

The County also adopted interim interpretive guidelines for General Plan Policy 7.3.3.4, adopted June 22, 2006. In accordance with interim guidelines, a minimum setback of 100 feet from all perennial streams, rivers and lakes and 50 feet from intermittent streams and wetlands are required for projects within an IBC. A request for alternative setbacks would be considered by the Planning Commission as a policy determination. In this case, the project would require a biological report that addresses all of the provisions of General Plan Policy 7.4.2.9. In order to approve an alternative setback for a project within an IBC, the Planning Commission must consider all the evidence, conduct a public hearing and make all of the findings prescribed in County Code Section 17.22.630 (Variances) as well as conclude, based on substantial evidence, that the alternative setback would be consistent with the General Plan.

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 Project (CEHC) (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

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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 extending 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 above 4,000 feet ASL) 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 (Figure 1).

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 (USGS), 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 various 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

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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 NF 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 US 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 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 (above 4,000 feet ASL) 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, bobcat, mule deer, American black bear, 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.

Effects of Development on Regional Habitat Connectivity and Wildlife Movement

In their paper titled *The Potential Impacts of Development on Wildlands in El Dorado County, California*, Saving and Greenwood (2002) modeled the 1996 County General Plan and parcel data with various combinations of development constraints (e.g., slope, oak canopy retention, stream buffers, existing development, regional clustering, public ownership and acquisition programs). They used these models to predict habitat loss and fragmentation of natural vegetation communities. Saving and Greenwood (2002) found that constraining land uses in various combinations would result in two contiguous patches of wildlife habitat in El Dorado County, located to the north and south, respectively, of US 50. Saving and Greenwood (2002) identified a scenario to connect the northern and south wildlands: restrict select parcels from development in key areas. Specifically, they identified several vacant parcels in the Indian Creek canyon area in proximity to US 50. By modeling development restrictions for oak woodlands in this area, they were able to model a north-south connection with some parcels still compatible with development.

Possible IBC Overlay Standards

The IBCs are consistent with the modeling conducted in the CEHC (Spencer et al. 2010), Penrod et al. (2001), and Saving and Greenwood (2002). The models do consistently emphasize the importance of a north-south corridor. The recommendation below for IBC overlay standards would provide for protection and preservation of any existing north-south wildlife movement corridors within the IBCs. In addition, it may be possible to take advantage of restrictions on development opportunities due to natural features (slopes and streams) in order to preserve a north-south corridor between Shingle Springs and Placerville, such as in Weber Creek canyon, Indian Creek canyon, and/or the Greenstone area.

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The Saving and Greenwood (2002) models demonstrate that constraining land uses in various combinations (stream setback widths, percentage of oak retention, percentage of wetland retention, etc.) would consistently result in two contiguous patches of wildlife habitat – one to the north and one to the south of US 50. This demonstrates that applying specific criteria for the general provisions listed in General Plan Policy 7.4.2.9 (see above) would not lead to preservation of a north-south movement corridor and therefore Dudek is not recommending establishing criteria for the draft provision categories listed in. Rather the emphasis in Dudek’s recommendation is on retaining the existing habitat functions and values within the IBCs and establishing a north-south connection between the two contiguous patches of wildlife habitat.

Below are suggested IBC overlay standards for discretionary projects based on available research and on examples from surrounding counties.

- A site-specific biological resources technical report (described below) will determine the presence of special-status species or habitat for such species that may be affected by a proposed project as well as the presence of wildlife corridors particularly those used by large mammals such as mountain lion, bobcat, mule deer, American black bear, and coyote. Based on the results of the biological resources technical report, land use siting and design tools shall be implemented to achieve the objective of no net loss of habitat function or value for special-status species, as well as large mammals such as mountain lion, bobcat, mule deer, American black bear, and coyote.
- Potentially establish standards specific to a north-south corridor in the Weber Creek canyon, Indian Creek canyon, Slate Creek canyon, and/or the Greenstone area.

In order to evaluate project-specific compatibility with the IBC overlay, applicants for discretionary projects would be required to provide to the County a biological resources technical report that identifies and maps vegetation communities and special-status plants in accordance with the California Department of Fish and Game (CDFG (re-named to the California Department of Fish and Wildlife in 2013)) 2009 *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* and subsequent updates, and is consistent with the *List of Vegetation Alliances and Associations* (CDFG 2010) and subsequent updates. The biological resources technical report would also be required to identify special-status species (as defined in Decision Point 7) known to occur or potentially occurring on-site. The results of the biological resources technical report shall be used as the basis for establishing project-specific land use siting and design measures necessary to achieve the objective of no net loss of habitat function or value for special-status species, as well as large mammals such as mountain lion, bobcat, mule deer, American black bear, and coyote.

Properties within the IBC that are found to support wildlife movement would be required to provide mitigation to ensure there is no net loss of habitat/wildlife movement function and value.

Mitigation could occur through project design, such as use of clustering, to retain the portion of the site that provides the wildlife corridor. It could also occur by obtaining conservation easements on adjacent property that could also support wildlife movement and is contiguous with the existing wildlife corridor.

Identification of a north-south connection between the two modeled contiguous patches of wildlife habitat north and south of US 50 could support the County in achieving the goal of current Policy 7.4.2.9. Four potential US 50 crossings (three creeks and one road) between Placerville and Shingle Springs are being considered. Factors in this analysis could include location within IBCs, topography, and level of development.

Recommendation: Revise General Plan Policy 7.4.2.9 to remove currently-identified provisions and replace those provisions with the IBC overlay standards identified above for lands that occur within the IBCs to address wildlife habitat value, function, and connectivity.

This will contribute towards meeting the goal of the conservation strategy, and be further facilitated by evaluation of Decision Points 7, 9 and 10:

7: Special-Status Resource Mitigation Requirements

9: Ecological Areas In PCAs and IBCs

10: Database of Willing Sellers

This recommendation is consistent with current General Plan Policies 7.4.1.1 through 7.4.1.5 and 7.4.1.7; 7.4.2.1 through 7.4.2.6, and 7.4.2.9; and would result in minor revisions to current General Plan Policies 7.4.1.6 (which currently relies on preparation of the Integrated Natural Resources Management Plan (INRMP) to define mitigation for impacts to important habitats), 7.4.2.7 (which currently requires the formation of the Plant and Wildlife Technical Advisory Committee (PAWTAC)), and 7.4.2.8 (which currently requires the development of the INRMP).

3.0 DECISION POINT 9: IMPORTANT ECOLOGICAL AREAS

Determine which important ecological areas identified by the Plant and Wildlife Technical Advisory Committee (PAWTAC) (e.g., aquatic environments, important habitat for migratory deer herds, Pine Hill areas, valley oak woodland, etc.) to include with the PCAs and Important Biological Corridors (IBC) as we develop a conservation strategy.

Options: Determine whether General Plan policy should incorporate other important ecological areas in addition to the PCAs and IBCs to form the basis for the County's conservation strategy or rely primarily on PCAs and IBCs.

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Analysis: This decision follows the February 23, 2015 Board decision regarding Decision Point 4, to establish a two-tiered oak mitigation approach; Decision Point 6, to retain PCAs as delineated in the 2008 OWMP and establish within the OWMP criteria that would be used to identify conservation lands outside of the PCAs; and Decision Point 7, which established mitigation ratios for special-status biological resources, including vegetation communities, plants, and wildlife.

Current General Plan Policy 7.4.2.8 outlines an approach to identify important habitat in the County and establish a program for habitat preservation and management. The program would develop a conservation strategy that conserves:

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

Per the current policy, the goal of the conservation strategy is to conserve and restore contiguous blocks of important habitat to offset the effects of increased habitat loss and fragmentation elsewhere in the County. Under the existing General Plan policies, this goal and strategy would be accomplished through development and implementation of the County's INRMP. However, the biological resource policy update project will include modifications to General Plan policies to remove the requirement to prepare an INRMP. This is consistent with conservation/mitigation approach selected by the Board during the October 7, 2014 hearing. In the absence of an INRMP, the updated biological resource policies are expected to outline a program for habitat preservation and management.

Background

Beginning in September 2006, the County worked to implement Policy 7.4.2.8 by retaining consultants to conduct a public workshop process, preparing a work program for development of the INRMP, retaining consultants to prepare the INRMP, and convening two advisory committees—the INRMP Stakeholders Advisory Committee (ISAC) and the PAWTAC. The purpose of the ISAC is to provide recommendations to County staff, the Planning Commission, and the Board 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 Board on plant and wildlife issues and is formed of local experts in the field. County staff also reviewed and updated the Initial Inventory based on newer and more accurate GIS layers, inventoried existing regulatory constraints related to important habitat, prepared a

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Protected Lands Map, and compared the Initial Inventory and Protected Lands maps with the County's Land Use designations. In 2008, the Board directed that the boundary of the Study Area for the INRMP was set at the 4,000-foot contour.

On April 1, 2008, the Board adopted the INRMP Initial Inventory and Mapping, satisfying the requirements of General Plan Measure CO-M (the Habitat Inventory). 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. In 2010, the Board adopted the Updated INRMP Initial Inventory and Mapping and accepted both the Indicator Species Report and the Wildlife Movement and Corridor Report.

In September 2102, the Board of Supervisors directed that the General Plan biological resources policies should be updated. As part of that process the Board considered several options or approaches for updating those policies. At the Board hearing on October 7, 2014, the Board directed staff to proceed with Policy Option 3 (Mitigation/Conservation option). Under Policy Option 3, the intent is to amend the General Plan policies to redefine the County's program for management of and mitigation for biological resource impacts. Through selection of the mitigation/conservation approach, the County has directed Dudek to evaluate other options to meet the goal of the conservation strategy in lieu of implementing the INRMP.

Conservation Strategy

We are evaluating the effectiveness of the PCAs and IBCs, together with the important biological areas, in supporting sufficient quantities and configurations of vegetation communities to support the County's conservation strategy established through Decision Points 4, 6 and 7.

Dudek estimated impacts to California Department of Forestry and Fire Protection's (CAL FIRE) Fire and Resource Assessment Program (FRAP) vegetation communities using the high and medium intensity land use categories as described in the 2004 General Plan EIR Biological Resources chapter. The PCAs and the IBC overlay do not in and of themselves support sufficient acreages of vegetation communities to achieve the mitigation ratios established through Decision Points 4, 6 and 7. The important ecological areas identified by the PAWTAC (e.g., aquatic environments, important habitat for migratory deer herds, Pine Hill areas, valley oak woodland, etc.) could be prioritized to supplement the contributions of the PCAs and IBC overlay towards meeting the County's goals for management of special-status resources.

Consistent with the Board's direction on Decision Point 6, the County could allow developers to identify conservation opportunities outside of the PCAs and IBCs, within or outside of important ecological areas. This could be accomplished by defining specific criteria that must be met by these additional conservation lands. Providing more specific, quantifiable standards could help to streamline the process of approving additional conservation areas, eliminate the need for

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interpretation, and ensure consistent implementation for all projects. Should the Board direct that additional criteria be developed, draft criteria would be presented to the Board with the draft updated General Plan policies. The following are some preliminary concepts that could be included in such criteria:

- Prioritization of important ecological areas identified by the PAWTAC;
- Minimum parcel size of 20 acres;
- Woodland, forest and shrub communities shall be diverse in age structure;
- Woodland and forest communities shall include large trees and dense canopies;
- There are opportunities for active land management to be used to enhance or restore natural ecosystem processes; and
- Has the potential to support special-status species.

As described for Decision Points 7 and 8, a site-specific biological resources technical report will determine the presence of special-status biological resources that may be affected by a proposed discretionary project. Vegetation communities and special-status plants would be mapped and assessed in accordance with the CDFG 2009 *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* and subsequent updates, and will be consistent with the *List of Vegetation Alliances and Associations* (CDFG 2010) and subsequent updates. The results of the biological resources technical report shall be used as the basis for establishing mitigation requirements in conformance with the County's conservation strategy.

Recommendation: Rather than expand the PCAs and IBCs, allow developers to identify conservation opportunities outside of the PCAs and IBCs, within or outside of important ecological areas. Define specific criteria that must be met by these additional conservation lands, including criteria that prioritize use of the important ecological areas identified in the INRMP Initial Inventory and Mapping (adopted by the Board in 2008 and again in 2010).

This will contribute towards meeting the goal of the conservation strategy, and be further facilitated by evaluation of Decision Points 7, 8, and 10:

7: Special-Status Resource Mitigation Requirements

8: Specific standards for the IBC overlay

10: Database of Willing Sellers

This recommendation is consistent with current General Plan Policies 7.4.1.1 through 7.4.1.5 and 7.4.1.7; 7.4.2.1 through 7.4.2.6, and 7.4.2.9; and would result in minor revisions to current General Plan Policies 7.4.1.6 (which relies on the INRMP to define mitigation for impacts to

important habitats), 7.4.2.7 (which requires the formation of the PAWTAC), and 7.4.2.8 (which requires the development of the INRMP).

4.0 DECISION POINT 10: DATABASE OF WILLING SELLERS FOR CONSERVATION EASEMENTS

Define the County's requirements for maintaining a database of willing sellers within PCAs and IBCs and/or other important biological areas.

Options: Determine whether General Plan policy should incorporate specific requirements related to the County's creation and maintenance of a database of willing sellers within the PCAs and IBCs and/or other important biological areas or determine that such a database is not necessary.

Analysis: The database of willing sellers is seen as a supporting component to facilitating identification of appropriate mitigation land for acquisition, either by developers, the County, and/or a third-party land conservancy or other appropriate non-governmental organization in implementation of the County's conservation strategy, including the OWMP. The General Plan policy and associated implementation measures would define the key characteristics of this database program.

The database could be generated by various combinations of methods including:

- Passive voluntary program (no solicitation on County's part).
- Active solicitation of interested land owners whereby the County sends mailers/contacts parcel owners within PCAs and IBCs and/or other important biological areas, and/or those areas meeting the selection criteria for additional conservation areas as defined in Decision Points 4 and 9. Parcel owners would be informed of the intent of the database and could be asked either to opt-in or to opt-out of the database.

The database could include the following information:

- Property owner name
- Assessor Parcel Number
- Parcel acreage
- General vegetation communities from FRAP database

A passive voluntary program is not expected to generate an extensive list of willing sellers. However, an active solicitation program may raise concerns from property owners regarding property rights.

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Subject: Biological Resources Policy Update Decision Points 8 through 10

Recommendation: Incorporate within General Plan policy a requirement that the County establish a database of willing sellers within the PCAs, IBCs, and other important biological areas. Further, require that the County manage the database as a voluntary program wherein landowners must opt-in to being included in the database by contacting the County.

5.0 REFERENCES

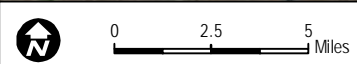
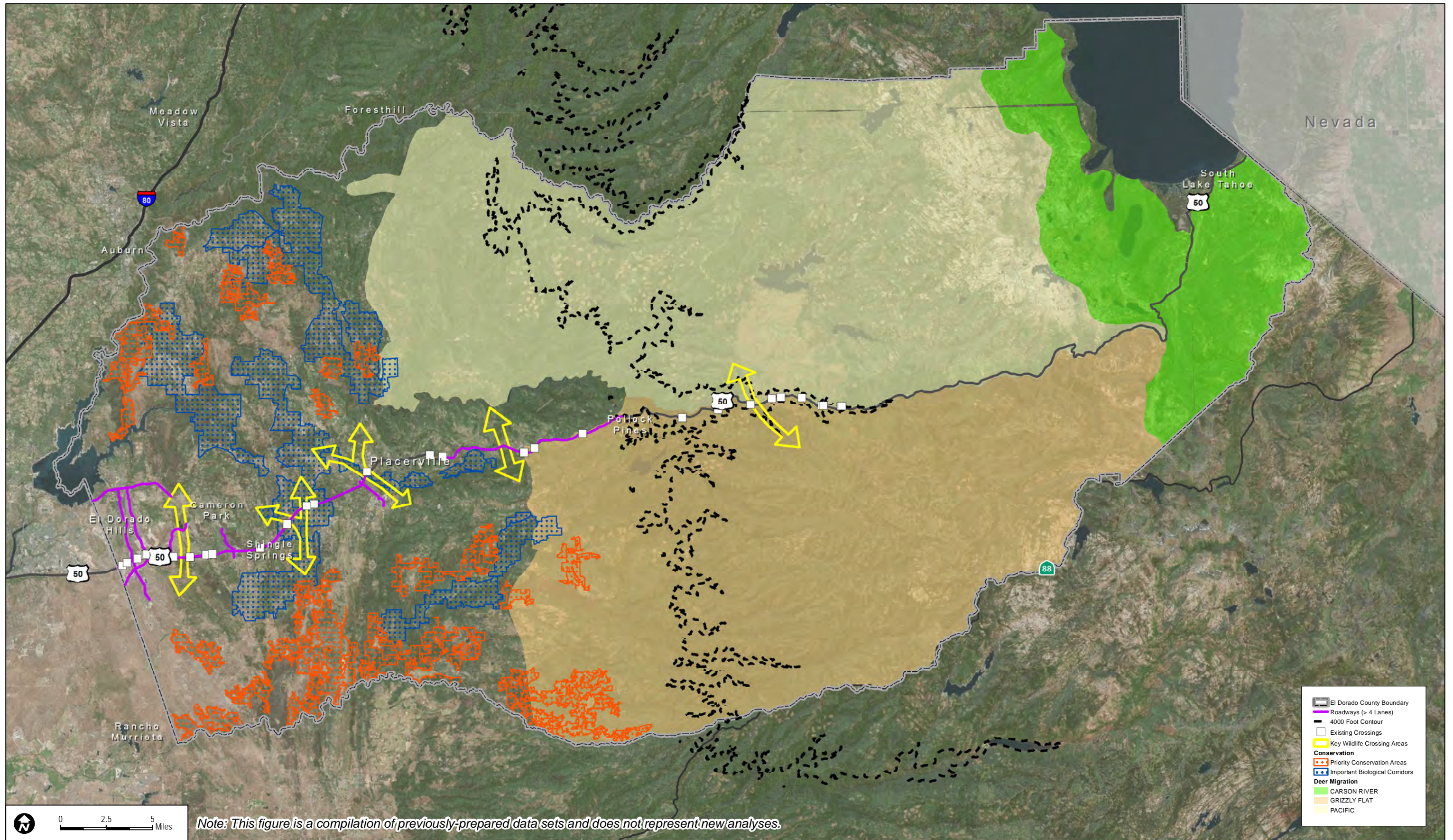
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Subject: Biological Resources Policy Update Decision Points 8 through 10

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Note: This figure is a compilation of previously-prepared data sets and does not represent new analyses.

DUDEK

SOURCE: Bing Maps 2014; CPAD 2014; FRAP 2006; El Dorado County 2014

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Biological Resources Policy Update Decision Points 2 and 3

FIGURE 1
Wildlife Movement

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MEMORANDUM

To: Shawna Purvines, Principal Planner, El Dorado County
From: Cathy Spence-Wells, Principal
Subject: Biological Resources Policy Update: Draft Policies and Draft Oak Resources Management Plan (ORMP)
Date: May 11, 2015
Attachment(s): Draft Biological Resources Policies – Changes Tracked
Draft Biological Resources Policies – Clean
Draft ORMP – Changes Tracked
Draft ORMP – Clean

1.0 INTRODUCTION

The purpose of this memo is to introduce the revised draft biological resources General Plan policies and revised draft Oak Resources Management Plan (ORMP).

On September 24, 2012, the Board of Supervisors (Board) considered six options for implementation of Policy 7.4.4.4. The Options Memo prepared by County staff provides a description of all the options considered. At the conclusion of the Board hearing, the Board directed staff to proceed with Option 6 outlined in the staff report. Option 6 described the intent to amend General Plan Policies 7.4.4.4, 7.4.4.5, 7.4.5.1, 7.4.5.2, 7.4.2.8, and 7.4.2.9 and their related Implementation Measures.

In preparation for this update, staff and Dudek prepared a History/Background memo on the biological resource policies and a Policy Options memo outlining the broad alternatives for updating the policies. Both memos were presented at the July 28, 2014 Board of Supervisors hearing. Both documents can be found on the County's website at:

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

In October 2014, staff and Dudek presented the Board with four possible approaches to the policy update process and the Board elected to proceed with a mitigation/conservation approach. This approach would keep the ORMP (previously titled the Oak Woodlands Management Plan, or OWMP) but would eliminate the County's Integrated Natural Resources Management Plan (INRMP), which had been a key component of the existing General Plan biological resources policies. Instead of the INRMP, the mitigation/conservation approach would provide the County with policies and implementation measures that will work in concert with each other to provide the County with a feasible, effective, and comprehensive program for mitigating biological

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Subject: Biological Resources Policy Update: Draft Policies and Draft Oak Resources Management Plan

resources impacts anticipated under the General Plan. There was considerable discussion during meetings last fall regarding the timely implementation of the OWMP, specifically related to Option B of General Plan Policy 7.4.4.4 (oak woodland in-lieu fee option). Board direction was given to ensure the updated OWMP provides for re-establishment of the in-lieu fee program. The Board further directed, at the December 7, 2014 Board hearing, that staff should rely on the approach, methodology, format, and structure of the existing OWMP to the extent feasible, with updates and revisions as necessary to reflect current conditions and ensure compliance with state law.

Dudek then outlined ten Decision Points, which constituted the components of the mitigation/conservation approach related to oak resources and other special-status biological resources as described in Dudek's Policy Options memo (May 29, 2014). The Board considered the Decision Points in four workshops between January and March 2015. The Board's direction on each of the Decision Points has provided the basis for the proposed draft biological resources policies and ORMP. Information and documents prepared in support of the Decision Points can be found [here](#).

The draft biological resources policies and ORMP are now presented for Board and public review and comment. This memo summarizes the major changes made in the proposed draft policies and ORMP, while the full text of the policies and ORMP are attached. The attachments are presented in both "track changes" and "clean" formats. The ORMP presented at this time includes standards for mitigation of oak woodland and individual oak tree impacts. A fee nexus study is currently being prepared to determine the appropriate in-lieu fee amount to provide for acquisition of conservation lands and/or easements to mitigate impacts to oak woodlands. The fee amount information will be presented to the Board in June 2015.

Based on the comments received on these draft policies and ORMP, staff and Dudek will work to revise the policies and ORMP and will present those revised drafts to the Board and public for review and comment in June 2015. Following that review, the revised drafts will be used to define the project description that will be used to initiate the environmental review process under CEQA.

2.0 DRAFT GENERAL PLAN POLICY UPDATE

The policies and implementation measures have been revised to lay out the requirements for analysis and mitigation of impacts to biological resources, define the roles of project developers and the County in implementing mitigation, and prioritize mitigation opportunities.

Memorandum

Subject: Biological Resources Policy Update: Draft Policies and Draft Oak Resources Management Plan

The environmental review for individual projects would rely on the General Plan policy requirements for project-specific mitigation measures and rely on the ORMP, Priority Conservation Areas (PCAs), and Important Biological Corridors (IBCs) to address cumulative impacts. The ORMP, PCAs, and IBCs would provide the data and tools necessary to support a detailed cumulative impacts analysis in the General Plan Amendment EIR. This is anticipated to support a streamlined environmental review process for individual projects.

The proposed draft policies comply with state and federal law and are self-implementing because they define special-status biological resources, terms of impact analysis, and allowable mitigation strategies. This provides individual property owners a clear understanding of the requirements of the County's biological resource mitigation program applicable to their properties. The policies define a County-wide biological resource mitigation program, including the ORMP and the PCAs and IBCs. These tools would facilitate the identification of mitigation opportunities for developers by allowing the County to maintain a database of willing sellers, and would allow the EIR for this policy update to address cumulative impacts from habitat loss and fragmentation in a more robust manner than relying on the General Plan build-out scenario. With these revisions, the County has the ability to direct the management of conservation lands, whereas, under the INRMP, the County would potentially hold the land in fee title and bear the obligation to manage conservation lands in perpetuity.

Substantial revisions are proposed for Policy 7.4.2.8 to present a Biological Resources Mitigation Program (Program) that meets the goals of the original INRMP. The policy includes requirements for biological resource technical reports to identify and assess biological resources at a project site, defines the types of resources that would be regulated by the County under the General Plan, and identifies the mitigation ratios specific to each vegetation community. The mitigation ratios for wetlands are consistent with requirements typically associated with state and federal wetlands permits while the mitigation ratios for uplands are consistent with requirements of regional habitat conservation plans adopted or proposed in adjacent or nearby communities.

The Program is comprehensive and establishes specific mitigation ratios for impacts to vegetation communities within the County. This will provide individual development projects with a mechanism to demonstrate that the project's contribution to cumulative impacts is mitigated, and therefore streamline the environmental review of such projects under CEQA.

Revisions are also proposed for General Plan Policy 7.4.2.9 to remove currently-identified provisions related to IBCs and replaced with IBC overlay standards to address wildlife habitat value, function, and connectivity.

Memorandum

Subject: Biological Resources Policy Update: Draft Policies and Draft Oak Resources Management Plan

Finally, General Plan Policies 7.4.4.4, 7.4.4.5, 7.4.5.1, and 7.4.5.2 have been consolidated, with specific mitigation requirements for impacts to individual oak trees and oak woodlands (collectively referred to as oak resources) outlined in the ORMP.

Table 1 below provides a summary of each proposed draft policy revision and the reason for it.

**Table 1
Summary of Revisions to General Plan Objectives, Policies, and Implementation Measures**

General Plan Policy/Objective/ Implementation Measure	Changes Made
Policy 7.4.1.1	Added "where feasible".
Policy 7.4.1.2	Text added to clarify which preserves are addressed by this policy.
Policy 7.4.1.3	Text added to clarify which preserves are addressed by this policy.
Policy 7.4.1.4	Text added to clarify which preserves are addressed by this policy.
Policy 7.4.1.5	Deleted text addressed in Policy 7.4.2.8.
Policy 7.4.1.6	Deleted policy, including reference to agricultural consultation, included in 7.4.2.8.
Policy 7.4.2.1	Deleted language addressed in Policy 7.4.2.8.
Policy 7.4.2.2	Deleted text addressed by Policy 7.4.2.9, but only applies to discretionary projects.
Policy 7.4.2.4	Text changed to clarify that active management is not required.
Policy 7.4.2.6	Deleted language addressed in Policy 7.4.2.8.
Policy 7.4.2.7	Deleting this policy removes the requirement to maintain the PAWTAC but does not preclude the County from re-convening the PAWTAC when necessary. With the establishment of a conservation and mitigation program under the proposed policy update replacing the INRMP process, there is a reduced need for an ongoing advisory role.
Policy 7.4.2.8	Modifications to this policy include: <ul style="list-style-type: none"> • Requirement for wildlife movement studies for 4-, 6-, and 8- lane roadway projects (Decision Point 3). • Requirement for a biological resources technical report and establishment of mitigation rations for special-status biological resources (Decision Point 7). • Identification of criteria for conservation lands (Decision Point 9). • Establish a voluntary database of willing sellers (Decision Point 10).
Policy 7.4.2.9	Added provisions for lands within the IBC- overlay (Decision Point 8).
Objective 7.4.3	This objective incorporated into Policy 7.4.1.5.
Objective 7.4.4	Objective 7.4.4 and 7.4.5 consolidated to address oak woodlands and trees together.
Policy 7.4.4.2	Modified to reflect the conservation portion of the mitigation/conservation approach.
Policy 7.4.4.3	Policy language revised to more accurately reflect County's role in development planning.
Policy 7.4.4.4	Identification of oak woodland mitigation requirements combined with oak tree mitigation requirements and moved to the ORMP. Modifications to this policy include: <ul style="list-style-type: none"> • Use of 'oak woodland' as a measurement methodology (Decision Point 2).

**Table 1
Summary of Revisions to General Plan Objectives, Policies, and Implementation Measures**

General Plan Policy/Objective/Implementation Measure	Changes Made
	<ul style="list-style-type: none"> 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) (Decision Point 4). This framework removes the 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. Revisions to projects or actions exempt from oak woodland and oak tree mitigation requirements (Decision Point 5). Addition of criteria for conservation area identification outside of PCAs (Decision Point 6).
Policy 7.4.4.5	Policy removed per Board direction to change to an incentive-based approach rather than a requirement to retain oak woodlands (Decision Point 4).
Objective 7.4.5	Objective 7.4.5 merged with Objective 7.4.4 to address oak woodlands and individual oak trees (including Heritage Trees). 'Vegetation' removed as non-tree vegetation is addressed in Policy 7.4.2.8.
Policy 7.4.5.1	Policy 7.4.5.1 removed as it is redundant with Policy 7.4.5.2.
Policy 7.4.5.2	Policy 7.4.5.2 merged with Policy 7.4.4.4 to comprehensively address oak woodlands and oak tree resources in a 2-tiered framework. This mitigation framework has been moved to the ORMP.
Measure CO-L	Updated to reflect changes to Policy 7.4.2.8.
Measure CO-M	Updated to reflect changes to Policy 7.4.2.8.
Measure CO-N	Updated to reflect changes to Policy 7.4.2.9.
Measure CO-P	Updated to reflect changes to Policy 7.4.4.4 and the ORMP.
Measure CO-U	Updated to reflect changes to Policy 7.4.2.8.

3.0 DRAFT OAK RESOURCES MANAGEMENT PLAN UPDATE

As noted, the ORMP was revised to address mitigation requirements for oak resources, which include individual native oak trees, Heritage Trees, and oak woodlands. Key changes and updates to the ORMP include:

- Re-titling the plan to Oak Resources Management Plan, consistent with General Plan Implementation Measure CO-P and its inclusion of measures to address impacts and mitigation to individual native oak trees, Heritage Trees, and oak woodlands;
- Inclusion of all relevant information from the previous plan (2008) and the County's Interim Interpretive Guidelines for General Plan Policy 7.4.4.4 (Option A);

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- Oak woodland impacts measured by oak woodland extent, not canopy cover;
- Heritage Trees more specifically defined, based on tree species and trunk diameter measurement;
- Exemptions and mitigation reductions refined and consolidated to apply to all oak resources impacts, with minor exceptions (i.e., affordable housing reductions applied only to oak woodlands and no exemptions for Heritage Tree);
- Canopy cover retention requirements removed and replaced with an incentive-based approach that requires higher mitigation ratios with increased level of oak woodland impacts;
- A two-tiered mitigation approach was established clearly outlines mitigation requirements for impacts to individual native oak trees, Heritage Trees, and oak woodlands;
- Mitigation options clarified to include tree planting, conservation, and in-lieu fee payment;
- Update to the oak woodland in-lieu fee amount and identification of an in-lieu amount for individual tree mitigation;
- Identification of permit requirements for impacts to oak resources;
- Addition of standards for identifying oak woodland mitigation areas outside of PCAs; and
- Definitions and terminology refined for consistency within ORMP and with other General Plan policies.



EL DORADO COUNTY GENERAL PLAN CONSERVATION AND OPEN SPACE ELEMENT

PRINCIPLE

Consistent with the objectives, goals, and policies set forth in the Land Use Element, the Plan must conserve and improve the County's existing natural resources and open space, including agricultural and forest soils, mineral deposits, water and native plants, fish, wildlife species and habitat, and federally classified wilderness areas; and preserve resources of significant biological, ecological, historical or cultural importance.

INTRODUCTION

The purpose of the Conservation and Open Space Element of the General Plan is to address the management, preservation, and conservation of natural resources and open space of El Dorado County. Management of the County's resources will assure the availability of those resources to future generations and the realization of their full economic potential.

Pursuant to Government Code Section 65302, both a conservation and an open space element must be included in a general plan. The General Plan combines these two elements into the Conservation and Open Space Element and as such satisfies the legal requirements for the Conservation and Open Space Elements defined in the Government Code, Sections 65302(d) and 65560, respectively.

RELATIONSHIP TO OTHER ELEMENTS

This element contains provisions for the conservation and protection of soils, minerals, water, wildlife and fisheries, vegetation, cultural resources, and open space. The issues of this element are closely linked to those of almost all other elements of this General Plan. The intensity of development and issues of land use compatibility relating to resource protection and/or production are discussed in the Land Use, Agriculture and Forestry, and Parks and Recreation Elements.

Natural resources and soil preservation are also discussed in the Agriculture and Forestry Element. The Agriculture and Forestry Element focuses primarily on conservation of

agricultural lands and timber forest lands and identifies the types of uses which are compatible with resource utilization.

Measures necessary for the protection of life and property, as well as ecological values, are also discussed in the Public Health, Safety, and Noise Element.

The Parks and Recreation Element discusses the provision and maintenance of parks, recreation facilities, and trails to serve El Dorado County while the Conservation and Open Space Element deals with the conservation of open space for outdoor recreation.

The Public Services and Utilities Element discusses the conservation of reusable resources and land by recycling and waste management techniques.

ORGANIZATION OF THE ELEMENT

The Conservation and Open Space Element discusses significant natural resources including geology and soils, extractive minerals, water, biological resources, cultural resources, and open space resources. Goals, objectives, and policies are included in this element for each of the topics listed.

POLICY SECTION

SOIL CONSERVATION

GOAL 7.1: SOIL CONSERVATION

Conserve and protect the County’s soil resources.

OBJECTIVE 7.1.1: SOILS

Long-term soil productivity.

Policy 7.1.1.1 Conserve and maintain important agricultural soils for existing and potential agricultural and forest uses by limiting non-agricultural/non-forestry development on those soils.

OBJECTIVE 7.1.2: EROSION/SEDIMENTATION

Minimize soil erosion and sedimentation.

Policy 7.1.2.1 Development or disturbance shall be prohibited on slopes exceeding 30 percent unless necessary for access. The County may consider and allow development or disturbance on slopes 30 percent and greater when:

- Reasonable use of the property would otherwise be denied.

- The project is necessary for the repair of existing infrastructure to avoid and mitigate hazards to the public, as determined by a California registered civil engineer or a registered engineering geologist.
- Replacement or repair of existing structures would occur in substantially the same footprint.
- The use is a horticultural or grazing use that utilizes “best management practices (BMPs)” recommended by the County Agricultural Commission and adopted by the Board of Supervisors.

Access corridors on slopes 30 percent and greater shall have a site specific review of soil type, vegetation, drainage contour, and site placement to encourage proper site selection and mitigation. Septic systems may only be located on slopes under 30 percent. Roads needed to complete circulation/access and for emergency access may be constructed on such cross slopes if all other standards are met.

- Policy 7.1.2.2 Discretionary and ministerial projects that require earthwork and grading, including cut and fill for roads, shall be required to minimize erosion and sedimentation, conform to natural contours, maintain natural drainage patterns, minimize impervious surfaces, and maximize the retention of natural vegetation. Specific standards for minimizing erosion and sedimentation shall be incorporated into the Zoning Ordinance.
- Policy 7.1.2.3 Enforce Grading Ordinance provisions for erosion control on all development projects and adopt provisions for ongoing, applicant-funded monitoring of project grading.
- Policy 7.1.2.4 Cooperate with and encourage the activities of the three Resource Conservation Districts in identifying critical soil erosion problems and pursuing funding sources to resolve such problems.
- Policy 7.1.2.5 The Department of Transportation, in conjunction with the Resource Conservation Districts and Soil Conservation District, shall develop a road-side maintenance program to manage roads in a manner that maintains drainage and protects surface waters while reducing road-side weed problems.
- Policy 7.1.2.6 The County shall encourage the Soil Conservation Service to update the 1974 Soil Survey and to digitize all soils mapping units on the Geographic Information System (GIS).
- Policy 7.1.2.7 The County shall require agricultural grading activities that convert one acre or more of undisturbed vegetation to agricultural cropland to obtain an agricultural permit through the Agricultural Commissioner’s office which may require approval of the Agricultural Commission. All erosion control measures included in the agricultural permit would be

implemented. All agricultural practices, including fuel reduction and fire protection, that do not change the natural contour of the land and that use “best management practices” as recommended by the County Agricultural Commission and adopted by the Board of Supervisors shall be exempt from this policy.

CONSERVATION OF MINERAL RESOURCES

GOAL 7.2: MINERAL RESOURCES

Conservation of the County’s significant mineral deposits.

OBJECTIVE 7.2.1: IDENTIFY MINERAL RESOURCES

Identification of the County’s important mineral resources.

Policy 7.2.1.1 In accordance with California Code of Regulations, Sections 3675-3676, the County shall maintain all Mineral Land Classification reports produced by the State Department of Conservation, California Geological Survey, which pertain to El Dorado County. El Dorado County hereby recognizes, accepts, and adopts by reference those State Classification Reports as they currently exist and as may be amended, or supplemented, in the future. These reports are as follows:

1. Kohler, S.L. 1983. Mineral Land Classification of the Georgetown 15' Quadrangle, El Dorado, and Placer Counties, California. Open File Report 83-35. Prepared for the California Department of Conservation.
2. Kohler, S.L. 1984. Mineral Land Classification of the Auburn 15' Quadrangle, El Dorado and Placer Counties, California. Open File Report 83-37. Prepared for the California Department of Conservation.
3. Loyd, R.C., T.P Anderson, and M.M Bushnell.1983. Mineral Land Classification of the Placerville 15' Quadrangle, El Dorado, and Amador Counties, California. Open File Report 83-29. Prepared for the California Department of Conservation.
4. Loyd, R.C. 1984. Mineral Land Classification of the Folsom 15' Quadrangle, Sacramento, El Dorado, Placer, and Amador Counties, California. Open File Report 84-50. Prepared for the California Department of Conservation.
5. Loyd, R.C., and S.L. Kohler. 1987. Mineral Land Classification of the Camino and Mokelumne Hill 15' Quadrangles, El Dorado, Amador, and Calaveras Counties, California. Open File Report 87-02. Prepared for the California Department of Conservation.

6. Busch, Lawrence L. 2001. Mineral Land Classification of El Dorado County, California. Open File Report 2000-03. Prepared for the California Department of Conservation.

Policy 7.2.1.2 Areas designated as Mineral Resource (-MR) overlay on the General Plan Land Use Map shall be identified by the Mineral Resource (-MR) combining zone district on the zoning maps when the likely extraction of the resource through surface mining methods will be compatible with adjacent land uses as determined by Policy 7.2.2.2.

Policy 7.2.1.3 The County shall request the State Department of Conservation to conduct a County-wide study to assess the location and value of non-metallic mineral materials. Once completed, the County may recognize them in the General Plan and zone them and the surroundings to allow for mineral resource management.

OBJECTIVE 7.2.2: PROTECTION FROM DEVELOPMENT

Protection of important mineral resources from incompatible development.

Policy 7.2.2.1 The minimum parcel size within, or adjacent to, areas subject to the -MR overlay shall be twenty (20) acres unless the applicant can demonstrate to the approving authority that there are no economically significant mineral deposits on or adjacent to the project site and that the proposed project will have no adverse effect on existing or potential mining operations. The minimum parcel size adjacent to active mining operations which are outside of the -MR overlay shall also be twenty (20) acres.

Policy 7.2.2.2 The General Plan designations, as shown on the General Plan land use maps, which are considered potentially compatible with surface mining shall include:

- Natural Resource (NR)
- Agricultural Land (AL)
- Open Space (OS)
- Industrial (I)
- Public Facilities (PF)
- Rural Residential (RR)
- Commercial (C)
- Low-Density Residential (LDR)

All other General Plan designations are determined to be incompatible for surface mining. Industrial uses shall be limited to those compatible with mineral exploration.

- Policy 7.2.2.3 The County shall require that new nonmining land uses adjacent to existing mining operations be designed to provide a buffer sufficient to protect the mining operation between the new development and the mining operation(s).

OBJECTIVE 7.2.3: ENVIRONMENTAL/LAND USE COMPATIBILITY

Regulation of extraction of mineral resources to ensure that environmental and land use compatibility issues are considered.

- Policy 7.2.3.1 The extraction of mineral resources within the County shall only be allowed following the approval of a special use permit and a reclamation plan conforming to the California Surface Mining and Reclamation Act (SMARA).

- Policy 7.2.3.2 In analyzing the environmental effects of mining operations, the County shall consider, at a minimum, the following issues in granting a new permit:

- A. Natural vegetation and topography for buffering;
- B. Central location of processing equipment and equipment storage;
- C. Dust control;
- D. Circulation and construction standards for access roads;
- E. Erosion control;
- F. Revegetation and re-establishment of natural appearing features on the site following mining activities;
- G. Ultimate land use;
- H. Hours of operation;
- I. Night lighting;
- J. Security fencing;
- K. Noise impacts;
- L. Protection of water quality, sensitive wildlife habitat and/or sensitive plant communities; and
- M. Phased reclamation that proceeds concurrently with surface mining.

- Policy 7.2.3.3 Existing development (commercial, residential, and public facilities), as well as undeveloped private lands, shall be protected from significant

adverse environmental effects caused by mining through use permit conditions, mitigation measures, and the Noise Element standards.

Policy 7.2.3.4 Surface access to subsurface mining is conditionally permitted only in compatible General Plan designations as defined in these policies. However, vent and escape shafts are permitted in incompatible General Plan designations where surface disturbance is minimal.

Policy 7.2.3.5 The County shall require satisfactory forms of accessible security including irrevocable letters of credit, cash deposits, escrowed negotiable securities, or performance bonds for all mining projects to cover all damages which may stem from the projects and to make sure that all reclamation is carried out. These securities shall be reviewed annually to ensure that there are sufficient funds available to repair potential damage at current costs.

Policy 7.2.3.6 Time limits for special use permits for each project shall be established on a case-by-case basis. Time limits shall be based on the reasonably expected life of the mining operation and potential conflicts with future neighboring land uses. Each project shall have a periodic review for compliance with the use permit. In no case shall such review time period exceed five years. Said review shall be funded by the applicant.

Policy 7.2.3.7 Exploration for economic mineral or ore deposits is permitted in compatible General Plan designations as defined in these policies. A special use permit shall be required if:

- A. Overburden or mineral deposits in excess of 1,000 cubic yards are disturbed; or
- B. The operation in any one location disturbs one acre or more in size; or
- C. De-watering will occur or water will be discharged from the site as a result of the operation.

Policy 7.2.3.8 Exploration for economic mineral or ore deposits is permitted in incompatible General Plan designations, provided that:

- A. Methods of geological survey, geophysical, or geochemical prospecting are used; or
- B. Bore holes and trial pits not exceeding 100 cubic yards of overburden or other mineral disturbance may be created; and
- C. No explosives may be used; there may be no drifting or tunnelling; and de-watering or water discharge is not allowed.

Policy 7.2.3.9 All exploratory operations shall require a reclamation plan and a bond to ensure its completion if:

- A. Overburden or mineral deposits in excess of 1,000 cubic yards are disturbed; or
- B. The operation in any one location disturbs one acre or more in size.

Policy 7.2.3.10 In those instances where a reclamation plan is not required, an erosion control plan shall be required for those operations in which over 50 cubic yards or more of overburden are disturbed.

Policy 7.2.3.11 Recreational mining, which is the extraction of minerals for recreation on a seasonal basis and the use of such devices as pans, rockers, and dredges with intakes eight inches in diameter or less, shall not require a special use permit. However, certain Federal or State regulations and local building and sanitation regulations may apply.

Policy 7.2.3.12 Except as provided for in Policy 2.2.2.7, zone changes removing the -MR Combining Zone District from the base zone district shall be considered by the County only when specific studies similar in nature to State Classification Reports prove that a significant mineral deposit no longer exists.

Policy 7.2.3.13 Regardless of the General Plan designation, subsurface mining shall be conditionally permitted throughout the County. Said mining shall be allowed only after impacts to the environment and affected surface land uses have been adequately reviewed and found to be in compliance with CEQA. Of particular importance shall be the impact of the operation on surface land uses, water quantity and quality, and noise and vibration impacts associated with surface access. All other related impacts shall also be addressed.

CONSERVATION AND PROTECTION OF WATER RESOURCES

GOAL 7.3: WATER QUALITY AND QUANTITY

Conserve, enhance, and manage water resources and protect their quality from degradation.

OBJECTIVE 7.3.1: WATER RESOURCE PROTECTION

Preserve and protect the supply and quality of the County’s water resources including the protection of critical watersheds, riparian zones, and aquifers.

Policy 7.3.1.1 Encourage the use of Best Management Practices, as identified by the Soil Conservation Service, in watershed lands as a means to prevent erosion, siltation, and flooding.

- Policy 7.3.1.2 Establish water conservation programs that include both drought tolerant landscaping and efficient building design requirements as well as incentives for the conservation and wise use of water.
- Policy 7.3.1.3 The County shall develop the criteria and draft an ordinance to allow and encourage the use of domestic gray water for landscape irrigation purposes. (See Title 22 of the State Water Code and the Graywater Regulations of the Uniform Plumbing Code).

OBJECTIVE 7.3.2: WATER QUALITY

Maintenance of and, where possible, improvement of the quality of underground and surface water.

- Policy 7.3.2.1 Stream and lake embankments shall be protected from erosion, and streams and lakes shall be protected from excessive turbidity.
- Policy 7.3.2.2 Projects requiring a grading permit shall have an erosion control program approved, where necessary.
- Policy 7.3.2.3 Where practical and when warranted by the size of the project, parking lot storm drainage shall include facilities to separate oils and salts from storm water in accordance with the recommendations of the Storm Water Quality Task Force’s California Storm Water Best Management Practices Handbooks (1993).
- Policy 7.3.2.4 The County should evaluate feasible alternatives to the use of salt for ice control on County roads.
- Policy 7.3.2.5 As a means to improve the water quality affecting the County’s recreational waters, enhanced and increased detailed analytical water quality studies and monitoring should be implemented to identify and reduce point and non-point pollutants and contaminants. Where such studies or monitoring reports have identified sources of pollution, the County shall propose means to prevent, control, or treat identified pollutants and contaminants.

OBJECTIVE 7.3.3: WETLANDS

Protection of natural and man-made wetlands, vernal pools, wet meadows, and riparian areas from impacts related to development for their importance to wildlife habitat, water purification, scenic values, and unique and sensitive plant life.

- 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 7.3.3.2 *intentionally blank*

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.

OBJECTIVE 7.3.4: DRAINAGE

Protection and utilization of natural drainage patterns.

- Policy 7.3.4.1 Natural watercourses shall be integrated into new development in such a way that they enhance the aesthetic and natural character of the site without disturbance.
- Policy 7.3.4.2 Modification of natural stream beds and flow shall be regulated to ensure that adequate mitigation measures are utilized.

OBJECTIVE 7.3.5: WATER CONSERVATION

Conservation of water resources, encouragement of water conservation, and construction of wastewater disposal systems designed to reclaim and re-use treated wastewater on agricultural crops and for other irrigation and wildlife enhancement projects.

- Policy 7.3.5.1 Drought-tolerant plant species, where feasible, shall be used for landscaping of commercial development. Where the use of drought-tolerant native plant species is feasible, they should be used instead of non-native plant species.
- Policy 7.3.5.2 A list of appropriate local indigenous drought tolerant plant materials shall be maintained by the County Planning Department and made available to the public.
- Policy 7.3.5.3 The County Parks and Recreation Division shall use drought tolerant landscaping for all new parks and park improvement projects.
- Policy 7.3.5.4 Require efficient water conveyance systems in new construction. Establish a program of ongoing conversion of open ditch systems shall be considered for conversion to closed conduits, reclaimed water supplies, or both, as circumstances permit.
- Policy 7.3.5.5 Encourage water reuse programs to conserve raw or potable water supplies consistent with State Law.

CONSERVATION OF BIOLOGICAL RESOURCES

GOAL 7.4: WILDLIFE AND VEGETATION RESOURCES

Identify, conserve, and manage wildlife, wildlife habitat, fisheries, and vegetation resources of significant biological, ecological, and recreational value.

OBJECTIVE 7.4.1: RARE, THREATENED, AND ENDANGERED SPECIES

The County shall protect State and Federally recognized rare, threatened, or endangered species and their habitats consistent with Federal and State laws.

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 where feasible the USFWS’s *Gabbro Soil Plants for the Central Sierra Nevada Foothills Recovery Plan* (USFWS 2002).

Policy 7.4.1.2 Private land for Pine Hill rare plant preserve sites will be purchased only from willing sellers.

Policy 7.4.1.3 Limit land uses within established Pine Hill rare plant 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~~The Pine Hill 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 7.4.1.5 The County will

coordinate wildlife and vegetation protection programs with appropriate Federal and State agencies.

Policy 7.4.1.6 *Intentionally blank.*

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.

OBJECTIVE 7.4.2: IDENTIFY AND PROTECT RESOURCES

Identification and protection, where feasible, of critical fish and wildlife habitat including deer winter, summer, and fawning ranges; deer migration routes; stream and river riparian habitat; lake shore habitat; fish spawning areas; wetlands; wildlife corridors; and diverse wildlife habitat.

~~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 "Best Management Practices" (BMPs) recommended by the County Agricultural Commission and adopted by the Board of Supervisors when not subject to Policy 7.1.2.7.~~

Policy 7.4.2.1 *Intentionally blank.*

Policy 7.4.2.2 *Intentionally blank.*

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~~Protect and ~~manage~~preserve 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 7.4.2.6 *Intentionally blank.*

Policy 7.4.2.7 *Intentionally blank.*

Policy 7.4.2.8 ~~Develop within five years and implement an Integrated Natural Resources Management Plan (INRMP) that identifies~~ Conserve contiguous blocks of important habitat to offset the effects of increased habitat loss and fragmentation elsewhere in the County ~~and establishes a program for effective habitat preservation and management. The INRMP shall include the following components:~~

~~Habitat Inventory. This part of the INRMP shall inventory and map the following important habitats through a Biological Resource Mitigation Program (Program). The Program will result in El Dorado County:~~ the conservation of:

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 non native 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 CNDDDB. 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.~~

A. Habitat Protection Strategy. The Program establishes mitigation ratios for special-status biological resources, including vegetation communities, plants, and wildlife.

Special-status species include plants and animals in the following categories:

- Species listed or proposed for listing as Threatened or Endangered under the federal Endangered Species Act (ESA) or the California Endangered Species Act (CESA);
- Species considered as candidates for listing as Threatened or Endangered under ESA or CESA;
- Wildlife species identified by California Department of Fish and Wildlife (CDFW) as Species of Special Concern;
- Wildlife species identified by US Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) as Species of Concern;
- Plants listed as Endangered or Rare under the California Native Plant Protection Act;
- Animals fully protected under the California Fish and Game Code;
- Plants that have a California Native Plant Society (CNPS) California Rare Plant Rank (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 CRPRs are used by both CDFW and USFWS in their consideration of formal species protection under ESA or CESA.

With the exception of oak woodlands, which would be mitigated in accordance with the ORMP (see General Plan Policy 7.4.4.4), mitigation of impacts to vegetation communities will be implemented in accordance with the table below:

<u>Habitat Mitigation Summary Table</u>			
<u>Vegetation Type</u>	<u>Preservation</u>	<u>Creation</u>	<u>Total</u>
<u>Water</u>	<u>NA</u>	<u>1:1</u>	<u>1:1</u>
<u>Herbaceous Wetland</u>	<u>1:1</u>	<u>1:1</u>	<u>2:1</u>
<u>Shrub and Tree Wetlands</u>	<u>2:1</u>	<u>1:1</u>	<u>3:1</u>

<u>Upland (non-oak)</u>	<u>1:1</u>	<u>NA</u>	<u>1:1</u>
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B. Wildlife Movement for future 4- and 6- and 8-lane roadway construction projects. Consideration of wildlife movement will be given by the County on all future 4-, 6-, and 8-lane roadway construction and widening projects. Impacts on public safety and wildlife movement for projects that include new roads of 4 or more lanes or the widening of roads to 4 or more lanes will be evaluated during the development review process (see Section C below). The analysis of wildlife movement impacts will take into account the conditions of the project site and surrounding property to determine whether wildlife undercrossings are warranted and, if so, the type, size, and locations that would best mitigate a project’s impacts on wildlife movement and associated public safety.

C. Biological Resources Assessment. A site-specific biological resources technical report will be required to determine the presence of special-status biological resources that may be affected by a proposed discretionary project. Vegetation communities and special-status plants shall be mapped and assessed in accordance with the CDFG 2009 *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* and subsequent updates, and the *List of Vegetation Alliances and Associations* (CDFG 2010) and subsequent updates. The report will include an assessment of direct, indirect and cumulative impacts to biological resources, including vegetation communities, plant and wildlife species and wildlife movement. The results of the biological resources technical report shall be used as the basis for establishing mitigation requirements in conformance with this policy and the Oak Resources Management Plan (ORMP, see General Plan Policy 7.4.4.4).

D. Habitat Protection. 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. Wetlands mitigation may occur within mitigation banks and/or outside the County if within the watershed of impact. Mitigation sites will be prioritized based on the following criteria:

- Location within PCAs and IBCs
- Location within other important ecological areas, as defined in the Updated INRMP Initial Inventory and Mapping (June 2010);

- Woodland, forest and shrub communities with diverse age structure;
- Woodland and forest communities with large trees and dense canopies;
- Opportunities for active land management to be used to enhance or restore natural ecosystem processes;
- Presence of or potential to support special-status species;
- Connectivity with adjacent protected lands;
- Parcels that achieve multiple agency and community benefits;
- Parcels that are located generally to the west of the Eldorado National Forest; and
- Parcels that would preserve natural wildlife movement corridors such as crossings under major roadways (e.g., U.S. Highway 50 and across canyons).

E. Mitigation Assistance. The County will establish and maintain a database of willing sellers of land for mitigation of biological resource impacts within the County. The County will manage the database as a voluntary program wherein landowners must opt-in to be included in the database by contacting the County. The database will include the following information:

- Property owner name
- Assessor's Parcel Number
- Parcel acreage
- General vegetation communities as mapped in the California Department of Forestry and Fire Protection's Fire and Resource Assessment Program (FRAP) database
- Location within Priority Conservation Area (PCA), Important Biological Corridor (IBC), or important ecological area, as defined in the Updated INRMP Initial Inventory and Mapping (June 2010).

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~~In order to evaluate project-specific compatibility with the -IBC overlay, applicants for discretionary projects (and applicants for ministerial projects within the Weber Creek canyon IBC) shall be required to provide to the County a biological resources technical report (meeting the requirements identified in Section A of Policy 7.4.2.8 above). The site-specific biological resources technical report will determine the presence of special-status species or habitat for such species (as defined in Section B of Policy 7.4.2.8 above) that may be affected by a proposed project as well as the presence of wildlife corridors particularly those used by large mammals such as mountain lion, bobcat, mule deer, American black bear, and coyote. Properties within the -IBC overlay that are found to support wildlife movement shall provide mitigation to ensure there is no net loss of wildlife movement function and value for special-status species, as well as large mammals such as mountain lion, bobcat, mule deer,

American black bear, and coyote. Mitigation measures may include land use siting and design tools.

Wildland Fire Safe measures (actions conducted in accordance with an approved Fire Safe Plan for existing structures or defensible space maintenance for existing structures consistent with California Public Resources Code Section 4291) 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. Wildland Fire Safe measures for proposed projects are not exempt from this policy.

OBJECTIVE 7.4.3: ~~COORDINATION WITH APPROPRIATE AGENCIES~~ INTENTIONALLY BLANK

~~Coordination of wildlife and vegetation protection programs with appropriate Federal and State agencies.~~

OBJECTIVE 7.4.4: FOREST ~~AND~~, OAK WOODLAND, AND TREE RESOURCES

Protect and conserve forest ~~and, oak~~ woodland, and tree resources for their wildlife habitat, recreation, water production, domestic livestock grazing, production of a sustainable flow of wood products, and aesthetic values.

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 conservation, protection, planting, restoration, and regeneration of native trees in new developments and within existing communities.

Policy 7.4.4.3 ~~Utilize~~Encourage the clustering of development to retain the largest contiguous areas of forests and oak woodlands possible ~~in wildland (undeveloped) status.~~

Policy 7.4.4.4 For all new development projects ~~(not including agricultural cultivation and or 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 impacts to oak woodlands 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 base line aerial photography /or by site survey performed by a qualified biologist or licensed arborist individual native oak trees, including Heritage Trees, the

County shall require ~~one of two mitigation options: (1) as outlined in 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 El Dorado County Oak Resources Management Plan (INRMP) conservation fund described~~ ORMP. The ORMP functions as the oak resources component of the County's biological resources mitigation program, identified in Policy 7.4.2.8.

Option A

~~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.~~

Option B

~~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 woodland 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 onsite 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.~~

OBJECTIVE 7.4.5: ~~NATIVE VEGETATION AND LANDMARK TREES~~**~~Protect and maintain native trees including oaks and landmark and heritage trees.~~**

~~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:~~

~~I. — 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 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 onsite 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.~~

~~J. 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.~~

~~K. 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.~~

~~Penalties. Fines will be issued to any person, firm, or corporation that is not exempt from the ordinance who 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. 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 that are exempt from this policy. 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 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.

PRESERVATION OF CULTURAL RESOURCES

GOAL 7.5: CULTURAL RESOURCES

Ensure the preservation of the County’s important cultural resources.

OBJECTIVE 7.5.1: PROTECTION OF CULTURAL HERITAGE

Creation of an identification and preservation program for the County’s cultural resources.

Policy 7.5.1.1 The County shall establish a Cultural Resources Ordinance. This ordinance shall provide a broad regulatory framework for the mitigation of impacts on cultural resources (including historic, prehistoric and paleontological resources) by discretionary projects. This Ordinance should include (but not be limited to) and provide for the following:

- A. Appropriate (as per guidance from the Native American Heritage Commission) Native American monitors to be notified regarding projects involving significant ground-disturbing activities that could affect significant resources.
- B. A 100-foot development setback in sensitive areas as a study threshold when deemed appropriate.
- C. Identification of appropriate buffers, given the nature of the resources within which ground-disturbing activities should be limited.
- D. A definition of cultural resources that are significant to the County. This definition shall conform to (but not necessarily be limited to) the significance criteria used for the National Register of Historic Places (NRHP) and the California Register of Historical Resources (CRHR) and Society of Vertebrate Paleontology.
- E. Formulation of project review guidelines for all development projects.

F. Development of a cultural resources sensitivity map of the County.

Policy 7.5.1.2 Reports and/or maps identifying specific locations of archaeological or historical sites shall be kept confidential in the Planning Department but shall be disclosed where applicable.

Policy 7.5.1.3 Cultural resource studies (historic, prehistoric, and paleontological resources) shall be conducted prior to approval of discretionary projects. Studies may include, but are not limited to, record searches through the North Central Information Center at California State University, Sacramento, the Museum of Paleontology, University of California, Berkeley, field surveys, subsurface testing, and/or salvage excavations. The avoidance and protection of sites shall be encouraged.

Policy 7.5.1.4 Promote the registration of historic districts, sites, buildings, structures, and objects in the National Register of Historic Places and inclusion in the California State Office of Historic Preservation's California Points of Historic Interest and California Inventory of Historic Resources.

Policy 7.5.1.5 A Cultural Resources Preservation Commission shall be formed to aid in the protection and preservation of the County's important cultural resources. The Commission's duties shall include, but are not limited to:

- A. Assisting in the formulation of policies for the identification, treatment, and protection of cultural resources (including historic cemeteries) and the curation of any artifacts collected during field collection/excavation;
- B. Assisting in preparation of a cultural resources inventory (to include prehistoric sites and historic sites and structures of local importance);
- C. Reviewing all projects with identified cultural resources and making recommendations on appropriate forms of protection and mitigation; and
- D. Reviewing sites for possible inclusion in the National Register of Historic Places, California Register, and other State and local lists of cultural properties.

The County shall request to become a Certified Local Government (CLG) through the State Office of Historic Preservation. Certification would qualify the County for grants to aid in historic preservation projects. The Cultural Resources Preservation Commission could serve as the Commission required for the CLG program.

Policy 7.5.1.6 The County shall treat any significant cultural resources (i.e., those determined California Register of Historical Resources/National Register of Historic Places eligible and unique paleontological resources),

documented as a result of a conformity review for ministerial development, in accordance with CEQA standards.

OBJECTIVE 7.5.2: VISUAL INTEGRITY

Maintenance of the visual integrity of historic resources.

Policy 7.5.2.1 Create Historic Design Control Districts for areas, places, sites, structures, or uses which have special historic significance.

Policy 7.5.2.2 The County shall define Historic Design Control Districts (HDCDs). HDCD inclusions and boundaries shall be determined in a manner consistent with National Historic Preservation Act (NHPA) Historic District standards.

- A. The County shall develop design guidelines for each HDCD. These guidelines shall be compatible with NHPA standards.
- B. New buildings and structures and reconstruction/restoration of historic (historic as per National Register of Historic Places [NRHP] and California Register of Historical Resources [CRHR] criteria) buildings and structures shall generally conform to styles of architecture prevalent during the latter half of the 19th century into the first decade of the 20th century.
- C. Any historic building or structure located within a designated HDCD, or any building or structure located elsewhere in the county that is listed on the NRHP or CRHR, is designated a California Building of Historic Interest, or a California State Historic Landmark, or is designated as significant as per NRHP/CRHR criteria, shall not be destroyed, significantly altered, removed, or otherwise changed in exterior appearance without a design review.
- D. In cases where the County permits the significant alteration of a historic building or structure exterior, such alteration shall be required to maintain the historic integrity and appearance of the building or structure and shall be subject to a design review.
- E. In cases where new building construction is placed next to a historic building or structure in a designated HDCD or listed on the CRHR/NRHP, the architectural design of the new construction shall generally conform to the historic period of significance of the HDCD or listed property.
- F. In cases where the County permits the destruction of a historic building or tearing down a structure, the building or structure shall first be recorded in a manner consistent with the standards of the NHPA Historic American Building Survey (HABS) by a qualified professional architectural historian.

G. The County shall mandate building and structure design controls within the viewshed of the Marshall Gold Discovery State Historic Park. These design controls shall be consistent with those mandated for designated Historic Design Control Districts.

Policy 7.5.2.3 New buildings and reconstruction in historic communities shall generally conform to the types of architecture prevalent in the gold mining areas of California during the period 1850 to 1910.

Policy 7.5.2.4 The County shall prohibit the modification of all National Register of Historic Places (NRHP)/California Register of Historical Resources (CRHR) listed properties that would alter their integrity, historic setting, and appearance to a degree that would preclude their continued listing on these registers. If avoidance of such modifications on privately owned listed properties is deemed infeasible, mitigation measures commensurate with NRHP/CRHR standards shall be formulated in cooperation with the property owner.

Policy 7.5.2.5 In cases where the County permits the demolition or alteration of an historic building, such alteration or new construction (subsequent to demolition) shall be required to maintain the character of the historic building or replicate its historic features.

Policy 7.5.2.6 The County, in cooperation with the State, shall identify the viewshed of Coloma State Park and establish guidelines to be used for development within the viewshed. In addition, the County shall continue to support the relocation of State Route 49 to bypass the Park in order to protect its visual and physical integrity.

OBJECTIVE 7.5.3: RECOGNITION OF PREHISTORIC/HISTORIC RESOURCES

Recognition of the value of the County’s prehistoric and historic resources to residents, tourists, and the economy of the County, and promotion of public access and enjoyment of prehistoric and historic resources where appropriate.

OBJECTIVE 7.5.4: PROTECTION OF CEMETERIES

Preservation and protection of existing cemeteries including access and parking.

Policy 7.5.4.1 Protect access routes and parking at existing cemeteries. Development proposals will be evaluated to ensure that they do not interfere with cemeteries or their access and parking.

PRESERVATION OF OPEN SPACE

GOAL 7.6: OPEN SPACE CONSERVATION

Conserve open space land for the continuation of the County's rural character, commercial agriculture, forestry and other productive uses, the enjoyment of scenic beauty and recreation, the protection of natural resources, for protection from natural hazards, and for wildlife habitat.

OBJECTIVE 7.6.1: IMPORTANCE OF OPEN SPACE

Consideration of open space as an important factor in the County's quality of life.

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 Agricultural (A), Exclusive Agricultural (AE), Planned Agricultural (PA), Select Agricultural (SA-10), and Timberland Production Zone (TPZ) zoning districts are consistent with Policy 7.6.1.1 and serve one or more of the purposes set forth therein.
- 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.

IMPLEMENTATION PROGRAM

MEASURE CO-A

Review the Zoning Ordinance (Title 17 of the El Dorado County Code) to identify revisions that accomplish the following:

- A. Incorporate tree canopy coverage standards outlined in Policy 7.4.4.4;
- B. Develop standards for use of native plants in landscaping [Policy 7.4.5.2];
- C. Establish Historic Design Control Combining Zone District and design guidelines for reconstruction and construction of new buildings and the demolition of existing buildings in such districts. Adopt an ordinance amendment implementing historic design review requirements and recordation procedures. [Policies 7.5.2.1, 7.5.2.2, and 7.5.2.4];
- D. Develop buffer standards for new nonmining land uses next to existing mining operations [Policy 7.2.2.3];
- E. Develop standards for minimizing erosion and sedimentation associated with earthwork and grading [Policy 7.1.2.2].

Responsibility:	Planning Department
Time Frame:	Update Zoning Ordinance within one year of General Plan adoption.

MEASURE CO-B

Coordinate with the Resource Conservation Districts to address erosion control issues. [Policy 7.1.2.4]

Responsibility:	Planning Department and Department of Transportation
Time Frame:	Ongoing

MEASURE CO-C

In coordination with the Resource Conservation Districts, develop a roadside maintenance program that addresses roadside drainage, the protection of adjacent surface waters, and vegetation control. [Policy 7.1.2.5]

Also refer to Measure CO-G.

Responsibility:	Department of Transportation
Time Frame:	Develop and implement program within three years of General Plan adoption.

MEASURE CO-D

Develop an agricultural permit program that includes standards for agricultural operations comparable to those in the Grading Ordinance and considers other issues important to the protection of agricultural lands.

Responsibility:	Department of Transportation, Department of Agriculture, and Planning Department
Time Frame:	Within three years of General Plan adoption

MEASURE CO-E

Request that the California Geological Survey conduct a non-metallic mineral survey for the County and manage resources appropriately. [Policy 7.2.1.3]

Responsibility:	Planning Department
Time Frame:	Request survey by state within two years of General Plan adoption. Amend General Plan upon completion of survey by state.

MEASURE CO-F

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MEASURE CO-G

Create guidelines for development projects that may affect surface water resources. The guidelines should include:

- Definition(s) of surface water resources;
- Criteria for determining the presence of surface water resources;

- Buffer standards;
- Mitigation standards; and
- Use of Best Management Practices.

[Policies 7.3.1.1, 7.3.2.1, 7.3.2.3, 7.3.3.1, 7.3.3.2, and 7.3.4.2]

Also refer to Measure CO-C.

Responsibility:	Environmental Management, Department of Transportation, and Planning Department
Time Frame:	Within five years of General Plan adoption.

MEASURE CO-H

Prepare and adopt an ordinance revision to permit the use of domestic gray water for irrigation purposes. [Policy 7.3.1.3]

Responsibility:	Environmental Management and Building Department
Time Frame:	Develop ordinance within five years of General Plan adoption.

MEASURE CO-I

Evaluate alternatives to the use of salt for snow removal on County roads. [Policy 7.3.2.4]

Responsibility:	Department of Transportation
Time Frame:	Complete evaluation within two years of General Plan adoption.

MEASURE CO-J

Develop and implement a program to perform water quality analysis and monitoring of the County’s recreational waters. [Policy 7.3.2.5]

Responsibility:	Environmental Management and Department of Transportation
Time Frame:	Develop and implement program within eight years of General Plan adoption.

MEASURE CO-K

Work cooperatively with the State Department of Fish and Game, U.S. Fish and Wildlife Service, and Bureau of Land Management to implement the gabbro soils rare plant ecological

preserve and recovery program and to develop a long-term preserve strategy. Develop implementation measures to incorporate in County development standards for ministerial and discretionary projects, which may include:

- Identification of compatible land uses within preserve sites, which may include passive recreation, research and scientific study, and interpretive education; and
- Fuels management and fire protection plans to reduce fire hazards at the interface between rare plant preserve sites and residential land uses; and

[Policies 7.4.1.1, 7.4.1.2, and 7.4.1.3 and Objective 7.4.3]

Responsibility:	Planning Department
Time Frame:	Ongoing implementation to continue immediately upon General Plan adoption. Development standards to be incorporated into updated Zoning Ordinance and design standards programs.

MEASURE CO-L

Develop guidelines for the preparation of biological ~~study~~resources technical reports. [Policy 7.4.1.~~6~~2.8]

Responsibility:	Planning Department and Department of Transportation
Time Frame:	Develop guidelines within five years of General Plan adoption.

MEASURE CO-M

~~Develop and implement an Integrated Natural Resources Management Plan consistent with Policy 7.4.2.8.~~

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Responsibility:	Planning Department
Time Frame:	Develop initial habitat protection strategy; develop and implement mitigation assistance program; and develop and implement conservation fund within two years of General Plan adoption. Develop framework for acquisition strategy and monitoring program within three years of General Plan adoption. Begin actual acquisition after completion of the initial inventory and mapping; develop management strategies as properties are acquired. Adaptive management of the entire program will be ongoing.

MEASURE CO-N

~~Review and update an Important Biological Corridor (IBC) Overlay land use designation consistent with Policy 7.4.2.9.~~

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Responsibility:	Planning Department
Time Frame:	Within two years of General Plan adoption.

MEASURE CO-O

Prepare and adopt a riparian setback ordinance. The ordinance, which shall be incorporated into the Zoning Code, should address mitigation standards, including permanent protection mechanisms for protected areas, and exceptions to the setback requirements. The ordinance shall be applied to riparian areas associated with any surface water feature (i.e., rivers, streams, lakes, ponds, and wetlands) and should be prepared in coordination with Measure CO-B. [Policy 7.4.2.5]

Responsibility:	Planning Department
Time Frame:	Within three years of General Plan adoption.

MEASURE CO-P

Develop and adopt an Oak Resources Management Plan. The plan shall address the following:

- Mitigation standards ~~outlined in Policy 7.4.4.4~~ for oak resources impacts;
- ~~Thresholds~~ Definitions of ~~significance for the loss of oak woodlands;~~
- Requirements for tree survey ~~exempt projects~~ and actions;
- Technical report requirements;
- ~~Oak resources~~ mitigation plans for discretionary projects;
- Replanting options and ~~replacement~~ standards;
- Heritage ~~landmark tree protection~~ Tree mitigation standards; and
- ~~An Oak Tree Preservation Ordinance as outlined in~~ Oak resources mitigation monitoring and reporting requirements.
- ~~[Policy 7.4.5.1.~~

- [~~Policies 7.4.4.4 and 7.4.5.1~~]

<u>Responsibility:</u>	<u>Planning Department</u>
Responsibility:	Planning Department
Time Frame:	Within two years of General Plan adoption.
Time Frame:	Concurrent with biological resources policy update.

MEASURE CO-Q

Develop and adopt a Cultural Resources Preservation Ordinance, consistent with Policy 7.5.1.1.

Responsibility:	Planning Department and Department of Transportation
Time Frame:	Adopt ordinance within two years of General Plan adoption.

MEASURE CO-R

Maintain a confidential cultural resources database of prehistoric and historic resources, including the location and condition of pioneer cemetery sites. Information may be made available consistent with state and federal law. [Policy 7.5.1.2]

Responsibility:	Planning Department
Time Frame:	Ongoing

MEASURE CO-S

Investigate becoming a Certified Local Government through the State Office of Historic Preservation. [Policy 7.5.1.5]

Responsibility:	Planning Department
Time Frame:	Report to the Board of Supervisors within five years of General Plan adoption.

MEASURE CO-T

Work with the State of California Department of Parks and Recreation to identify the viewshed of Marshall Gold Discovery State Historic Park (Coloma) and establish guidelines for development within that viewshed. [Policy 7.5.2.6]

Responsibility:	Planning Department
Time Frame:	Identify viewshed within four years of General Plan adoption. Adopt standards within six years.

MEASURE CO-U

~~Mitigation under Policy 7.4.1.6 shall include providing sufficient funding to the County’s conservation fund to acquire and protect important habitat at a minimum 2:1 ratio. The cost associated with acquisition, restoration, and management of the habitat protected shall be included in the mitigation fee. For larger development projects (i.e., those that exceed a total of 10 acres), in addition to contributing to the conservation fund at a minimum 2:1 ratio, onsite preservation and/or restoration of important habitat shall be required at a 1:1 ratio. Impacts on important habitat and mitigation requirements shall be addressed in a Biological Resources Study and an Important Habitat Mitigation Program (described below).~~

~~A. — Biological Resources Study. The County shall adopt biological resource assessment standards that apply to all discretionary projects that would result in disturbance of soil and native vegetation in areas that include important habitat as defined in the INRMP. The assessment of the project site must be in the form of an independent Biological Resources Study, and must be completed by a qualified biologist. The evaluation shall quantify the amount of important habitat, by habitat type, as defined in the General Plan and delineated on maps included in the INRMP. The Biological Resources Study shall also address the potential for the project to adversely affect important habitat through conversion or fragmentation. This requirement shall not apply to projects that are on lands that either (1) have already been the subject of a study and for which all mitigation requirements are being implemented or (2) have been evaluated by the County and found to not possess any important habitat resources.~~

~~B. — Important Habitat Mitigation Program. The Biological Resource Study shall include an Important Habitat Mitigation Program that identifies options that would avoid, minimize, or compensate for impacts on important habitats in compliance with the standards of the INRMP and the General Plan. All mitigation programs shall include a monitoring and reporting component requiring reports to the County not less than once each year for a period of not less than 10 years. The report will include a description of the lands included in the mitigation program (including location and size), a summary of the evaluation criteria established at the time the mitigation program was approved, an evaluation of the mitigation program based on those criteria, and recommendations for action during the following year. The County shall adopt standards for evaluating mitigation programs proposed as part of the Biological Resources Study described above. The standards shall ensure that the mitigation reduces direct and cumulative impacts of proposed development on important habitats to less than significant levels in accordance with CEQA thresholds.~~

Responsibility:	Planning Department
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Time Frame:	Refer to Measures CO-L and CO-M as applicable.
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EL DORADO COUNTY GENERAL PLAN CONSERVATION AND OPEN SPACE ELEMENT

PRINCIPLE

Consistent with the objectives, goals, and policies set forth in the Land Use Element, the Plan must conserve and improve the County's existing natural resources and open space, including agricultural and forest soils, mineral deposits, water and native plants, fish, wildlife species and habitat, and federally classified wilderness areas; and preserve resources of significant biological, ecological, historical or cultural importance.

INTRODUCTION

The purpose of the Conservation and Open Space Element of the General Plan is to address the management, preservation, and conservation of natural resources and open space of El Dorado County. Management of the County's resources will assure the availability of those resources to future generations and the realization of their full economic potential.

Pursuant to Government Code Section 65302, both a conservation and an open space element must be included in a general plan. The General Plan combines these two elements into the Conservation and Open Space Element and as such satisfies the legal requirements for the Conservation and Open Space Elements defined in the Government Code, Sections 65302(d) and 65560, respectively.

RELATIONSHIP TO OTHER ELEMENTS

This element contains provisions for the conservation and protection of soils, minerals, water, wildlife and fisheries, vegetation, cultural resources, and open space. The issues of this element are closely linked to those of almost all other elements of this General Plan. The intensity of development and issues of land use compatibility relating to resource protection and/or production are discussed in the Land Use, Agriculture and Forestry, and Parks and Recreation Elements.

Natural resources and soil preservation are also discussed in the Agriculture and Forestry Element. The Agriculture and Forestry Element focuses primarily on conservation of

agricultural lands and timber forest lands and identifies the types of uses which are compatible with resource utilization.

Measures necessary for the protection of life and property, as well as ecological values, are also discussed in the Public Health, Safety, and Noise Element.

The Parks and Recreation Element discusses the provision and maintenance of parks, recreation facilities, and trails to serve El Dorado County while the Conservation and Open Space Element deals with the conservation of open space for outdoor recreation.

The Public Services and Utilities Element discusses the conservation of reusable resources and land by recycling and waste management techniques.

ORGANIZATION OF THE ELEMENT

The Conservation and Open Space Element discusses significant natural resources including geology and soils, extractive minerals, water, biological resources, cultural resources, and open space resources. Goals, objectives, and policies are included in this element for each of the topics listed.

POLICY SECTION

SOIL CONSERVATION

GOAL 7.1: SOIL CONSERVATION

Conserve and protect the County’s soil resources.

OBJECTIVE 7.1.1: SOILS

Long-term soil productivity.

Policy 7.1.1.1 Conserve and maintain important agricultural soils for existing and potential agricultural and forest uses by limiting non-agricultural/non-forestry development on those soils.

OBJECTIVE 7.1.2: EROSION/SEDIMENTATION

Minimize soil erosion and sedimentation.

Policy 7.1.2.1 Development or disturbance shall be prohibited on slopes exceeding 30 percent unless necessary for access. The County may consider and allow development or disturbance on slopes 30 percent and greater when:

- Reasonable use of the property would otherwise be denied.

- The project is necessary for the repair of existing infrastructure to avoid and mitigate hazards to the public, as determined by a California registered civil engineer or a registered engineering geologist.
- Replacement or repair of existing structures would occur in substantially the same footprint.
- The use is a horticultural or grazing use that utilizes “best management practices (BMPs)” recommended by the County Agricultural Commission and adopted by the Board of Supervisors.

Access corridors on slopes 30 percent and greater shall have a site specific review of soil type, vegetation, drainage contour, and site placement to encourage proper site selection and mitigation. Septic systems may only be located on slopes under 30 percent. Roads needed to complete circulation/access and for emergency access may be constructed on such cross slopes if all other standards are met.

- Policy 7.1.2.2 Discretionary and ministerial projects that require earthwork and grading, including cut and fill for roads, shall be required to minimize erosion and sedimentation, conform to natural contours, maintain natural drainage patterns, minimize impervious surfaces, and maximize the retention of natural vegetation. Specific standards for minimizing erosion and sedimentation shall be incorporated into the Zoning Ordinance.
- Policy 7.1.2.3 Enforce Grading Ordinance provisions for erosion control on all development projects and adopt provisions for ongoing, applicant-funded monitoring of project grading.
- Policy 7.1.2.4 Cooperate with and encourage the activities of the three Resource Conservation Districts in identifying critical soil erosion problems and pursuing funding sources to resolve such problems.
- Policy 7.1.2.5 The Department of Transportation, in conjunction with the Resource Conservation Districts and Soil Conservation District, shall develop a road-side maintenance program to manage roads in a manner that maintains drainage and protects surface waters while reducing road-side weed problems.
- Policy 7.1.2.6 The County shall encourage the Soil Conservation Service to update the 1974 Soil Survey and to digitize all soils mapping units on the Geographic Information System (GIS).
- Policy 7.1.2.7 The County shall require agricultural grading activities that convert one acre or more of undisturbed vegetation to agricultural cropland to obtain an agricultural permit through the Agricultural Commissioner’s office which may require approval of the Agricultural Commission. All erosion control measures included in the agricultural permit would be

implemented. All agricultural practices, including fuel reduction and fire protection, that do not change the natural contour of the land and that use “best management practices” as recommended by the County Agricultural Commission and adopted by the Board of Supervisors shall be exempt from this policy.

CONSERVATION OF MINERAL RESOURCES

GOAL 7.2: MINERAL RESOURCES

Conservation of the County’s significant mineral deposits.

OBJECTIVE 7.2.1: IDENTIFY MINERAL RESOURCES

Identification of the County’s important mineral resources.

Policy 7.2.1.1 In accordance with California Code of Regulations, Sections 3675-3676, the County shall maintain all Mineral Land Classification reports produced by the State Department of Conservation, California Geological Survey, which pertain to El Dorado County. El Dorado County hereby recognizes, accepts, and adopts by reference those State Classification Reports as they currently exist and as may be amended, or supplemented, in the future. These reports are as follows:

1. Kohler, S.L. 1983. Mineral Land Classification of the Georgetown 15' Quadrangle, El Dorado, and Placer Counties, California. Open File Report 83-35. Prepared for the California Department of Conservation.
2. Kohler, S.L. 1984. Mineral Land Classification of the Auburn 15' Quadrangle, El Dorado and Placer Counties, California. Open File Report 83-37. Prepared for the California Department of Conservation.
3. Loyd, R.C., T.P Anderson, and M.M Bushnell.1983. Mineral Land Classification of the Placerville 15' Quadrangle, El Dorado, and Amador Counties, California. Open File Report 83-29. Prepared for the California Department of Conservation.
4. Loyd, R.C. 1984. Mineral Land Classification of the Folsom 15' Quadrangle, Sacramento, El Dorado, Placer, and Amador Counties, California. Open File Report 84-50. Prepared for the California Department of Conservation.
5. Loyd, R.C., and S.L. Kohler. 1987. Mineral Land Classification of the Camino and Mokelumne Hill 15' Quadrangles, El Dorado, Amador, and Calaveras Counties, California. Open File Report 87-02. Prepared for the California Department of Conservation.

6. Busch, Lawrence L. 2001. Mineral Land Classification of El Dorado County, California. Open File Report 2000-03. Prepared for the California Department of Conservation.

Policy 7.2.1.2 Areas designated as Mineral Resource (-MR) overlay on the General Plan Land Use Map shall be identified by the Mineral Resource (-MR) combining zone district on the zoning maps when the likely extraction of the resource through surface mining methods will be compatible with adjacent land uses as determined by Policy 7.2.2.2.

Policy 7.2.1.3 The County shall request the State Department of Conservation to conduct a County-wide study to assess the location and value of non-metallic mineral materials. Once completed, the County may recognize them in the General Plan and zone them and the surroundings to allow for mineral resource management.

OBJECTIVE 7.2.2: PROTECTION FROM DEVELOPMENT

Protection of important mineral resources from incompatible development.

Policy 7.2.2.1 The minimum parcel size within, or adjacent to, areas subject to the -MR overlay shall be twenty (20) acres unless the applicant can demonstrate to the approving authority that there are no economically significant mineral deposits on or adjacent to the project site and that the proposed project will have no adverse effect on existing or potential mining operations. The minimum parcel size adjacent to active mining operations which are outside of the -MR overlay shall also be twenty (20) acres.

Policy 7.2.2.2 The General Plan designations, as shown on the General Plan land use maps, which are considered potentially compatible with surface mining shall include:

- Natural Resource (NR)
- Agricultural Land (AL)
- Open Space (OS)
- Industrial (I)
- Public Facilities (PF)
- Rural Residential (RR)
- Commercial (C)
- Low-Density Residential (LDR)

All other General Plan designations are determined to be incompatible for surface mining. Industrial uses shall be limited to those compatible with mineral exploration.

Policy 7.2.2.3 The County shall require that new nonmining land uses adjacent to existing mining operations be designed to provide a buffer sufficient to protect the mining operation between the new development and the mining operation(s).

OBJECTIVE 7.2.3: ENVIRONMENTAL/LAND USE COMPATIBILITY

Regulation of extraction of mineral resources to ensure that environmental and land use compatibility issues are considered.

Policy 7.2.3.1 The extraction of mineral resources within the County shall only be allowed following the approval of a special use permit and a reclamation plan conforming to the California Surface Mining and Reclamation Act (SMARA).

Policy 7.2.3.2 In analyzing the environmental effects of mining operations, the County shall consider, at a minimum, the following issues in granting a new permit:

- A. Natural vegetation and topography for buffering;
- B. Central location of processing equipment and equipment storage;
- C. Dust control;
- D. Circulation and construction standards for access roads;
- E. Erosion control;
- F. Revegetation and re-establishment of natural appearing features on the site following mining activities;
- G. Ultimate land use;
- H. Hours of operation;
- I. Night lighting;
- J. Security fencing;
- K. Noise impacts;
- L. Protection of water quality, sensitive wildlife habitat and/or sensitive plant communities; and
- M. Phased reclamation that proceeds concurrently with surface mining.

Policy 7.2.3.3 Existing development (commercial, residential, and public facilities), as well as undeveloped private lands, shall be protected from significant

adverse environmental effects caused by mining through use permit conditions, mitigation measures, and the Noise Element standards.

Policy 7.2.3.4 Surface access to subsurface mining is conditionally permitted only in compatible General Plan designations as defined in these policies. However, vent and escape shafts are permitted in incompatible General Plan designations where surface disturbance is minimal.

Policy 7.2.3.5 The County shall require satisfactory forms of accessible security including irrevocable letters of credit, cash deposits, escrowed negotiable securities, or performance bonds for all mining projects to cover all damages which may stem from the projects and to make sure that all reclamation is carried out. These securities shall be reviewed annually to ensure that there are sufficient funds available to repair potential damage at current costs.

Policy 7.2.3.6 Time limits for special use permits for each project shall be established on a case-by-case basis. Time limits shall be based on the reasonably expected life of the mining operation and potential conflicts with future neighboring land uses. Each project shall have a periodic review for compliance with the use permit. In no case shall such review time period exceed five years. Said review shall be funded by the applicant.

Policy 7.2.3.7 Exploration for economic mineral or ore deposits is permitted in compatible General Plan designations as defined in these policies. A special use permit shall be required if:

- A. Overburden or mineral deposits in excess of 1,000 cubic yards are disturbed; or
- B. The operation in any one location disturbs one acre or more in size; or
- C. De-watering will occur or water will be discharged from the site as a result of the operation.

Policy 7.2.3.8 Exploration for economic mineral or ore deposits is permitted in incompatible General Plan designations, provided that:

- A. Methods of geological survey, geophysical, or geochemical prospecting are used; or
- B. Bore holes and trial pits not exceeding 100 cubic yards of overburden or other mineral disturbance may be created; and
- C. No explosives may be used; there may be no drifting or tunnelling; and de-watering or water discharge is not allowed.

Policy 7.2.3.9 All exploratory operations shall require a reclamation plan and a bond to ensure its completion if:

- A. Overburden or mineral deposits in excess of 1,000 cubic yards are disturbed; or
- B. The operation in any one location disturbs one acre or more in size.

Policy 7.2.3.10 In those instances where a reclamation plan is not required, an erosion control plan shall be required for those operations in which over 50 cubic yards or more of overburden are disturbed.

Policy 7.2.3.11 Recreational mining, which is the extraction of minerals for recreation on a seasonal basis and the use of such devices as pans, rockers, and dredges with intakes eight inches in diameter or less, shall not require a special use permit. However, certain Federal or State regulations and local building and sanitation regulations may apply.

Policy 7.2.3.12 Except as provided for in Policy 2.2.2.7, zone changes removing the -MR Combining Zone District from the base zone district shall be considered by the County only when specific studies similar in nature to State Classification Reports prove that a significant mineral deposit no longer exists.

Policy 7.2.3.13 Regardless of the General Plan designation, subsurface mining shall be conditionally permitted throughout the County. Said mining shall be allowed only after impacts to the environment and affected surface land uses have been adequately reviewed and found to be in compliance with CEQA. Of particular importance shall be the impact of the operation on surface land uses, water quantity and quality, and noise and vibration impacts associated with surface access. All other related impacts shall also be addressed.

CONSERVATION AND PROTECTION OF WATER RESOURCES

GOAL 7.3: WATER QUALITY AND QUANTITY

Conserve, enhance, and manage water resources and protect their quality from degradation.

OBJECTIVE 7.3.1: WATER RESOURCE PROTECTION

Preserve and protect the supply and quality of the County’s water resources including the protection of critical watersheds, riparian zones, and aquifers.

Policy 7.3.1.1 Encourage the use of Best Management Practices, as identified by the Soil Conservation Service, in watershed lands as a means to prevent erosion, siltation, and flooding.

- Policy 7.3.1.2 Establish water conservation programs that include both drought tolerant landscaping and efficient building design requirements as well as incentives for the conservation and wise use of water.
- Policy 7.3.1.3 The County shall develop the criteria and draft an ordinance to allow and encourage the use of domestic gray water for landscape irrigation purposes. (See Title 22 of the State Water Code and the Graywater Regulations of the Uniform Plumbing Code).

OBJECTIVE 7.3.2: WATER QUALITY

Maintenance of and, where possible, improvement of the quality of underground and surface water.

- Policy 7.3.2.1 Stream and lake embankments shall be protected from erosion, and streams and lakes shall be protected from excessive turbidity.
- Policy 7.3.2.2 Projects requiring a grading permit shall have an erosion control program approved, where necessary.
- Policy 7.3.2.3 Where practical and when warranted by the size of the project, parking lot storm drainage shall include facilities to separate oils and salts from storm water in accordance with the recommendations of the Storm Water Quality Task Force’s California Storm Water Best Management Practices Handbooks (1993).
- Policy 7.3.2.4 The County should evaluate feasible alternatives to the use of salt for ice control on County roads.
- Policy 7.3.2.5 As a means to improve the water quality affecting the County’s recreational waters, enhanced and increased detailed analytical water quality studies and monitoring should be implemented to identify and reduce point and non-point pollutants and contaminants. Where such studies or monitoring reports have identified sources of pollution, the County shall propose means to prevent, control, or treat identified pollutants and contaminants.

OBJECTIVE 7.3.3: WETLANDS

Protection of natural and man-made wetlands, vernal pools, wet meadows, and riparian areas from impacts related to development for their importance to wildlife habitat, water purification, scenic values, and unique and sensitive plant life.

- 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

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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.

OBJECTIVE 7.3.4: DRAINAGE

Protection and utilization of natural drainage patterns.

- Policy 7.3.4.1 Natural watercourses shall be integrated into new development in such a way that they enhance the aesthetic and natural character of the site without disturbance.
- Policy 7.3.4.2 Modification of natural stream beds and flow shall be regulated to ensure that adequate mitigation measures are utilized.

OBJECTIVE 7.3.5: WATER CONSERVATION

Conservation of water resources, encouragement of water conservation, and construction of wastewater disposal systems designed to reclaim and re-use treated wastewater on agricultural crops and for other irrigation and wildlife enhancement projects.

- Policy 7.3.5.1 Drought-tolerant plant species, where feasible, shall be used for landscaping of commercial development. Where the use of drought-tolerant native plant species is feasible, they should be used instead of non-native plant species.
- Policy 7.3.5.2 A list of appropriate local indigenous drought tolerant plant materials shall be maintained by the County Planning Department and made available to the public.
- Policy 7.3.5.3 The County Parks and Recreation Division shall use drought tolerant landscaping for all new parks and park improvement projects.
- Policy 7.3.5.4 Require efficient water conveyance systems in new construction. Establish a program of ongoing conversion of open ditch systems shall be considered for conversion to closed conduits, reclaimed water supplies, or both, as circumstances permit.
- Policy 7.3.5.5 Encourage water reuse programs to conserve raw or potable water supplies consistent with State Law.

CONSERVATION OF BIOLOGICAL RESOURCES

GOAL 7.4: WILDLIFE AND VEGETATION RESOURCES

Identify, conserve, and manage wildlife, wildlife habitat, fisheries, and vegetation resources of significant biological, ecological, and recreational value.

OBJECTIVE 7.4.1: RARE, THREATENED, AND ENDANGERED SPECIES

The County shall protect State and Federally recognized rare, threatened, or endangered species and their habitats consistent with Federal and State laws.

- 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 where feasible the USFWS's *Gabbro Soil Plants for the Central Sierra Nevada Foothills Recovery Plan* (USFWS 2002).
- Policy 7.4.1.2 Private land for Pine Hill rare plant preserve sites will be purchased only from willing sellers.
- Policy 7.4.1.3 Limit land uses within established Pine Hill rare plant 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 The Pine Hill 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 The County will coordinate wildlife and vegetation protection programs with appropriate Federal and State agencies.
- Policy 7.4.1.6 *Intentionally blank.*
- 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.

OBJECTIVE 7.4.2: IDENTIFY AND PROTECT RESOURCES

Identification and protection, where feasible, of critical fish and wildlife habitat including deer winter, summer, and fawning ranges; deer migration routes; stream and river riparian habitat; lake shore habitat; fish spawning areas; wetlands; wildlife corridors; and diverse wildlife habitat.

- Policy 7.4.2.1 *Intentionally blank.*
- Policy 7.4.2.2 *Intentionally blank.*
- 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 Protect and preserve 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 *Intentionally blank.*

Policy 7.4.2.7 *Intentionally blank.*

Policy 7.4.2.8 Conserve contiguous blocks of important habitat to offset the effects of increased habitat loss and fragmentation elsewhere in the County through a Biological Resource Mitigation Program (Program). The Program will result in the conservation of:

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.

A. Habitat Protection Strategy. The Program establishes mitigation ratios for special-status biological resources, including vegetation communities, plants, and wildlife.

Special-status species include plants and animals in the following categories:

- Species listed or proposed for listing as Threatened or Endangered under the federal Endangered Species Act (ESA) or the California Endangered Species Act (CESA);
- Species considered as candidates for listing as Threatened or Endangered under ESA or CESA;
- Wildlife species identified by California Department of Fish and Wildlife (CDFW) as Species of Special Concern;
- Wildlife species identified by US Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) as Species of Concern;

- Plants listed as Endangered or Rare under the California Native Plant Protection Act;
- Animals fully protected under the California Fish and Game Code;
- Plants that have a California Native Plant Society (CNPS) California Rare Plant Rank (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 CRPRs are used by both CDFW and USFWS in their consideration of formal species protection under ESA or CESA.

With the exception of oak woodlands, which would be mitigated in accordance with the ORMP (see General Plan Policy 7.4.4.4), mitigation of impacts to vegetation communities will be implemented in accordance with the table below:

Habitat Mitigation Summary Table			
Vegetation Type	Preservation	Creation	Total
Water	NA	1:1	1:1
Herbaceous Wetland	1:1	1:1	2:1
Shrub and Tree Wetlands	2:1	1:1	3:1
Upland (non-oak)	1:1	NA	1:1

B. Wildlife Movement for future 4- and 6- and 8-lane roadway construction projects. Consideration of wildlife movement will be given by the County on all future 4-, 6-, and 8-lane roadway construction and widening projects. Impacts on public safety and wildlife movement for projects that include new roads of 4 or more lanes or the widening of roads to 4 or more lanes will be evaluated during the development review process (see Section C below). The analysis of wildlife movement impacts will take into account the conditions of the project site and surrounding property to determine whether wildlife undercrossings are warranted and, if so, the type, size, and locations that would best mitigate a project’s impacts on wildlife movement and associated public safety.

- C. **Biological Resources Assessment.** A site-specific biological resources technical report will be required to determine the presence of special-status biological resources that may be affected by a proposed discretionary project. Vegetation communities and special-status plants shall be mapped and assessed in accordance with the CDFG 2009 *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* and subsequent updates, and the *List of Vegetation Alliances and Associations* (CDFG 2010) and subsequent updates. The report will include an assessment of direct, indirect and cumulative impacts to biological resources, including vegetation communities, plant and wildlife species and wildlife movement. The results of the biological resources technical report shall be used as the basis for establishing mitigation requirements in conformance with this policy and the Oak Resources Management Plan (ORMP, see General Plan Policy 7.4.4.4).
- D. **Habitat Protection.** 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. Wetlands mitigation may occur within mitigation banks and/or outside the County if within the watershed of impact. Mitigation sites will be prioritized based on the following criteria:
- Location within PCAs and IBCs
 - Location within other important ecological areas, as defined in the Updated INRMP Initial Inventory and Mapping (June 2010);
 - Woodland, forest and shrub communities with diverse age structure;
 - Woodland and forest communities with large trees and dense canopies;
 - Opportunities for active land management to be used to enhance or restore natural ecosystem processes;
 - Presence of or potential to support special-status species;
 - Connectivity with adjacent protected lands;
 - Parcels that achieve multiple agency and community benefits;
 - Parcels that are located generally to the west of the Eldorado National Forest; and

- Parcels that would preserve natural wildlife movement corridors such as crossings under major roadways (e.g., U.S. Highway 50 and across canyons).
- E. Mitigation Assistance. The County will establish and maintain a database of willing sellers of land for mitigation of biological resource impacts within the County. The County will manage the database as a voluntary program wherein landowners must opt-in to be included in the database by contacting the County. The database will include the following information:
- Property owner name
 - Assessor's Parcel Number
 - Parcel acreage
 - General vegetation communities as mapped in the California Department of Forestry and Fire Protection's Fire and Resource Assessment Program (FRAP) database
 - Location within Priority Conservation Area (PCA), Important Biological Corridor (IBC), or important ecological area, as defined in the Updated INRMP Initial Inventory and Mapping (June 2010).

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:

- In order to evaluate project-specific compatibility with the -IBC overlay, applicants for discretionary projects (and applicants for ministerial projects within the Weber Creek canyon IBC) shall be required to provide to the County a biological resources technical report (meeting the requirements identified in Section A of Policy 7.4.2.8 above). The site-specific biological resources technical report will determine the presence of special-status species or habitat for such species (as defined in Section B of Policy 7.4.2.8 above) that may be affected by a proposed project as well as the presence of wildlife corridors particularly those used by large mammals such as mountain lion, bobcat, mule deer, American black bear, and coyote. Properties within the -IBC overlay that are found to support wildlife movement shall provide mitigation to

ensure there is no net loss of wildlife movement function and value for special-status species, as well as large mammals such as mountain lion, bobcat, mule deer, American black bear, and coyote. Mitigation measures may include land use siting and design tools.

Wildland Fire Safe measures (actions conducted in accordance with an approved Fire Safe Plan for existing structures or defensible space maintenance for existing structures consistent with California Public Resources Code Section 4291) 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. Wildland Fire Safe measures for proposed projects are not exempt from this policy.

OBJECTIVE 7.4.3: INTENTIONALLY BLANK

OBJECTIVE 7.4.4: FOREST, OAK WOODLAND, AND TREE RESOURCES

Protect and conserve forest, oak woodland, and tree resources for their wildlife habitat, recreation, water production, domestic livestock grazing, production of a sustainable flow of wood products, and aesthetic values.

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 conservation, protection, planting, restoration, and regeneration of native trees in new developments and within existing communities.

Policy 7.4.4.3 Encourage the clustering of development to retain the largest contiguous areas of forests and oak woodlands possible.

Policy 7.4.4.4 For all new development projects or actions that result in impacts to oak woodlands and/or individual native oak trees, including Heritage Trees, the County shall require mitigation as outlined in the El Dorado County Oak Resources Management Plan (ORMP). The ORMP functions as the oak resources component of the County's biological resources mitigation program, identified in 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 that are exempt from this policy. 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 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.

PRESERVATION OF CULTURAL RESOURCES

GOAL 7.5: CULTURAL RESOURCES

Ensure the preservation of the County's important cultural resources.

OBJECTIVE 7.5.1: PROTECTION OF CULTURAL HERITAGE

Creation of an identification and preservation program for the County's cultural resources.

- Policy 7.5.1.1 The County shall establish a Cultural Resources Ordinance. This ordinance shall provide a broad regulatory framework for the mitigation of impacts on cultural resources (including historic, prehistoric and paleontological resources) by discretionary projects. This Ordinance should include (but not be limited to) and provide for the following:
- A. Appropriate (as per guidance from the Native American Heritage Commission) Native American monitors to be notified regarding projects involving significant ground-disturbing activities that could affect significant resources.
 - B. A 100-foot development setback in sensitive areas as a study threshold when deemed appropriate.
 - C. Identification of appropriate buffers, given the nature of the resources within which ground-disturbing activities should be limited.
 - D. A definition of cultural resources that are significant to the County. This definition shall conform to (but not necessarily be limited to) the significance criteria used for the National Register of Historic Places (NRHP) and the California Register of Historical Resources (CRHR) and Society of Vertebrate Paleontology.
 - E. Formulation of project review guidelines for all development projects.
 - F. Development of a cultural resources sensitivity map of the County.

Policy 7.5.1.2 Reports and/or maps identifying specific locations of archaeological or historical sites shall be kept confidential in the Planning Department but shall be disclosed where applicable.

Policy 7.5.1.3 Cultural resource studies (historic, prehistoric, and paleontological resources) shall be conducted prior to approval of discretionary projects. Studies may include, but are not limited to, record searches through the North Central Information Center at California State University, Sacramento, the Museum of Paleontology, University of California, Berkeley, field surveys, subsurface testing, and/or salvage excavations. The avoidance and protection of sites shall be encouraged.

Policy 7.5.1.4 Promote the registration of historic districts, sites, buildings, structures, and objects in the National Register of Historic Places and inclusion in the California State Office of Historic Preservation’s California Points of Historic Interest and California Inventory of Historic Resources.

Policy 7.5.1.5 A Cultural Resources Preservation Commission shall be formed to aid in the protection and preservation of the County’s important cultural resources. The Commission’s duties shall include, but are not limited to:

- A. Assisting in the formulation of policies for the identification, treatment, and protection of cultural resources (including historic cemeteries) and the curation of any artifacts collected during field collection/excavation;
- B. Assisting in preparation of a cultural resources inventory (to include prehistoric sites and historic sites and structures of local importance);
- C. Reviewing all projects with identified cultural resources and making recommendations on appropriate forms of protection and mitigation; and
- D. Reviewing sites for possible inclusion in the National Register of Historic Places, California Register, and other State and local lists of cultural properties.

The County shall request to become a Certified Local Government (CLG) through the State Office of Historic Preservation. Certification would qualify the County for grants to aid in historic preservation projects. The Cultural Resources Preservation Commission could serve as the Commission required for the CLG program.

Policy 7.5.1.6 The County shall treat any significant cultural resources (i.e., those determined California Register of Historical Resources/National Register of Historic Places eligible and unique paleontological resources), documented as a result of a conformity review for ministerial development, in accordance with CEQA standards.

OBJECTIVE 7.5.2: VISUAL INTEGRITY

Maintenance of the visual integrity of historic resources.

- Policy 7.5.2.1 Create Historic Design Control Districts for areas, places, sites, structures, or uses which have special historic significance.

- Policy 7.5.2.2 The County shall define Historic Design Control Districts (HDCDs). HDCD inclusions and boundaries shall be determined in a manner consistent with National Historic Preservation Act (NHPA) Historic District standards.
 - A. The County shall develop design guidelines for each HDCD. These guidelines shall be compatible with NHPA standards.
 - B. New buildings and structures and reconstruction/restoration of historic (historic as per National Register of Historic Places [NRHP] and California Register of Historical Resources [CRHR] criteria) buildings and structures shall generally conform to styles of architecture prevalent during the latter half of the 19th century into the first decade of the 20th century.
 - C. Any historic building or structure located within a designated HDCD, or any building or structure located elsewhere in the county that is listed on the NRHP or CRHR, is designated a California Building of Historic Interest, or a California State Historic Landmark, or is designated as significant as per NRHP/CRHR criteria, shall not be destroyed, significantly altered, removed, or otherwise changed in exterior appearance without a design review.
 - D. In cases where the County permits the significant alteration of a historic building or structure exterior, such alteration shall be required to maintain the historic integrity and appearance of the building or structure and shall be subject to a design review.
 - E. In cases where new building construction is placed next to a historic building or structure in a designated HDCD or listed on the CRHR/NRHP, the architectural design of the new construction shall generally conform to the historic period of significance of the HDCD or listed property.
 - F. In cases where the County permits the destruction of a historic building or tearing down a structure, the building or structure shall first be recorded in a manner consistent with the standards of the NHPA Historic American Building Survey (HABS) by a qualified professional architectural historian.
 - G. The County shall mandate building and structure design controls within the viewshed of the Marshall Gold Discovery State Historic

Park. These design controls shall be consistent with those mandated for designated Historic Design Control Districts.

- Policy 7.5.2.3 New buildings and reconstruction in historic communities shall generally conform to the types of architecture prevalent in the gold mining areas of California during the period 1850 to 1910.
- Policy 7.5.2.4 The County shall prohibit the modification of all National Register of Historic Places (NRHP)/California Register of Historical Resources (CRHR) listed properties that would alter their integrity, historic setting, and appearance to a degree that would preclude their continued listing on these registers. If avoidance of such modifications on privately owned listed properties is deemed infeasible, mitigation measures commensurate with NRHP/CRHR standards shall be formulated in cooperation with the property owner.
- Policy 7.5.2.5 In cases where the County permits the demolition or alteration of an historic building, such alteration or new construction (subsequent to demolition) shall be required to maintain the character of the historic building or replicate its historic features.
- Policy 7.5.2.6 The County, in cooperation with the State, shall identify the viewshed of Coloma State Park and establish guidelines to be used for development within the viewshed. In addition, the County shall continue to support the relocation of State Route 49 to bypass the Park in order to protect its visual and physical integrity.

OBJECTIVE 7.5.3: RECOGNITION OF PREHISTORIC/HISTORIC RESOURCES

Recognition of the value of the County’s prehistoric and historic resources to residents, tourists, and the economy of the County, and promotion of public access and enjoyment of prehistoric and historic resources where appropriate.

OBJECTIVE 7.5.4: PROTECTION OF CEMETERIES

Preservation and protection of existing cemeteries including access and parking.

- Policy 7.5.4.1 Protect access routes and parking at existing cemeteries. Development proposals will be evaluated to ensure that they do not interfere with cemeteries or their access and parking.

PRESERVATION OF OPEN SPACE**GOAL 7.6: OPEN SPACE CONSERVATION**

Conserve open space land for the continuation of the County's rural character, commercial agriculture, forestry and other productive uses, the enjoyment of scenic beauty and recreation, the protection of natural resources, for protection from natural hazards, and for wildlife habitat.

OBJECTIVE 7.6.1: IMPORTANCE OF OPEN SPACE**Consideration of open space as an important factor in the County's quality of life.**

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 Agricultural (A), Exclusive Agricultural (AE), Planned Agricultural (PA), Select Agricultural (SA-10), and Timberland Production Zone (TPZ) zoning districts are consistent with Policy 7.6.1.1 and serve one or more of the purposes set forth therein.
 - 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.

IMPLEMENTATION PROGRAM

MEASURE CO-A

Review the Zoning Ordinance (Title 17 of the El Dorado County Code) to identify revisions that accomplish the following:

- A. Incorporate tree canopy coverage standards outlined in Policy 7.4.4.4;
- B. Develop standards for use of native plants in landscaping [Policy 7.4.5.2];
- C. Establish Historic Design Control Combining Zone District and design guidelines for reconstruction and construction of new buildings and the demolition of existing buildings in such districts. Adopt an ordinance amendment implementing historic design review requirements and recordation procedures. [Policies 7.5.2.1, 7.5.2.2, and 7.5.2.4];
- D. Develop buffer standards for new nonmining land uses next to existing mining operations [Policy 7.2.2.3];
- E. Develop standards for minimizing erosion and sedimentation associated with earthwork and grading [Policy 7.1.2.2].

Responsibility:	Planning Department
Time Frame:	Update Zoning Ordinance within one year of General Plan adoption.

MEASURE CO-B

Coordinate with the Resource Conservation Districts to address erosion control issues. [Policy 7.1.2.4]

Responsibility:	Planning Department and Department of Transportation
Time Frame:	Ongoing

MEASURE CO-C

In coordination with the Resource Conservation Districts, develop a roadside maintenance program that addresses roadside drainage, the protection of adjacent surface waters, and vegetation control. [Policy 7.1.2.5]

Also refer to Measure CO-G.

Responsibility:	Department of Transportation
Time Frame:	Develop and implement program within three years of General Plan adoption.

MEASURE CO-D

Develop and agricultural permit program that includes standards for agricultural operations comparable to those in the Grading Ordinance and considers other issues important to the protection of agricultural lands.

Responsibility:	Department of Transportation, Department of Agriculture, and Planning Department
Time Frame:	Within three years of General Plan adoption

MEASURE CO-E

Request that the California Geological Survey conduct a non-metallic mineral survey for the County and manage resources appropriately. [Policy 7.2.1.3]

Responsibility:	Planning Department
Time Frame:	Request survey by state within two years of General Plan adoption. Amend General Plan upon completion of survey by state.

MEASURE CO-F

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MEASURE CO-G

Create guidelines for development projects that may affect surface water resources. The guidelines should include:

- Definition(s) of surface water resources;
- Criteria for determining the presence of surface water resources;

- Buffer standards;
- Mitigation standards; and
- Use of Best Management Practices.

[Policies 7.3.1.1, 7.3.2.1, 7.3.2.3, 7.3.3.1, 7.3.3.2, and 7.3.4.2]

Also refer to Measure CO-C.

Responsibility:	Environmental Management, Department of Transportation, and Planning Department
Time Frame:	Within five years of General Plan adoption.

MEASURE CO-H

Prepare and adopt an ordinance revision to permit the use of domestic gray water for irrigation purposes. [Policy 7.3.1.3]

Responsibility:	Environmental Management and Building Department
Time Frame:	Develop ordinance within five years of General Plan adoption.

MEASURE CO-I

Evaluate alternatives to the use of salt for snow removal on County roads. [Policy 7.3.2.4]

Responsibility:	Department of Transportation
Time Frame:	Complete evaluation within two years of General Plan adoption.

MEASURE CO-J

Develop and implement a program to perform water quality analysis and monitoring of the County’s recreational waters. [Policy 7.3.2.5]

Responsibility:	Environmental Management and Department of Transportation
Time Frame:	Develop and implement program within eight years of General Plan adoption.

MEASURE CO-K

Work cooperatively with the State Department of Fish and Game, U.S. Fish and Wildlife Service, and Bureau of Land Management to implement the gabbro soils rare plant ecological

preserve and recovery program and to develop a long-term preserve strategy. Develop implementation measures to incorporate in County development standards for ministerial and discretionary projects, which may include:

- Identification of compatible land uses within preserve sites, which may include passive recreation, research and scientific study, and interpretive education; and
- Fuels management and fire protection plans to reduce fire hazards at the interface between rare plant preserve sites and residential land uses; and

[Policies 7.4.1.1, 7.4.1.2, and 7.4.1.3 and Objective 7.4.3]

Responsibility:	Planning Department
Time Frame:	Ongoing implementation to continue immediately upon General Plan adoption. Development standards to be incorporated into updated Zoning Ordinance and design standards programs.

MEASURE CO-L

Develop guidelines for the preparation of biological resources technical reports. [Policy 7.4.2.8]

Responsibility:	Planning Department and Department of Transportation
Time Frame:	Develop guidelines within five years of General Plan adoption.

MEASURE CO-M

Intentionally blank.

MEASURE CO-N

Intentionally blank.

MEASURE CO-O

Prepare and adopt a riparian setback ordinance. The ordinance, which shall be incorporated into the Zoning Code, should address mitigation standards, including permanent protection

mechanisms for protected areas, and exceptions to the setback requirements. The ordinance shall be applied to riparian areas associated with any surface water feature (i.e., rivers, streams, lakes, ponds, and wetlands) and should be prepared in coordination with Measure CO-B. [Policy 7.4.2.5]

Responsibility:	Planning Department
Time Frame:	Within three years of General Plan adoption.

MEASURE CO-P

Develop and adopt an Oak Resources Management Plan. The plan shall address the following:

- Mitigation standards for oak resources impacts;
- Definitions of exempt projects and actions;
- Technical report requirements;
- Oak resources mitigation options and standards;
- Heritage Tree mitigation standards; and
- Oak resources mitigation monitoring and reporting requirements.

- [Policy 7.4.4.4]

Responsibility:	Planning Department
Time Frame:	Concurrent with biological resources policy update.

MEASURE CO-Q

Develop and adopt a Cultural Resources Preservation Ordinance, consistent with Policy 7.5.1.1.

Responsibility:	Planning Department and Department of Transportation
Time Frame:	Adopt ordinance within two years of General Plan adoption.

MEASURE CO-R

Maintain a confidential cultural resources database of prehistoric and historic resources, including the location and condition of pioneer cemetery sites. Information may be made available consistent with state and federal law. [Policy 7.5.1.2]

Responsibility:	Planning Department
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Time Frame:	Ongoing
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MEASURE CO-S

Investigate becoming a Certified Local Government through the State Office of Historic Preservation. [Policy 7.5.1.5]

Responsibility:	Planning Department
Time Frame:	Report to the Board of Supervisors within five years of General Plan adoption.

MEASURE CO-T

Work with the State of California Department of Parks and Recreation to identify the viewshed of Marshall Gold Discovery State Historic Park (Coloma) and establish guidelines for development within that viewshed. [Policy 7.5.2.6]

Responsibility:	Planning Department
Time Frame:	Identify viewshed within four years of General Plan adoption. Adopt standards within six years.

MEASURE CO-U

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1. Introduction

A. Purpose

The Purpose of this 1.0 Introduction

This Oak Resources Management Plan (ORMP) updates and revises the Oak Woodland Management Plan (OWMP) adopted by the El Dorado County Board of Supervisors on May 6, 2008 (El Dorado County 2008). It incorporates more recent oak resources mapping data for the County and reflects policy language changes made during the General Plan Biological Policy Review project conducted in 2015. This ORMP incorporates relevant information included in the 2008 Plan, where applicable, and was prepared in coordination with El Dorado County Community Development Agency staff. It also incorporates public input gathered during project-focused hearings and direction given by the El Dorado County Board of Supervisors.

1.1 Purpose

The purpose of this 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 woodland conservation of its valuable oak woodland resources. Through the OWMP, the County. This ORMP functions as the oak resources component of the County's biological resources mitigation program, identified in General Plan Policy 7.4.2.8. This ORMP identifies areas where 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 that are exempt from mitigation requirements. This 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 easement efforts may be acquired from willing sellers as a means to offset and mitigate the loss or fragmentation of oak woodlands in other focused, and outlines minimum standards for identification of oak woodland conservation areas outside the PCAs. Requirements for monitoring and maintenance of conserved oak woodland areas as a result of implementation of the 2004 El Dorado County General Plan (General Plan). Additionally, the OWMP and identification of allowable uses within conserved oak woodland areas are also included in this ORMP. Lastly, this ORMP provides guidance for voluntary oak woodland and oak tree conservation and management efforts by landowners and land managers. Lastly, the OWMP sets forth further guidance on General Plan Policy 7.4.4.4 Option A, which includes measures designed to encourage retention of existing oak canopy in areas planned for development.

Loss and fragmentation of wildlife habitat, including oaks and oak woodlands, was identified in the 2004 General Plan Environmental Impact Report (EIR) as a significant impact that would result from development under the General Plan. The County identified several mitigation measures which would reduce the severity of these impacts, although not to below a less than significant level of significance. These mitigation measures included Policies 7.4.4.4, 7.4.4.5 and 7.4.5.2, and the related implementation Implementation Measure CO-P. During the General Plan Biological Policy Review project conducted in 2015, these policies were edited and consolidated into one single policy (Policy 7.4.4.4). Implementation Measure CO-P was also

modified during this process. The revised language in Policy 7.4.4.4 states that mitigation requirements for impacts to oak resources (oak woodlands, individual native oak trees, and Heritage Trees) shall be outlined in this ORMP. Revised Implementation Measure CO-P directs the County to develop and adopt an ORMP that addresses the following:

~~Measure CO-P directs the County to develop and adopt an Oak Resources Management Plan that addresses the following:~~

- ~~• Mitigation standards outlined in Policy 7.4.4.4;~~
 - ~~• Thresholds of significance for the loss of oak woodlands resources impacts;~~
 - ~~• Requirements for tree surveys and Definitions of exempt projects and actions;~~
 - ~~• Technical report requirements;~~

Oak resources mitigation plans for discretionary projects;

- ~~• Replanting options and replacement standards;~~
- ~~• Heritage/Landmark Tree protection mitigation standards; and~~
- ~~• An Oak Tree Preservation ordinance as outlined in Policy 7.4.5.2.~~
 - Oak resources mitigation monitoring and reporting requirements.

An Oak ~~Tree Preservation~~Resources Conservation ordinance that incorporates the standards outlined in ~~Policy 7.4.5.2 and Heritage and Landmark Tree protection standards~~this ORMP will be developed ~~after their conjunction with~~ adoption of the ~~OWMP~~ORMP.

At the state level, the Oak Woodlands Conservation Act of 2001 recognizes the importance of private land stewardship in conserving oak woodlands. -The legislation established the California Oak Woodlands Conservation Program (COWCP), the mission of which is to “conserve the integrity and diversity of oak woodlands across California’s working landscapes through incentives and education.” -The COWCP provides technical and financial incentives to private landowners to protect and promote biologically functional oak woodlands.

~~The OWMP~~This ORMP serves multiple purposes. It defines the County’s conservation strategy for oak ~~woodland~~ resources and ~~implements Option B of Policy 7.4.4.4. provides a framework for mitigating impacts to oak resources.~~ It also ~~partially~~ complies with Implementation Measure CO-P; and constitutes the oak portion of the County’s ~~Integrated Natural Resources Management~~biological resources mitigation program (General Plan (INRMP)- Policy 7.4.2.8). Finally, it ~~will establish~~establishes a plan for voluntary conservation that landowners, the County, and others can use to seek grants and cost-sharing from ~~State~~state and ~~Federal~~federal programs for oak woodland conservation in El Dorado County.

B.-1.2 *Goals and Objectives of Plan*

The ~~OWMP~~ORMP goals are guided by two General Plan Objectives:- Objective 7.4.2 and Objective 7.4.4. General Plan Objective 7.4.2 states: *Identify and Protect Resources:* “Identification and protection, where feasible, of critical fish and wildlife habitat including deer

winter, summer, and fawning ranges; deer migration routes; stream and river riparian habitat; lake shore habitat; fish spawning areas; wetlands; wildlife corridors; and diverse wildlife habitat.”

General Plan Objective 7.4.4 states: *Forest ~~and~~, Oak Woodland, and Tree Resources*: “Protect and conserve forest ~~and~~, oak woodland, and tree resources for their wildlife habitat, recreation, water production, domestic livestock grazing, production of a sustainable flow of wood products, and aesthetic values.”

The following goals ~~are~~ set forth by the ~~OWMP~~ General Plan ~~are met in this ORMP~~:

- ~~• Mitigate oak canopy removal by providing flexibility through a range of on-site and off-site mitigation alternatives;~~
- ~~• Establish a Conservation Fund In-Lieu Fee that is sufficient to fully fund the mitigation program;~~
- ~~• Identify standards for determining oak woodland and native oak tree impacts, outline impact mitigation requirements and options, identify technical report submittal requirements, and outline impact mitigation monitoring and reporting requirements;~~
- ~~• Define Heritage Trees and identify impact mitigation requirements;~~
- ~~• Provide mitigation alternatives for impacts to oak resources consistent with state-level requirements;~~
- ~~• Provide a flexible framework for oak resources mitigation via on-site and off-site mechanisms, including an in-lieu fee payment program;~~
- ~~• Develop an oak woodland in-lieu fee and an individual native oak tree-based in-lieu fee;~~
- Identify Priority Conservation Areas (PCAs) within large expanses of contiguous oak woodland habitat where land or conservation easements may be acquired from willing sellers to offset the effects of increased habitat loss and fragmentation elsewhere;
- ~~• Focus conservation easement acquisition efforts within areas not currently fragmented and which are unlikely to become fragmented through implementation of the General Plan;~~
- ~~• When weighing acquisition opportunities for conservation easements, generally maintain the relative acreages of all five oak woodland California Wildlife Habitat Relationship (CWHR) types (Valley Oak Woodland, Blue Oak Woodland, Blue Oak Foothill Pine, Montane Hardwood Woodland, and Montane Hardwood Conifer Woodland), but emphasize conservation of Valley Oak Woodlands, considered a “sensitive habitat” due to its relative rarity in the county;~~
- ~~• Encourage voluntary conservation and management of oak woodlands, including sustainable ranching and farming operations within working landscapes;~~
- ~~• Provide incentives (e.g., grants or cost sharing for fuels/fire risk management) for the voluntary protection of oak woodlands providing superior wildlife values on private land (COWCP legislative goal);~~

- ~~• Provide oak woodland conservation guidance to private landowners and County planners through education and outreach (COWCP goals);~~
- ~~• Identify minimum standards under which oak woodland conservation may occur outside of identified PCAs;~~
- Enhance oak woodland conservation by connecting acquisitions from willing sellers with existing open space, including publicly-owned lands that are managed for oak woodland habitat values (e.g., ecological preserves, recreation lands, rangelands, or natural resource areas) consistent with the County’s open space conservation goals (Goal 7.6; Policy 7.6.1.1); and
- Establish a database inventory of interested buyers and willing landowners wishing to participate in oak woodland acquisition and management mitigation options (Policy 7.4.2.8).

C.1.3 Oak ~~Woodland Habitat~~Resources in El Dorado County

1.3.1 Oak Woodlands

The term “oak woodland” is defined in the Oak ~~Woodland~~Woodlands Conservation Act (Article 3.5 (commencing with Section 1360) of Chapter 4 of Division 2 of the Fish and Game Code §1361) as “an oak stand with a greater than ten percent canopy cover or that may have historically supported greater than ten percent canopy cover.” For the purposes of this ~~OWMP~~ORMP, the conservation focus is on existing oak woodlands. ~~The General Plan uses the term “oak woodland” interchangeably and in the same context as “oak canopy.” For the purposes of mitigation, measurement of oak canopy shall apply.~~

~~The OWMP~~This ORMP addresses the same study area (below 4,000 feet elevation) and same categories of oak woodlands (California Fire and Resource Assessment Program, ~~or (FRAP)~~) as were addressed in the 2008 Oak Woodland Management Plan. These categories of oak woodland were also addressed in the 2004 General Plan. The General Plan EIR using FRAP data from 2002. More recent oak woodland distribution data for El Dorado County available via FRAP (2006) identifies ~~five~~six oak woodland types, which are listed in Table 1 below, along with the acreage of each category found within the OWMP study area. A sixth woodland type is Valley Foothill Riparian which may include Fremont cottonwood, willow and valley oak. Valley Foothill Riparian habitats in which valley oaks are the dominant tree species are considered oak woodlands under the OWMP. Both Valley Oak Woodland and Valley Foothill Riparian are designated as “sensitive habitats” in the General Plan EIR. Less than 3,500 acres of Valley Oak Woodland and none of the Valley Foothill Riparian appears on the FRAP mapping for El Dorado County. ORMP study area. Less than 3,500 acres of valley oak woodland is mapped for El Dorado County, which is designated as a “sensitive habitat” in the General Plan EIR. Finally, while coastal oak woodland is identified in the 2006 FRAP vegetation data set for the ORMP planning area, its presence is unlikely given 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 2006 FRAP data set and the area is likely another oak woodland type.

Table 1:
Acreege of Oak Woodlands Woodland Types in OWMP Studythe ORMP Planning Area
(2006 FRAP Data)

Oak Woodland Category Type	Abbreviation CWHR Code	Acreege	% of TotalPercent
Blue Oak Woodland oak woodland	BOW	42,400616	(17)0%
Blue Oak Foothill Pine oak-foothill pine	BOP	12,900915	(5)2%
Coastal oak woodland	COW	13	<0.1%
Montane Hardwood Woodland hardwood	MHW	155,900157,45 5	(63)62.8%
Montane Hardwood-Conifer Woodland hardwood-conifer	MHC	34,200322	(14)13.7%
Valley Oak Woodland oak woodland	VOW	3,400434	(1)4%
Total Oak Woodland in Study Area:		248,800250,75 5	(100)%

A thorough discussion of oak woodland habitat identification and values is ~~contained~~presented in Appendix A.

D.-1.3.2 Oak Trees

There are six primary native oak tree species in El Dorado County, including blue oak (*Quercus douglasii*), valley oak (*Quercus lobata*), California black oak (*Quercus kelloggii*), interior live oak (*Quercus wislizeni*), canyon live oak (*Quercus chrysolepis*), and Oregon 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.

1.4 Economic Activity, Land, and Ecosystem Values of Oak WoodlandsResources

Agriculture and recreation-based tourism are important economic generators in El Dorado County. ~~-Oak woodlandsresources~~ provide value for these activities. ~~-Oak woodlands provide, including~~ forage value for ranching, ~~and soil retention and watershed function benefits that~~ contribute to ~~the agricultural activities, and~~ aesthetic ~~qualities ofvalue for~~ agri-tourism. ~~-Oak woodlandsresources~~ contribute to soil retention and provide watershed benefits, which have benefits to the agricultural community. ~~-Deer and other game species are dependent on oak woodland habitat and provide recreational hunting opportunities, which can generate revenues for ranching land owners through hunting leases.~~ ~~-Oak woodlandsresources~~ contribute to a high-quality visit for recreation tourists, whose activities ~~among oak woodlands could~~may include camping, fishing, hiking, bird-watching, and equestrian trail riding.

Studies have also concluded that the presence of oak ~~woodlands on properties enhance~~resources enhances property value by providing shade, wind breaks, sound absorption, land use buffers, erosion control, and aesthetic beauty.

Oak ~~woodlands~~resources also contribute to healthy lands and watersheds. ~~They do this by providing habitat for animals, maintaining water quality, and improving soil characteristics. Oak woodlands have been acknowledged in studies to contributing to the control of climate effects.~~Oak resources have also been identified as a valuable component in greenhouse gas reduction, trapping and storing atmospheric carbon dioxide.

More information regarding economic activities, land values, and ecosystem values are available~~presented~~ in Appendix A.

E. 1.5 State-level Regulations

California Oak Woodlands Conservation Act

~~In September, 2004, the state~~ Public Resources Code ~~was amended to require~~(PRC) Section 21083.4 requires a county to determine (as part of its ~~CEQA~~project review required under the California Environmental Quality Act) whether a project may result in conversion of oak woodlands that will have a significant effect on the environment ~~(PRC 21083.4)~~. If it determines that a project may have a significant effect, a county shall require one or more oak woodland 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 seven 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. ~~This plan~~ORMP incorporates a range of mitigation alternatives ~~which~~that conform to these requirements.

2. Policy 7.4.4.4

~~A.~~No state-level regulations exist that require mitigation for impacts to individual oak trees that occur outside of oak woodlands; however, this ORMP identifies mitigation requirements for individual native oaks trees and Heritage Trees to meet the goals and objectives of the General Plan.

2.0 Oak Resources Impact Mitigation Requirements

The following sections outline mitigation requirements for impacts to oak resources. These mitigation requirements meet the goals and objectives of the General Plan and fulfill the requirements of General Plan Policy 7.4.4.4.

2.1 Applicability and Exemptions

~~Policy 7.4.4.4 of the 2004 General Plan applies~~The oak resources impact mitigation requirements outlined in this section apply to all new development projects or actions that would result in soil disturbance (see Appendix C for complete policy) on parcels that meet one of the following criteria:

- ~~• Less than or equal to one acre with at least 10% total~~impacts to oak woodlands and/or individual native oak trees, including Heritage Trees. Specifically, oak woodland canopy cover; or
- ~~• Greater than one acre with at least 1% oak woodland canopy cover.~~

~~Development, as affected by this Plan (OWMP),~~impact mitigation is required for any structureaction requiring discretionary development entitlements or approvals from El Dorado County. Individual native oak tree and Heritage Tree impact mitigation is required for any action requiring a building permit or grading activity requiring a grading permit, issued by El Dorado County and/or any action requiring discretionary development entitlements or approvals from El Dorado County. Activities that do not require one of these two permit types, such as agricultural grading requiring an agricultural grading permit, tree removal for safety reasons, or the clearing of land for purposes other than construction or grading, or discretionary approvals do not trigger the provisions of this plan. The following activities are specifically impact mitigation requirements included in this ORMP for oak woodlands or for individual native oak trees. However, all impacts to Heritage Trees are subject to the mitigation requirements contained herein. Oak woodland impacts or removal of individual native oak trees (excluding Heritage Trees) associated with the following projects or actions are exempted from Policy 7.4.4.4the mitigation requirements included in this ORMP:

- ~~• agricultural cultivation; and~~
- ~~• Projects or actions occurring on single-family residential lots of 1 acre or less that cannot be further subdivided;~~
- ~~• Actions taken pursuant to a County an approved Fire Safe Plan necessary to protect for existing structures, or in accordance with defensible space maintenance requirements for existing structures in state responsibility areas (SRA) as identified in California Public Resources Code (PRC) Section 4291 (actions associated with Fire Safe Plans or defensible space areas for new or proposed development are not exempt);~~

~~These exemptions are detailed below:~~

- Actions taken to maintain safe operation of existing utility facilities in compliance with state regulations (PRC 4292-4293 and California Public Utilities Commission (CPUC) General Order 95) (actions associated with development of new utility facilities, including transmission or utility lines, are not exempt);
- Road widening and realignment projects necessary to increase capacity, protect public health, and improve safe movement of people and goods in existing public rights-of-way (as well as acquired rights-of-way necessary to complete the project) where the new alignment is dependent on an existing alignment (new proposed roads within the County Circulation Element and internal circulation roads within new or proposed development are not exempt);
- 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, or within a sphere of influence as defined pursuant to California Government Code §56076;
- Agricultural Cultivation—The removal of native vegetation, including oaks, activities conducted for the purposes of producing or processing plant and animal products or the preparation of land for this purpose is exempt.—This is consistent with State PRC 21083.4.;

Existing Structure Defensible Space/Fire Safe Measures—The intent of this exemption is to exempt oak tree removal from mitigation in the 100-foot defensible space zone around an existing building or structure. Defensible space, for the purposes of this plan, is the 100-foot area around an existing structure, or to the property line, whichever is closer. Defensible space is required pursuant to Public Resources Code (PRC) 4291 and Title 14 California Code of Regulations (CCR) 1299.

Fuel modification actions, inside and outside of the 100-foot defensible space zone, are also exempt from Policy 7.4.4.4 mitigation. Examples are actions to ensure the safety of emergency fire equipment and personnel; to allow evacuation of civilians; to provide a point of attack or defense for firefighters during a wildland fire; to prevent the movement of a wildfire from a structure to the vegetated landscape; and/or the maintenance or creation of fuel breaks for fire safety, where no grading permit or building permit is applicable.

The County encourages the creation of defensible space around existing structures and the provisions of the OWMP are by no means intended to impede the fuels reduction required by law to protect existing structures. However, oak tree removal in the 100-foot defensible space zone, pursuant to PRC 4290 and Title 14 CCR 1270-1276 of the Fire Safe Regulations, and fuel modification actions pursuant to a Fire Safe Plan, inside and outside of the 100-foot defensible space zone for all new development projects, is not exempt from Policy 7.4.4.4 mitigation. The 100-foot defensible space zone, and fuels modification necessary for a Fire Safe Plan, is part of the project footprint and oak canopy removed shall be counted in the project total oak canopy removal. Any oak trees that can be safely retained, even if separated from the oak woodland, will count as oak canopy retained.

The County further encourages developers and landowners to review the 100-foot defensible space information available from CAL FIRE; specimens of oak trees and native habitat can be retained in the 100-foot defensible space by keeping lower branches of oak trees pruned, removing surface litter, separating trees and shrubs (horizontally), and reducing ladder fuels

(vertically separating trees and shrubs). See CAL FIRE's website or brochures for detailed information.

Because of the ability to safely retain some of the oak canopy within the defensible space, when calculating oak tree canopy loss with new subdivisions and parcel maps, an applicant may assume 80% retention of the oak tree canopy within the defensible space area around building pads or sites.

- Agricultural cultivation/operations, whether for personal or commercial purposes;
- Activities occurring on lands in Williamson Act Contracts or under Farmland Security Zone Programs;
- Actions taken during emergency firefighting operations and associated post-fire activities;
- Native oak tree removal when a tree exhibits high failure potential with the potential to injure persons or damage property, as documented in writing by a Certified Arborist or Registered Professional Forester; or
- When a native oak tree, other than a Heritage Tree, is cut down on the owner's property for the owner's personal use.

Additionally, ~~the OWMP~~this ORMP provides for reductions to oak ~~canopy~~woodland mitigation for affordable housing projects ~~as described below and provides for an exemption for public road safety projects and public utility projects.~~

~~Affordable Housing—Development~~that are not exempted as defined above. Specifically, development projects that propose a minimum of 10 percent of the dwelling units as income restricted affordable units, as defined by California Health and Safety Code §50052.5, 50053, and 50093, shall be granted a reduction in the amount of oak ~~canopy~~woodland that is required to be ~~protected under Option A, or the amount of fee to be paid under Option B~~mitigated, as set forth in Table 2. The reduction is to be applied to the mitigation ratio presented in Table 3. This reduction for affordable housing projects applies to oak woodland and individual native oak tree impacts and but not to Heritage Tree impacts. In no case shall the mitigation requirement be less than zero.

~~—Table 2: Affordable Housing Reduction—~~

Table 2
Affordable Housing Mitigation Reduction

Affordable Housing Type (Household Income Level)	% Reduction of <u>Percent</u> Oak Canopy <u>Woodland</u> Mitigation <u>Reduction</u> (for portion of project that is income restricted)
Very Low	200%
Lower	100%
Moderate	50%

~~Example: -A project proposes 25% of the units to be affordable in the lowerLower income category. -The amount of on-site retention or Conservation Fund In-Lieu Fee oak woodland mitigation ratio may be reduced by 25%. -A moderateModerate income project that provides all units at that income level may reduce the retention and/or fee oak woodland mitigation ratio by 50%. -A project with 20% very lowVery Low income units would receive a 40% reduction. (Note: PRC §21083.4(d) provides exemptions for affordable housing projects in urbanized areas for lower income households.)~~

~~Public Road and Public Utility Projects Exempt from Policy 7.4.4.4—Oak canopy removal necessary to complete County capital improvement projects are exempt from the canopy retention and replacement standards, when the new alignment is dependent on the existing alignment. This exemption applies to road widening and realignments which are necessary to increase capacity, to protect the public’s health, and to improve the safe movement of people and goods in existing public road rights of way, as well as acquired rights of way necessary to complete the project. This exemption shall also apply to removal of oak canopy necessary to comply with the safety regulations of the Public Utilities Commission and necessary to maintain a safe operation of utility facilities. The County shall minimize, where feasible, the impacts to oaks through the design process and right of way acquisition for such projects.~~

~~This exemption to the oak canopy retention and replacement standards does not apply to new roads or utility installation, or to internal circulation roads within new development.~~

~~B. Replacement Objectives~~

~~When determining the amount of oak canopy replacement on a parcel, consistency can be achieved by a combination of Policy 7.4.4.4 Options A and B. These replacement objectives may be achieved, subject to County approval, by: woodland mitigation ratio.~~

- ~~1. Replacement planting on site at a 1:1 canopy surface area ratio; or~~
- ~~2. Contributing to the County’s INRMP/Conservation fund at a 2:1 ratio; or~~
- ~~3. Acquiring an off-site conservation easement on oak woodlands at a 2:1 ratio; or~~
- ~~4. A combination of 1, 2, or 3 above.~~

~~C. Mitigation Option A~~

~~Option A sets forth limitations on the amount of oak canopy that may be removed with each project, based on calculations of the percent of oak canopy existing on the subject parcel. Oak canopy must be retained in the amount established in the Table of Policy 7.4.4.4, provided below as Table 3.~~

~~—————Table 3: Canopy Retention Requirements from Policy 7.4.4.4—————~~

~~2.2 Oak Woodland Permits and Mitigation~~

~~The policy of the County is to preserve oak woodlands when feasible, through the review of all proposed development activities where woodlands are present on either public or private property, while at the same time recognizing individual rights to develop private property in a~~

reasonable manner. As such, the County shall require mitigation for impacts to oak woodlands. The following sections outline oak woodland permit and mitigation requirements and Figure 1 outlines the permit and mitigation process.

2.2.1 Oak Woodland Removal Permits

An oak woodland removal permit shall be required for a discretionary project to authorize removal of any trees that are a component of an oak woodland. An oak resources technical report shall accompany any oak woodland removal permit application submitted to the County. The County may impose such reasonable conditions of approval as are necessary to protect the health of existing oak woodlands, the public, and the surrounding property. Oak woodland removal permit review will occur concurrently with the environmental review process for discretionary projects. If an oak woodland removal permit application is denied, the County shall provide written notification, including the reasons for denial, to the applicant.

Commercial firewood cutting operations in oak woodlands shall also require an oak woodland removal permit. In reviewing an oak woodland removal permit application for firewood cutting operations, the County shall consider the following:

- Whether the removal of the tree(s) would have a significant negative environmental impact;
- Whether the proposed removal would not result in clear-cutting, but would 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 oak woodland coverage would be.

Any person, firm, or corporation that is not exempt from the standards included in this ORMP who removes oak trees within an oak woodland without first obtaining an oak woodland removal permit shall be subject to the penalties identified in El Dorado County Code Section 13.12.030. Any monies received as fines for illegal oak woodland tree removal shall be deposited in the County’s Oak Woodland Conservation Fund.

2.2.2 Oak Woodland Mitigation

In order to incentivize on-site retention of oak woodlands, mitigation for impacts to oak woodlands shall be based on the ratios presented in Table 3.

Table 3
Oak Woodland Mitigation Ratios

<u>Percent Existing Canopy Cover of Oak Woodland Impact</u>	<u>Canopy Cover to be Retained Oak Woodland Mitigation Ratio</u>
<u>80—1000-50%</u>	<u>60% of existing canopy cover 1:1</u>

Table 3
Oak Woodland Mitigation Ratios

<u>Percent Existing Canopy Cover of Oak Woodland Impact</u>	<u>Canopy Cover to be Retained Oak Woodland Mitigation Ratio</u>
60—79	70% of existing canopy cover
40—69	80% of existing canopy cover
20—39	85% of existing canopy cover
10—19	90% of existing canopy cover
1—9 for parcels > 1 acre <u>50.1-75%</u>	90% of existing canopy cover <u>1.5:1</u>
<u>75.1-100%</u>	<u>2:1</u>

~~In addition to retention, Option A requires that removed~~As presented in Table 3, oak canopy woodland impacts shall be replacedmitigated at a 1:1 ratio. ~~The size of the designated where 50 percent or less of on-site oak woodlands are impacted, at a 1.5:1 ratio where 50.1 to 75 percent of on-site oak woodlands are impacted, and at a 2:1 ratio where greater than 75 percent of on-site oak woodlands are impacted. Non-exempt County road projects shall provide oak woodland mitigation at a ratio of 1:1 regardless of the amount of onsite retention. Mitigation for oak woodland impacts shall be addressed in an oak resources technical report. Options for oak woodland impact mitigation requirements include:~~

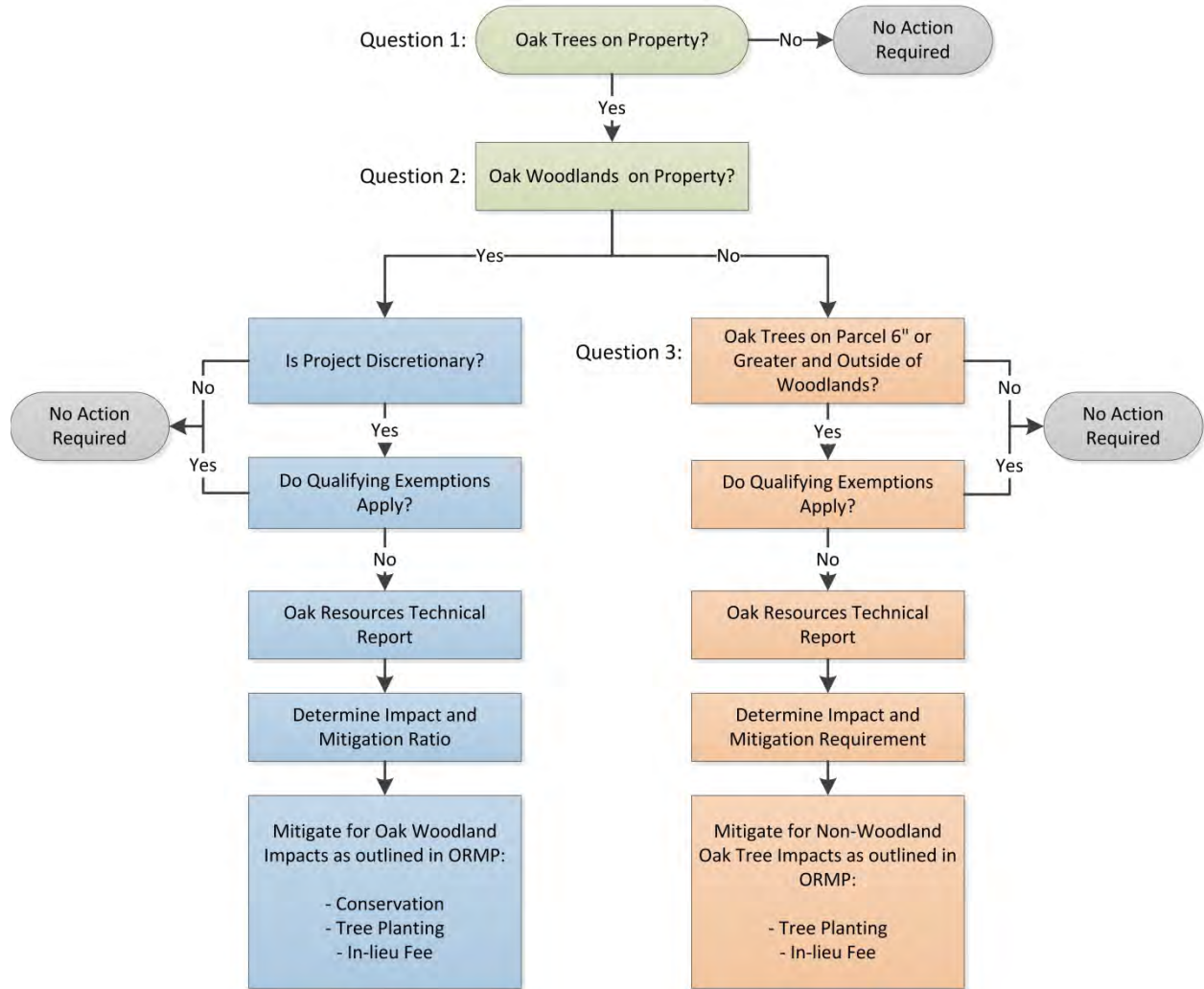
- ~~1. Deed restriction (on-site), conservation easement dedication (on-site), and/or conservation easement acquisition (off-site), and/or acquisition in fee title by a land conservation organization (on-site and/or off-site);~~
- ~~2. In-lieu fee payment;~~
- ~~3. Replacement planting on-site within an area subject to a deed restriction or conservation easement;~~
- ~~4. Replacement planting off-site within an area subject to a conservation easement or acquisition in fee title by a land conservation organization; or~~
- ~~5. A combination of numbers 1 through 4 above.~~

~~Consistent with California PRC 21083.4, replacement areaplanting shall equalnot account for more than 50 percent of the total areaoak woodland mitigation requirement.~~

Figure 1. Oak Resources Permitting and Mitigation Process

Oak Resources Process Flow Chart

(Must Answer Questions 1, 2, and 3)



2.3 Individual Native Oak Tree and Heritage Tree Permits and Mitigation

The policy of the oak canopy cover County is to preserve native oak trees when feasible, through the review of all proposed to be removed. For example, 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. As such, the County shall require mitigation for impacts to individual native oak trees and Heritage Trees.

2.3.1 Oak Tree Removal Permits

A tree removal of 2 acres of oak canopy requires permit shall be required by the County for removal of any individual native oak tree not located within an oak woodland and/or for removal of any Heritage Tree. An oak resources technical report shall accompany any tree removal permit application submitted to the County. 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. Oak tree removal permit review will occur concurrent with the environmental review process for discretionary projects or concurrent with other permit review and processing for ministerial projects (e.g., building permits). If a tree removal permit application is denied, the County shall provide written notification, including the reasons for denial, to the applicant.

Commercial firewood cutting operations shall also require a tree removal permit if not approved under an oak woodland removal permit. In reviewing a tree removal permit application for commercial firewood cutting operations, the County shall consider the following:

- Whether the removal of the tree(s) would have a significant negative environmental impact;
- Whether the tree proposed for removal is a Heritage Tree;
- Whether replanting would be necessary to ensure adequate regeneration;
- Whether the removal would create the potential for soil erosion; and
- Whether any other limitations or conditions should be imposed in accordance with sound tree management practices.

Any person, firm, or corporation that is not exempt from the standards included in this ORMP who removes an oak tree without first obtaining an oak tree removal permit shall be subject to the penalties identified in El Dorado County Code Section 13.12.030. Any monies received as fines for illegal tree removal shall be deposited in the County's Oak Woodland Conservation Fund.

2.3.2 Oak Tree Mitigation

Mitigation for removal of individual native oak trees shall be based on an inch-for-inch replacement of 2 acres of oak canopy; removal of 5,000 square feet of oak canopy requires standard and shall be quantified and outlined in an oak resources technical report (defined in Section 6.0). Mitigation for removal of Heritage Trees shall be based on an inch-for-

~~inch replacement of 5,000 square feet of oak canopy standard at a 3:1 ratio and shall also be quantified and outlined in an oak resources technical report.~~

~~D. On Site Mitigation—Replanting Options for individual native oak tree and Heritage Tree impact mitigation requirements include:~~

- ~~1. Replacement (~~Option A~~) planting on-site within an area subject to a deed restriction or conservation easement;~~

~~As provided under Option A, Policy 7.4.4.4, all oak canopy removed for development must be replaced at a 1:1 ratio. In lieu of on-site replacement, where such replacement is not feasible due to soil/habitat considerations and/or land use constraints or not desirable by the applicant, off-site mitigation may be substituted for replacement plantings by payment of the Conservation Fund In-Lieu Fee at a 1:1 canopy surface area ratio or dedication of an off-site conservation easement as described in Section 4.C, also at a 1:1 ratio. Off-site replacement at a 1:1 ratio is offered to avoid circumstances that would result in replacement plantings occurring in marginal habitat or at the expense of other existing habitat. The following provisions apply to on-site and off-site replacement:~~

- ~~2. Replacement planting off-site within an area subject to a conservation easement or acquisition in fee title by a land conservation organization;~~
- ~~3. In-lieu fee payment; or~~
- ~~4. A combination of numbers 1 through 3 above.~~

~~Mitigation for individual native oak tree and/or Heritage Tree impacts shall be addressed in an oak resources technical report.~~

2.4 Replacement Planting Guidelines

~~This section provides guidelines for projects that elect to mitigate via replacement planting. Replacement plantings may be accepted if ~~adequate openings exist on-site and~~ the replanting area ~~likely would~~ can support oak ~~woodland resources~~ (e.g., proper soil type and general environment). The intent is not to remove existing natural habitats for replacement plantings or to create a continuous canopy that would reduce wildlife value or contribute to increased fire hazard. Replacement plantings ~~shall meet the County's replanting and replacement standards and~~ is ~~are~~ subject to County approval. ~~and shall be completed as follows:~~~~

- ~~• Oak canopy replacement plans shall be prepared by a qualified professional (such as a certified arborist, registered professional forester, certified rangeland manager, or biologist, as described in Section 8.A, Appendix A). Replacement plans shall address the following: (For more detailed criteria, please see Appendix E.)~~
- ~~• An oak planting mitigation plan consistent with the standards established in the 2004 University of California publication, Oak Woodland Impacts: For impacts to oak woodlands, planting density shall be based on recommendations made by a qualified professional and presented in an oak resources technical report. Planting density shall be based on the density of impacted oak woodlands, which shall be documented in the oak resources technical report. Replacement trees shall be regularly monitored and~~

maintained and shall survive for a period of 7 years, calculated from the day of planting. Acorns may be used instead of saplings or one gallon trees. If acorns are used, they shall be planted at a 3:1 ratio as determined by the tree replacement formula. The replacement is as follows:

Replacement planting from saplings or one-gallon trees, that are locally sourced, shall follow this formula for ratios:

(Impacted Oak Woodland Area in acres) x (Impacted Oak Woodland Density in trees/acre) = the total number of replacement trees to be replanted

Replacement replanting by acorn shall be from locally-sourced acorns (acorns gathered locally). The replacement ratio by acorn replanting shall be obtained by the following formula

(Impacted Oak Woodland Area in acres) x (Impacted Oak Woodland Density in trees/acre) x (3 acorns per tree) = the total number of acorns to be replanted

This ORMP does not preclude over-planting so that the 90-percent survival rate may be accomplished at the end of the 7-year maintenance and monitoring period. Replacement planting may use a combination of replacement tree sizes (saplings, one-gallon, acorns) if consistency with these ratios is maintained and documented in an oak resources technical report. Monitoring reports shall be submitted to the County at least annually during the 7-year maintenance and monitoring period and documentation of replacement planting success shall be provided to the County at the end of the 7-year monitoring and maintenance period (final monitoring report).

- Individual Native Oak Tree and Heritage Tree Impacts: For impacts to individual native oak trees that are not otherwise mitigated, replacement planting shall be calculated based upon an inch-for-inch replacement of removed individual native oak trees. The total of replacement trees shall have a combined diameter of the tree(s) removed. Replacement tree species shall be the same proportion as those removed. For the purposes of this requirement, a 15-gallon replacement tree is assumed to represent 1-inch of trunk diameter. Replacement trees shall be planted on-site and monitored and maintained for a period of 7 years, calculated from the day of planting. Documentation of replacement planting success shall be provided to the County at the end of the 7-year monitoring and maintenance period. Any trees that do not survive the 7-year monitoring and maintenance period shall be replaced by the property owner and shall be monitored and maintained for 7 years. Replacement tree sizes may vary and may include acorn plantings, based on documentation of inch-for-inch replacement consistency included in an oak resources technical report. If acorns are used, they shall be planted at a 3:1 ratio (3 acorns for every 1-inch of trunk diameter removed) under the direction of a qualified professional. The replacement planting area shall be suitable for tree planting, shall not conflict with current or planned land uses, and shall be large enough to accommodate replacement plantings at a density no greater than 200 trees per acre. This ORMP does not preclude over-planting so that the minimum survival rate may be accomplished at the end of the 7-year maintenance and monitoring period. Monitoring reports shall be submitted to the County at least annually during the 7-year maintenance and monitoring period and documentation of replacement planting success shall be provided to the County at the end of the 7-year monitoring and maintenance period (final monitoring report).

For impacts to Heritage Trees, replacement planting shall adhere to the standards identified for individual native oak trees; however, replacement totals shall be calculated based upon an inch-for-inch replacement at a 3:1 ratio.

- On-Site Replacement Planting: On-site replacement trees are to be planted to the satisfaction of the Development Services Director. The replacement planting area shall be suitable for tree planting, shall not conflict with current or planned land uses, and shall be large enough to accommodate replacement plantings at a density equal to the density of oak woodlands impacted. A deed restriction or conservation easement to the satisfaction of County Counsel and the Director shall be required to ensure the long term conservation of any on-site replacement trees planted. The Conservation Easement shall be in favor of the County or a County-approved conservation organization. Maintenance and monitoring shall be required for a minimum of 7 years after planting. Any trees that do not survive during this period of time shall be replaced by the property owner and monitored to ensure survival for a period of 7 years from the date of planting.
- Off-Site Replacement Planting: The applicant may be permitted to procure an off-site planting area for replacement planting, preferably in proximity and/or in connection with oak woodlands contiguous to the project site or within or adjacent to a PCA or an Important Biological Corridor as designated in the General Plan or important ecological area as identified in the Initial Inventory and Mapping (June 2010). The replacement planting area shall be suitable for tree planting, shall not conflict with current or planned land uses, and shall be large enough to accommodate replacement plantings at a density no greater than 200 trees per acre. A conservation easement to the satisfaction of County Counsel and the Development Services Director shall be required to ensure the long term maintenance and preservation of any on-site replacement trees planted. The Conservation Easement shall be in favor of the County or a County approved conservation organization. Maintenance and monitoring shall be required for a minimum of 7 years after planting. Any trees that do not survive during this period of time shall be replaced by the project applicant and monitored to ensure survival for a period of 7 years from the date of planting.
- Replacement Planting Plans: Oak resources replacement planting plans shall be prepared for all replacement planting efforts (on- and off-site) by a qualified professional and may be prepared in conjunction with oak resources technical report. Replacement planting plans shall address the following:
 - Consistency with the accepted native oak tree planting standards, including those outlined in Regenerating Rangeland Oaks in California; (McCreary 2009), How to Grow California Oaks; (McCreary 1995), How to Collect, Store and Plant Acorns; (McCreary undated), and other publications and protocols that may be established by the University of California—Integrated Hardwood Range Management Program, Division of Agriculture and Natural Resources.
 - The suitability of the site ~~for oak woodlands~~ shall be demonstrated with soil information, aerial photography, or other resources. ~~The qualified professional shall demonstrate that the replanting plan does not remove existing non-oak woodland and enhances existing oak woodland habitat.~~

- The density of replanting shall be determined by the qualified professional, based on accepted practice and current research, but shall not exceed 200 trees per acre.
- The intent of the replacement planting plan is to provide replacement oak trees or acorns with a similar mix of species as those removed, however, the species may vary based on site specific conditions, as determined by the qualified professional.
- Acorns or saplings for replanting shall be from local sources, when available, to maintain local genetic strains.
- Replacement planting ~~should~~shall not be located within the ~~0-100'~~100-foot defensible space zone from an existing or proposed structure unless otherwise consistent with CAL FIRE's defensible space guidelines and fuels reduction requirements mandated under ~~California Public Resources Code (PRC) §PRC~~ 4291.
- Replacement plantings shall be maintained in a manner determined by the qualified professional, based on the site-specific conditions, which may include weed control, irrigation ~~(if appropriate), herbivory/grazing,~~ tree protection, pest management, and/or fertilization, ~~and planting methods.~~
- The replacement planting plan shall identify the frequency and methods of maintenance and monitoring, as well as contingencies or alternatives if the success criteria are not met annually or at the end of the monitoring term along with a means to ensure compliance with the replacement planting plan. The monitoring term shall be ~~seven~~7 years (PRC 21083.4).
- Best Management Practices (BMPs) for protection of retained oaks during and after construction (refer to Appendix D).
- An estimate of the total costs associated with implementation of the replacement plan.

- ~~An oak tree easement shall be recorded on each property by the County, project applicant, or landowner for all replanting areas approved by the County as mitigation, prior to issuance of a permit.~~

E. Mitigation Option B

~~Option B does not require the retention of a minimum percentage of oak canopy on site. This mitigation alternative is intended to preserve existing oak woodland canopy of equal or greater biological value as those lost. To compensate for both habitat loss and fragmentation, the preservation mitigation ratio was set at 2:1 based on the acreage of oak canopy affected. For purposes of the fee program, the standard for off site mitigation under Option B is payment of the Conservation Fund In-Lieu fee at a ratio of 2:1. In other words, for each acre of oak canopy that is lost, the payment is the fee per acre multiplied by two. The Conservation In-Lieu Fee Mitigation Method is described in detail in Appendix B.~~

~~Alternatives to the Conservation Fund In-Lieu Fee, including dedication of off site conservation easements by a landowner/developer as direct mitigation at a 2:1 ratio are considered the~~

~~functional equivalent of the Option B in-lieu fee, and will be permitted, subject to County approval. While landowners/developers will not have to pay the Acquisition Component of the fee as they are themselves acquiring a conservation easement, they are still required to pay the Management Component and Monitoring Component of the Conservation Fund In Lieu Fee to provide for the ongoing endowment for management and monitoring.~~

F.2.5 Oak Resources Technical Reports

~~This section provides guidelines for projects that require preparation of an oak resources technical report. An oak resources technical report is a stand-alone report prepared by a qualified professional that includes the following:~~

- ~~• Identification, location, and quantification of all oak resources on the property:
 - ~~○ Oak woodlands shall be mapped and assessed in accordance with the CDFG 2009 *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* and subsequent updates, and the *List of Vegetation Alliances and Associations* (CDFG 2010) and subsequent updates;~~
 - ~~○ Data collected for individual native oak trees and Heritage Trees shall include: location, species, trunk diameter (dbh), height, canopy radius, and general health and structural condition;~~~~
- ~~• Identification and quantification of project-related impacts to oak resources;~~
- ~~• Measures identifying how specific trees and woodlands (or retained portions thereof) shall be protected during development and related work;~~
- ~~• Proposed actions to mitigate impacts to oak resources, consistent with the requirements included in this ORMP:
 - ~~○ For replacement planting, the report shall provide detail regarding the quantity, location, planting density, and acorn/seedling source consistent with the definition of Replacement Planting included in this ORMP;~~
 - ~~○ For conservation easement placement/acquisition and/or land acquisition in fee title, the report shall provide documentation of easement placement on-site and/or documentation of easement or land acquisition off-site to the satisfaction of the County;~~
 - ~~○ For in-lieu fee payment, the report shall document the quantity of impacts (acreage of oak woodlands and/or total diameter inches of individual native oak trees/Heritage Trees) and the total in-lieu fee payment necessary (presented separately for oak woodlands, individual native oak trees, and Heritage Trees, where applicable);~~~~
- ~~• Identification of responsible parties;~~
- ~~• Identification of maintenance, monitoring, and reporting requirements;~~
- ~~• Analysis of non-PCA conservation easement areas, where applicable;~~

- A site map(s) depicting the location of all oak woodlands, individual native oak trees, and Heritage Trees and the location of all proposed project-related improvements (including, but not limited to, the limits of grading, fuel modification/defensible space areas, and above- and below-ground infrastructure). The site map(s) shall also clearly identify impacted oak resources.

2.6 Mitigation Program Flexibility

~~The OWMP~~This ORMP provides for flexibility in meeting ~~the oak canopy resources~~ mitigation requirements. An applicant for a development project may comply with the provisions of ~~Policy 7.4.4.4 by meeting the retention and 1:1 replacement requirements of Option A, providing off-site mitigation through the payment of the OWMP fee as established by the OWMP and the implementing fee ordinance, or a combination of the two provisions. Additionally, off this~~ ORMP by combining mitigation options, except as specified for replacement planting to mitigate oak woodland impacts. Off-site mitigation may be accomplished through private agreements between the applicant and another private party consistent with the ~~2:1 replacement provisions of Option B standards included in this ORMP~~ and subject to approval by the County ~~of the suitability of the oak woodland to be protected.~~ When dedication of off-site conservation easements outside of the PCAs is proposed by a developer, ~~a biological study shall be required for the off-site mitigation location to demonstrate that the site is of equal or greater biological value as the oak woodland proposed to be removed. The biological study shall evaluate and demonstrate parity of habitat elements such as snags, large woody debris, and the diversity and structure of the understory between the oak woodlands lost and those being protected. If the off-site conservation easement is to mitigate for Valley Oak Woodland removed, then the easement must be within Valley Oak Woodland of equal or greater biological value. the proposed site shall be prioritized based on the standards set forth in this ORMP (Section 4.0).~~ A developer that dedicates a County-approved conservation easement is not subject to the ~~Acquisition Component~~acquisition component of the ~~Conservation Fund In-Lieu Fee~~in-lieu fee, but is subject to the ~~Management Component~~management component and ~~Monitoring Component~~monitoring component of the fee.

3. Conservation Fund In-Lieu Fee Methodology

The Conservation Fund

3.0 In-Lieu Fee

The methodology for determining the in-lieu fee for impacts to individual native oak trees and oak woodlands is provided in detail in Appendix B. In general, the in-lieu fee for oak woodlands is based on the costs of acquisition of land and conservation easements, along with management, monitoring, and administrative costs. For individual native oak trees, the in-lieu fee is based on an inch-for-inch replacement approach that accounts for costs associated with purchasing and planting 1-inch of trunk diameter.

3.1 Oak Woodlands

As noted, the in-lieu fee for impacts to oak woodlands is based on the costs of acquisition of land and conservation easements, along with management, monitoring, and administrative costs. A breakdown of costs per acre is provided in Table 4. Details of the analysis to establish the fee is contained in Appendix B.

~~Table 4: Conservation Fund In-Lieu Fee~~

Table 4
Oak Woodland In-Lieu Fee

Activity	Cost Per per Acre
Acquisition ¹	\$ 2,300 <u>To be provided</u>
Management ²	\$1,200 <u>To be provided</u>
Monitoring ³	\$ 1,200 <u>To be provided</u>
Total Cost/ Fee Per per Acre	\$4,700 <u>To be provided</u>

~~(1) Conservation easement on rural land acquisition of 125 acres, which is the average parcel size within the PCAs. Acquisition costs include the easement land value (approximately \$1,800, or 40% discount value) and conveyance costs.~~

~~(2) Includes biological survey/baseline documentation, weed control and fuels treatment.~~

~~(3) Includes endowment for on-going monitoring.~~

~~As providedThe in-Option B of Policy 7.4.4.4, off-site mitigation in the form of-lieu fee payment of the fee option for impacts to oak woodlands shall be made at a 2:1 canopy surface area-the ratio, requiring the payment of \$9,400 outlined in Table 3, which provides for every acre of oak canopy removed in excess of the amount provided in the table of Option A. To meet the Option A 1:1 replacement standard, an applicant may opt to pay the Conservation Fund In-Lieu Fee at the 1:1 rate for that portion a variable mitigation ratio depending on the percentage of oak canopy removed consistent with the table. If payment into the Conservation Fund is utilized for the replacement portion of Option A, then on-site retention requirements would still apply.~~

woodland impacted on a project site. The County shall deposit all Conservation Fund In-Lieu oak woodland in-lieu fees into amits Oak Woodland Conservation Fund, which shall be used to acquire-fund the acquisition of land and/or conservation easements from willing sellers in-the PCAs as described below in Section 4.- This fund shall also be used for ongoing monitoring and management activities, including but not limited to fuels treatment, weed control, periodic

surveys, and reporting. ~~The County may provide~~ It is anticipated that conservation easements and mitigation lands would be held by a land conservation organization; therefore, ongoing monitoring and management services by employees or contract management and monitoring activities with a qualified firm, individual, outside agency, or non-profit organization, would be conducted by such organizations. Funding to support the ~~identification of willing sellers,~~ negotiation of the purchase price, and oversight of the land transaction is included in the management component of the ~~Conservation Fund In-Lieu Fee~~ oak woodland in-lieu fee.

As costs ~~for off site mitigation~~ change over time, there will be a need to adjust the fee to closely match future cost increases or decreases. Appendix B details the fee adjustment approach. ~~A~~ report regarding fee adjustments will be included in ~~an annual~~ a report to be submitted to the Planning Commission and Board of Supervisors ~~each~~ every other March, as described in Appendix A. ~~The first fee adjustment study would occur at least 12 months after adoption of the OWMP.~~ this ORMP.

4. ~~Priority Conservation Areas~~

A. ~~Identification of Priority Conservation Areas~~

3.2 ~~Oak Trees~~

For individual native oak trees, the in-lieu fee is based on an inch-for-inch replacement approach that accounts for costs associated with purchasing and planting 1-inch of trunk diameter. Specifically, a 15-gallon size native oak tree is assumed to represent one inch of trunk diameter. The per-inch mitigation fee is then based on the costs to purchase and plant one 15-gallon native oak tree. To determine the per-inch fee, the median price of 15-gallon oak trees was calculated from a survey of eight nurseries in El Dorado County and the surrounding region. This price was then doubled to account for costs associated with planting. Doubling the per-tree cost to account for purchasing and planting a tree (inclusive of labor and materials) is a standard approach in the landscape/habitat restoration industry. Based on this analysis, the per-inch individual native oak tree mitigation fee was calculated to be \$120.00. In the case of Heritage Trees, the per-inch mitigation fee shall be \$360.00 (3:1 ratio).

As described in this ORMP, this per-inch mitigation fee may be paid as mitigation for impacts to individual native oak trees or Heritage Trees. The per-inch fee shall be multiplied by the total number of trunk diameter inches removed (dbh). The County shall use collected per-inch mitigation fees for native oak tree planting projects or may use such funds to acquire oak woodland conservation easements, with documentation that the number of diameter inches meets those for which mitigation fees have been paid.

As costs change over time, there will be a need to adjust the fee to closely match future cost increases or decreases. Appendix B details the fee adjustment approach. A report regarding fee adjustments will be included in a report to be submitted to the Planning Commission and Board of Supervisors every other March, as described in Appendix A. The first fee adjustment study would occur at least 12 months after adoption of this ORMP.

4.0 Priority Conservation Areas

4.1 Identification of Priority Conservation Areas

Figure 1 identifies the areas in which acquisition of conservation easements ~~shall be acquired~~ from willing sellers shall be prioritized using the Oak Woodland Conservation Fund generated by the payment of the ~~Conservation Fund In-Lieu Fee~~ in-lieu fees described above. ~~These areas were identified using the FRAP classification of the five oak woodland habitat types in the county. After those areas were mapped, the areas were narrowed down to large expanses consisting of 500 acres or more. Those large expanses were further narrowed to lands where oak woodland habitat would not likely undergo substantial fragmentation and oak woodland conservation would be consistent with the 2004 General Plan land use designations. Areas specifically excluded were lands within Community Regions and Rural Centers and lands designated Low Density Residential. These resulting areas are classified as Priority Conservation Areas (PCAs).~~

The 500-acre PCAs are generally made up of 40-acre and larger privately owned parcels. ~~A breakdown of parcel sizes within the large expanses is shown in Table 5. A more detailed description of the mapping process and data used to identify PCAs is provided in Appendix G. A. Figure 12 also shows existing public lands with high-value oak woodlands contiguous to the PCAs.~~

**Table 5—
PCA Parcel Statistics**

Parcel size (Acres)	#Number of parcels #Parcels	Acres
40-60	170	7,666.3
60.1-120	155	13,176.7
120.1-340	175	31,674.3
340.1+	29	13,535.5
Total	529	66,052.8
	Avg. Size	124.9
	Median Size	84.3

~~*Data produced using parcel data from El Dorado County and the PCA shapefile for the Draft Plan (VOWH_PRVT_grtr500ac.shp)~~

Oak woodland offered as mitigation must be configured in such a manner as to best preserve the integrity of the oak woodland ecosystem. ~~Priority should be given to conserving oak woodland habitat within PCAs, particularly areas that are adjacent to existing woodlands under or subject to anyling west of the National Forest within the Important Biological Corridor, overlay, under a conservation easement, on public lands, in open space lands, in riparian corridors, or ecological preserves or other PCAs lying west of the National Forest.~~

~~Valley Oak Woodland~~ woodlands within the PCAs will be specifically acquired conserved to mitigate for losses of Valley Oak Woodland oak woodlands. Prioritization will be given to areas that provide a diversity of oak woodland types. The acreage of oak woodlands conserved shall be based on the quantity of those impacted as a result of new development. ~~Only Valley~~

Figure 2. Priority Conservation Areas, Oak Woodlands will be targeted this way, and Public Lands in order to provide a method ensuring that this General Plan designated “sensitive habitat” is adequately preserved. If the Valley Oak Woodland habitat within currently designated PCAs becomes insufficient, then additional acreage of this habitat type will be added to the PCAs as necessary upon annual review of the OWMP. El Dorado County

The OWMP establishes an oak woodlands resource base that, when managed for conservation and preservation purposes, conserves a substantial portion of oak woodland habitat to offset the effects of increased habitat loss and fragmentation elsewhere in the county. This approach is considered superior to one that attempts to conserve oak woodlands in areas designated for development. Such areas are less desirable for mitigation lands because they are more expensive, have reduced habitat values, and would conflict with approved General Plan land use designations. Subsequent adoption and implementation of the INRMP, and incorporation of this plan into that document, will ensure connectivity between the PCAs. The INRMP will also address north-south connectivity across Highway 50 and the potential role of oak woodlands less than 40 acres in maintaining connectivity between larger expanses of oak woodlands. Existing public lands, Important Biological Corridors as identified on the 2004 General Plan land use diagram, and stream setback requirements provided under Policy 7.3.3.4 provide sufficient interim connectivity to provide wildlife movement between the PCAs (See Figure 2).

B:

This ORMP establishes a strategy for conserving oak woodland habitat to offset the effects of increased habitat loss and fragmentation elsewhere in the county. Identification of PCAs and standards for prioritizing conservation of oak woodlands outside of PCAs (Section 4.3) fulfills the oak woodlands portion of the conservation requirements outlined in General Plan Policy 7.4.2.8.

4.2 Management of PCAs

Existing ~~native~~-oak ~~woodland~~woodlands within the PCAs identified as mitigation for project impacts, whether on or off ~~the~~ project site, will be protected from further development through a conservation easement granted to the County or a land conservation group approved by the County ~~or by acquisition in fee title by a land conservation group~~. Management activities would be conducted by land conservation organizations and may include, but are not limited to, one or more of the following activities, as determined appropriate and/or necessary through monitoring of the sites: inspections, biological surveys, fuels treatment to reduce risk of wildfire and to improve habitat, weed control, database management, and mapping. Agricultural use (i.e., grazing) shall be allowed in conserved oak woodlands as long as the activity occurred prior to the establishment of the conservation easement, the spatial extent of the agricultural use is not expanded on conserved lands, and the agricultural use does not involve active tree harvest or removal (e.g., fuelwood operations, land clearing for crop planting, etc.).

C. Conservation Easements

Conservation easements for oak woodlands shall be granted to the County in perpetuity. **4.3 Conservation Outside of PCAs**

The PCAs have been delineated to prioritize the acquisition of oak woodland conservation easements either by the County (using the funds collected in the County's Oak Woodland Conservation Fund) or privately by developers. However, acquisition of oak woodland conservation easements outside of the PCAs may also occur. The following criteria shall be used for selecting potential oak woodlands conservation easements outside of PCAs, consistent with General Plan Policy 7.4.2.8 (D):

- Location within IBCs;
- Location within other important ecological areas as identified in the Initial Inventory and Mapping (June 2010);
- Woodlands with diverse age structure;
- Woodlands with large trees and dense canopies;
- Opportunities for active land management to be used to enhance or restore natural ecosystem processes;
- Potential to support special-status species;
- Connectivity with adjacent protected lands;
- Parcels that achieve multiple agency and community benefits;

- Parcels that are located generally to the west of the Eldorado National Forest; and
- Parcels that would preserve natural wildlife movement corridors such as crossings under major roadways (e.g., U.S. Highway 50 and across canyons).

Conservation easement acquisition as mitigation of oak woodland impacts that occurs outside of PCAs shall occur on minimum contiguous habitat blocks of 5 acres. For transactions where a conservation easement outside of the PCAs is negotiated between a developer and a private seller, an analysis of the proposed oak woodland conservation area shall be performed by a qualified professional to demonstrate that the proposed conservation area is of equal or greater biological value as the oak woodland proposed to be removed. The analysis of conservation areas shall be included as a component of an oak resources technical report.

Should the County elect to purchase oak woodlands conservation easements outside of PCAs using funds from its Oak Woodland Conservation Fund, an analysis of the proposed oak woodland conservation area shall be performed by a qualified professional to determine its suitability in meeting the criteria listed above.

4.4 Conservation Easements

Where the mitigation requirements of this ORMP are met through conservation easements for oak woodlands, whether within or outside of PCAs, the conservation easement shall be granted in perpetuity to the County or a land conservation group approved by the County. The easement shall be provided on a form approved by the County and shall be recorded with the County Clerk/Recorder prior to issuance of a grading or building permit, filing of a parcel or final map, or otherwise commencing with the project.

5. Application of OWMP to Development Review Process

4.5 Deed Restrictions

Where the mitigation requirements of this ORMP are met through deed restrictions for oak woodlands, whether within or outside of PCAs, the deed restriction shall commit the property to oak woodland conservation use in perpetuity. The deed restriction shall be recorded with the County Clerk/Recorder prior to issuance of a grading or building permit, filing of a parcel or final map, or otherwise commencing with the project.

5.0 Application of ORMP to Development Review Process

Determination of the applicability of the ~~OWMP~~ORMP to a development project shall be made as follows:

1. ~~1.~~ 1.—Planning staff and applicant ~~determines~~determine if oak ~~woodland exists~~resources exist on the ~~parcel~~property and if the proposed project ~~impacts~~would impact any of the oak ~~canopy~~resources.
2. ~~2.~~ 2.—Oak ~~canopy loss is calculated by a consultant hired by the applicant, utilizing either an on-site survey~~resources are mapped, quantified, and categorized (oak woodland, individual native oak tree, and/or Heritage Tree) by a qualified professional, aerial photography, or other means acceptable to the County to determine total oak canopy area and the area proposed to be removed as a part of the project. Canopy loss is hired by the applicant and documented in an oak resources technical report.
- 2.3. Oak resources impacts are quantified in the oak resources technical report. Oak resources impacts are calculated by identifying all disturbed areas as proposed, including:
 - a. ~~—~~ a.—Roads, driveways, and access drives;
 - b. ~~—~~ b.—Graded areas for building pads, parking lots, staging areas, and other improvements; and
 - c. ~~—~~ c.—Other disturbed areas resulting in ~~tree removal~~oak resources impacts including septic system leach fields ~~and fire safety, above- and below-ground utilities, and~~ defensible space vegetation removal for new construction.
 - ~~—~~ d. ~~Fire Safe Plans allow for some retention of oak canopy. To simplify the calculation of oak canopy retention in this zone, the OWMP assumes 80% retention. A site specific analysis of tree removal may be utilized instead of the 80% retention assumption.~~
- 3.4. ~~3.~~ 3.—The proposed oak ~~canopy removal~~woodland impact area is compared with the ~~retention standards provided in the Option A table~~total on-site oak woodland area to determine the appropriate mitigation ratio.
5. ~~4.~~ 4.—If ~~Impacts to individual native oak trees and/or Heritage Trees are determined and the amount~~sum of oak canopy removed is ~~within the retention standards set forth in the Option A table~~impacted trunk diameter (dbh) calculated.
- 4.6. If applicable, the applicant ~~may mitigate~~proposes mitigation for the ~~loss~~impacts to oak woodlands in an oak resources technical report by one of the following mechanisms:
 - ~~—~~ a. ~~Planting on-site at a 1:1 canopy surface area ratio the area of oak canopy removed; or~~
 - ~~—~~ b. ~~Paying into the Oak Woodland Conservation Fund an amount equal to 1:1 replacement for the oak canopy removed; or~~
 - a. ~~—~~ c. ~~Acquire a Deed restriction and/or conservation easement from a willing seller for an area equal to the area (i.e., 1:1 ratio) of removed oak canopy, in an area either~~dedication (on-site), conservation easement acquisition (off-site), acquisition in fee title by a land conservation organization (on-site and/or off-site);

b. In-lieu fee payment at the ratio determined by percentage of on-site oak woodland impact and based on the currently-adopted per-acre fee amount;

c. Replacement planting on-site within the PCA or other an area acceptable subject to a deed restriction or conservation easement;

a.d. Replacement planting off-site within an area subject to a conservation easement or acquisition in fee title by the County or a County-approved land conservation organization; or

b.e. ——— d. ——— A combination of two or more of the above provisions.

~~5. If the amount~~In no case shall replacement planting exceed 50 percent of oak woodland canopy removed exceeds the amount permitted under the Option A retention table, in addition to the provisions of steps 1 through 3, above mitigation requirement.

7. If applicable, the applicant shall deproposes mitigation for impacts to individual native oak trees and/or Heritage Trees in an oak resources technical report by one of the following mechanisms:

a. Replacement planting on-site within an area subject to a deed restriction or conservation easement;

b. Replacement planting off-site within an area subject to a conservation easement or acquisition in fee title by the County or a County-approved land conservation organization;

c. In-lieu fee payment for oak canopy all diameter inches removed (dbh), or 3 times the total diameter inches removed in excess of that permitted under Option A: for Heritage Trees, and based on the currently-adopted per-inch fee amount; or

~~a. Pay into the County's Oak Woodland Conservation Fund the fee amount based on a 2:1 replacement ratio; or~~

~~b. Acquire a conservation easement from a willing seller for two times the area of oak canopy removed in excess of that permitted under the Option A table, in an area either within the PCA or other area acceptable to the County, along with fees for management and monitoring; or~~

d. ——— e. ——— A combination of two or more of the above provisions.

~~5.8. ——— 6. ———~~Payment of applicable fees and in-lieu fees and establishment of any required deed restrictions and/or granting of any required conservation easements and/or land acquisition in fee title shall be required as a condition of approval of all discretionary permits for which these provisions apply, and shall be completed prior to issuance of a grading or building permit, filing of a parcel or final map, or otherwise commencing with the project. The payment of the fee in-lieu fees may be phased to reflect the timing of the tree canopy oak resources removal/impact.

~~6.9. ——— 7. ———~~Payment of applicable in-lieu fees and establishment of any required deed restrictions and/or granting of any required conservation easements and/or land acquisition in fee title, if necessary, shall be completed prior to issuance of a building or grading permit for ministerial projects.

6.0 Definitions

For the purposes of this ORMP, the following terms and phrases shall have the meanings respectively ascribed to them by this section:

Agricultural Conversion: As defined by General Plan Policy 7.1.2.7.

Agricultural Cultivation/Operations: As defined by General Plan Policy 8.2.2.1.

Agricultural Lands: As defined by General Plan Policies 2.2.1.2 and 8.1.1.8, and further, Policy 8.2.2.1.

Arborist: A person certified by the International Society of Arboriculture (ISA) that provides professional advice regarding trees in the County.

CAL FIRE: California Department of Forestry and Fire Protection.

Commercial Firewood Cutting: Fuel wood production where a party cuts firewood for sale or profit.

Conservation Easement: An easement granting a right or interest in real property that is appropriate to retaining land or water areas predominately in their natural, scenic, open, or wooded condition; retaining such areas as suitable habitat for fish, plants, or wildlife; or maintaining existing land uses.

For conservation easement dedication (on-site) or acquisition (off-site) as mitigation for oak woodland impacts, a conservation easement to the satisfaction of County Counsel and the Development Services Director shall be required to ensure the long term maintenance and preservation of oak woodlands. The conservation easement shall provide for the preservation of the designated area in perpetuity and shall include such terms, conditions, and financial endowments for monitoring and management deemed necessary by the County to ensure the long term preservation of the oak woodland within the easement area. The conservation easement shall be in favor of the County or a County-approved conservation organization.

Construction/Disturbance Area: Any area in which movement of earth, alteration in topography, soil compaction, disruption of vegetation, change in soil chemistry, and any other change in the natural character of the land occurs as a result of site preparation, grading, building construction or any other construction activity.

Deed Restriction: Private agreements that restrict the use of the real estate and are listed in the deed. Restrictions travel with the deed, and cannot generally be removed by new owners.

Defensible Space: The area within the perimeter of a parcel, development, neighborhood or community where basic wildland fire protection practices and measures are implemented, in order to defend against encroaching wildfires or provide for people to escape structure fires.

Defensible space is required by any person who owns, leases, controls, operates or maintains a building or structure in or adjoining any mountainous area, forest-covered lands, brush-covered

lands, grass-covered lands or any land that is covered with flammable material and is within the State Responsibility Area. PRC 4291 requires 100 feet of Defensible Space (or to the property line if less than 100 feet) from every building or structure that is used for support or shelter of any use or occupancy.

Diameter at Breast Height (dbh): The measurement of the diameter of a tree in inches, specifically four (4) feet six (6) inches above natural grade on the uphill side of the tree. In the case of trees with multiple trunks, the diameter of all stems (trunks) at breast height shall be combined to calculate the diameter at breast height of the tree.

Fire Safe Plan: Defined in the El Dorado County General Plan (Policy 6.2.2.2) as a plan prepared by a Registered Professional Forester (RPF) and approved by the local Fire Protection District and/or California Department of Forestry and Fire Protection. The plan is prepared to demonstrate that development can be adequately protected from wildland fire hazard in areas of high and very high wildland fire hazard or in areas identified as “urban wildland interface communities within the vicinity of Federal lands that are a high risk for wildfire,” as listed in the Federal Register of August 17, 2001.

Habitat: The physical location or type of environment in which an organism or biological population lives or can be found.

Heritage Trees: Any live native oak tree of the genus *Quercus* (including blue oak (*Quercus douglasii*), valley oak (*Quercus lobata*), California black oak (*Quercus kelloggii*), interior live oak (*Quercus wislizeni*), canyon live oak (*Quercus chrysolepis*), Oregon oak (*Quercus garryana*), oracle oak (*Quercus x morehus*), or hybrids thereof) with a single main trunk measuring 36 inches dbh or greater, or with a multiple trunk with an aggregate trunk diameter measuring 36 inches or greater.

In-lieu Fee: Cash payments that may be paid into the County’s Oak Woodland Conservation Fund by an owner or developer as a substitute for oak woodland conservation easement placement or acquisition or replacement planting. In-lieu fee amounts for individual native oak trees, Heritage Trees, and oak woodlands are presented in this ORMP and may be adjusted by the County over time to reflect changes in land values, labor costs, and nursery stock costs.

Individual Native Oak Trees: Any live native oak tree of the genus *Quercus* (including blue oak (*Quercus douglasii*), valley oak (*Quercus lobata*), California black oak (*Quercus kelloggii*), interior live oak (*Quercus wislizeni*), canyon live oak (*Quercus chrysolepis*), Oregon oak (*Quercus garryana*), oracle oak (*Quercus x morehus*), or hybrids thereof) with a single main trunk measuring greater than 6 but less than 36 inches dbh, or with a multiple trunk with an aggregate trunk diameter measuring greater than 10 but less than 36 inches dbh.

Monitoring Report: A report prepared by a qualified professional documenting site observations and replacement planting survival totals for oak resources mitigation efforts. A Final Monitoring Report is one prepared at the end of the 7-year maintenance and monitoring period that summarizes replacement planting survival totals. A copy of the Final Monitoring Report shall be submitted to the County.

Oak Resources: Collectively, oak woodlands, individual native oak trees, and Heritage Trees.

Oak Resources Impacts: For individual native oak trees and Heritage Trees, removal or actions that cause the death of the tree shall constitute an impact. For oak woodlands, the oak woodland acreage that occurs within project-related disturbance areas shall be considered impacted.

Oak Tree Removal Permit: A permit issued by the County allowing removal of individual native oak trees not located within an oak woodland. An oak resources technical report shall accompany any tree removal permit application submitted to the County. Conditions of approval may be imposed on the permit. If a tree removal permit application is denied, the County shall provide written notification, including the reasons for denial, to the applicant. Oak tree removal permit processing and approval will be conducted concurrently with the environmental review process for discretionary projects or concurrent with other permit review and processing for ministerial projects (e.g., building permits).

Oak Woodlands: An oak stand with a greater than 10 percent canopy cover or that may have historically supported greater than 10 percent canopy cover (California Fish and Game Code Section 1361).

Oak Woodland Removal Permit: A permit issued by the County allowing removal of oak trees that are a component of an oak woodland. An oak resources technical report shall accompany any oak woodland removal permit application submitted to the County. Conditions of approval may be imposed on the permit. If an oak woodland removal permit application is denied, the County shall provide written notification, including the reasons for denial, to the applicant. Oak woodland removal permit processing and approval will be conducted concurrently with the environmental review process for discretionary projects.

Qualified Professional: An arborist certified by the International Society of Arboriculture (ISA), a qualified wildlife biologist, or a registered professional forester (RPF).

Qualified Wildlife Biologist: A professional with a BA or BS or advanced degree in biological sciences or other degree specializing in the natural sciences; professional or academic experience as a biological field investigator, with a background in field sampling design and field methods; taxonomic experience and knowledge of plant and animal ecology; familiarity with plants and animals of the area, including the species of concern; and familiarity with the appropriate county, state, and federal policies and protocols related to special status species and biological surveys.

Registered Professional Forester (RPF): A Registered Professional Forester (RPF) is a person licensed by the State of California to perform professional services that require the application of forestry principles and techniques to the management of forested landscapes. RPFs have an understanding of forest growth, development, and regeneration; soils, geology, and hydrology; wildlife and fisheries biology and other forest resources. RPFs are also trained in fire management and, if involved in timber harvesting operations, have expertise in both forest road design and application of the various methods used to harvest.

Removal: The physical destruction, displacement or removal of a tree, or portions of a tree caused by poisoning, cutting, burning, relocation for transplanting, bulldozing or other mechanical, chemical, or physical means.

Sensitive Habitat: In El Dorado County, this includes the following habitat types: montane riparian, valley-foothill riparian, aspen, valley oak woodland, wet meadow, and vernal pools, as defined in the 2004 El Dorado County General Plan EIR.

Woodland Habitats: Biological communities that range in structure from open savannah to dense forest. In El Dorado County, major woodland habitats include blue oak-foothill pine, blue oak woodland, montane hardwood, montane hardwood-conifer, and valley oak woodland.

1.0 Introduction

This Oak Resources Management Plan (ORMP) updates and revises the Oak Woodland Management Plan adopted by the El Dorado County Board of Supervisors on May 6, 2008 (El Dorado County 2008). It incorporates more recent oak resources mapping data for the County and reflects policy language changes made during the General Plan Biological Policy Review project conducted in 2015. This ORMP incorporates relevant information included in the 2008 Plan, where applicable, and was prepared in coordination with El Dorado County Community Development Agency staff. It also incorporates public input gathered during project-focused hearings and direction given by the El Dorado County Board of Supervisors.

1.1 Purpose

The purpose of this 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 woodland conservation. This ORMP functions as the oak resources component of the County's biological resources mitigation program, identified in General Plan Policy 7.4.2.8. This 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 that are exempt from mitigation requirements. This 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 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 this ORMP. Lastly, this ORMP provides guidance for voluntary oak woodland and oak tree conservation and management efforts by landowners and land managers.

Loss and fragmentation of wildlife habitat, including oaks and oak woodlands, was identified in the 2004 General Plan Environmental Impact Report (EIR) as a significant impact that would result from development under the General Plan. The County identified several mitigation measures which would reduce the severity of these impacts, although not to a less than significant level. These mitigation measures included Policies 7.4.4.4, 7.4.4.5 and 7.4.5.2, and the related Implementation Measure CO-P. During the General Plan Biological Policy Review project conducted in 2015, these policies were edited and consolidated into one single policy (Policy 7.4.4.4). Implementation Measure CO-P was also modified during this process. The revised language in Policy 7.4.4.4 states that mitigation requirements for impacts to oak resources (oak woodlands, individual native oak trees, and Heritage Trees) shall be outlined in this ORMP. Revised Implementation Measure CO-P directs the County to develop and adopt an ORMP that addresses the following:

- Mitigation standards for oak resources impacts;
- Definitions of exempt projects and actions;
- Technical report requirements;
- Oak resources mitigation options and standards;

- Heritage Tree mitigation standards; and
- Oak resources mitigation monitoring and reporting requirements.

An Oak Resources Conservation ordinance that incorporates the standards outlined in this ORMP will be developed in conjunction with adoption of the ORMP.

At the state level, the Oak Woodlands Conservation Act of 2001 recognizes the importance of private land stewardship in conserving oak woodlands. The legislation established the California Oak Woodlands Conservation Program (COWCP), the mission of which is to “conserve the integrity and diversity of oak woodlands across California’s working landscapes through incentives and education.” The COWCP provides technical and financial incentives to private landowners to protect and promote biologically functional oak woodlands.

This ORMP serves 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 (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.

1.2 Goals and Objectives of Plan

The ORMP goals are guided by two General Plan Objectives: Objective 7.4.2 and Objective 7.4.4. General Plan Objective 7.4.2 states: *Identify and Protect Resources*: Identification and protection, where feasible, of critical fish and wildlife habitat including deer winter, summer, and fawning ranges; deer migration routes; stream and river riparian habitat; lake shore habitat; fish spawning areas; wetlands; wildlife corridors; and diverse wildlife habitat.

General Plan Objective 7.4.4 states: *Forest, Oak Woodland, and Tree Resources*: Protect and conserve forest, oak woodland, and tree resources for their wildlife habitat, recreation, water production, domestic livestock grazing, production of a sustainable flow of wood products, and aesthetic values.

The following goals set forth by the General Plan are met in this ORMP:

- Identify standards for determining oak woodland and native oak tree impacts, outline impact mitigation requirements and options, identify technical report submittal requirements, and outline impact mitigation monitoring and reporting requirements;
- Define Heritage Trees and identify impact mitigation requirements;
- Provide mitigation alternatives for impacts to oak resources consistent with state-level requirements;
- Provide a flexible framework for oak resources mitigation via on-site and off-site mechanisms, including an in-lieu fee payment program;
- Develop an oak woodland in-lieu fee and an individual native oak tree-based in-lieu fee;

- Identify Priority Conservation Areas (PCAs) within large expanses of contiguous oak woodland habitat where land or conservation easements may be acquired from willing sellers to offset the effects of increased habitat loss and fragmentation elsewhere;
- Identify minimum standards under which oak woodland conservation may occur outside of identified PCAs;
- Enhance oak woodland conservation by connecting acquisitions from willing sellers with existing open space, including publicly-owned lands that are managed for oak woodland habitat values (e.g., ecological preserves, recreation lands, rangelands, or natural resource areas) consistent with the County’s open space conservation goals (Goal 7.6; Policy 7.6.1.1); and
- Establish a database inventory of interested buyers and willing landowners wishing to participate in oak woodland acquisition and management mitigation options (Policy 7.4.2.8).

1.3 Oak Resources in El Dorado County

1.3.1 Oak Woodlands

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 ten percent canopy cover or that may have historically supported greater than ten percent canopy cover.” For the purposes of this ORMP, the conservation focus is on existing oak woodlands. This ORMP addresses the same study area (below 4,000 feet elevation) and same categories of oak woodlands (California Fire and Resource Assessment Program (FRAP)) as were addressed in the 2008 Oak Woodland Management Plan. These categories of oak woodland were also addressed in the 2004 General Plan using FRAP data from 2002. More recent oak woodland distribution data for El Dorado County available via FRAP (2006) identifies six oak woodland types, which are listed in Table 1 below, along with the acreage of each category found within the ORMP study area. Less than 3,500 acres of valley oak woodland is mapped for El Dorado County, which is designated as a “sensitive habitat” in the General Plan EIR. Finally, while coastal oak woodland is identified in the 2006 FRAP vegetation data set for the ORMP planning area, its presence is unlikely given 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 2006 FRAP data set and the area is likely another oak woodland type.

**Table 1
Acreage of Oak Woodland Types in the ORMP Planning Area (2006 FRAP Data)**

Oak Woodland Type	CWHR Code	Acreage	Percent
Blue oak woodland	BOW	42,616	17.0%
Blue oak-foothill pine	BOP	12,915	5.2%
Coastal oak woodland	COW	13	<0.1%
Montane hardwood	MHW	157,455	62.8%
Montane hardwood-conifer	MHC	34,322	13.7%
Valley oak woodland	VOW	3,434	1.4%
Total:		250,755	100%

A thorough discussion of oak woodland habitat identification and values is presented in Appendix A.

1.3.2 Oak Trees

There are six primary native oak tree species in El Dorado County, including blue oak (*Quercus douglasii*), valley oak (*Quercus lobata*), California black oak (*Quercus kelloggii*), interior live oak (*Quercus wislizeni*), canyon live oak (*Quercus chrysolepis*), and Oregon 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.

1.4 Economic Activity, Land, and Ecosystem Values of Oak Resources

Agriculture and recreation-based tourism are important economic generators in El Dorado County. Oak resources provide value for these activities, including forage value for ranching, soil retention and watershed function benefits that contribute to agricultural activities, and aesthetic value for agri-tourism. Oak resources contribute to soil retention and provide watershed benefits, which have benefits to the agricultural community. Deer and other game species are dependent on oak woodland habitat and provide recreational hunting opportunities, which can generate revenues for ranching land owners through hunting leases. Oak resources contribute to a high-quality visit for recreation tourists, whose activities may include camping, fishing, hiking, bird-watching, and equestrian trail riding.

Studies have also concluded that the presence of oak resources enhances property value by providing shade, wind breaks, sound absorption, land use buffers, erosion control, and aesthetic beauty. Oak resources also contribute to healthy lands and watersheds. They do this by providing habitat for animals, maintaining water quality, and improving soil characteristics. Oak resources have also been identified as a valuable component in greenhouse gas reduction, trapping and storing atmospheric carbon dioxide.

More information regarding economic activities, land values, and ecosystem values are presented in Appendix A.

1.5 State-level Regulations

California Public Resources Code (PRC) Section 21083.4 requires a county to determine (as part of its project review required under the California Environmental Quality Act) 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 woodland 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 seven 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. This ORMP incorporates a range of mitigation alternatives that conform to these requirements.

No state-level regulations exist that require mitigation for impacts to individual oak trees that occur outside of oak woodlands; however, this ORMP identifies mitigation requirements for individual native oaks trees and Heritage Trees to meet the goals and objectives of the General Plan.

2.0 Oak Resources Impact Mitigation Requirements

The following sections outline mitigation requirements for impacts to oak resources. These mitigation requirements meet the goals and objectives of the General Plan and fulfill the requirements of General Plan Policy 7.4.4.4.

2.1 *Applicability and Exemptions*

The oak resources impact mitigation requirements outlined in this section apply to all new development projects or actions that result in impacts to oak woodlands and/or individual native oak trees, including Heritage Trees. Specifically, oak woodland impact mitigation is required for any action requiring discretionary development entitlements or approvals from El Dorado County. Individual native oak tree and Heritage Tree impact mitigation is required for any action requiring a building permit or grading permit issued by El Dorado County and/or any action requiring discretionary development entitlements or approvals from El Dorado County. Activities that do not require one of these two permit types or discretionary approvals do not trigger the impact mitigation requirements included in this ORMP for oak woodlands or for individual native oak trees. However, all impacts to Heritage Trees are subject to the mitigation requirements contained herein. Oak woodland impacts or removal of individual native oak trees (excluding Heritage Trees) associated with the following projects or actions are exempted from the mitigation requirements included in this ORMP:

- Projects or actions occurring on single-family residential lots of 1 acre or less that cannot be further subdivided;
- Actions taken pursuant to an approved Fire Safe Plan for existing structures or in accordance with defensible space maintenance requirements for existing structures in state responsibility areas (SRA) as identified in California Public Resources Code (PRC) Section 4291 (actions associated with Fire Safe Plans or defensible space areas for new or proposed development are not exempt);
- Actions taken to maintain safe operation of existing utility facilities in compliance with state regulations (PRC 4292-4293 and California Public Utilities Commission (CPUC) General Order 95) (actions associated with development of new utility facilities, including transmission or utility lines, are not exempt);
- Road widening and realignment projects necessary to increase capacity, protect public health, and improve safe movement of people and goods in existing public rights-of-way (as well as acquired rights-of-way necessary to complete the project) where the new alignment is dependent on an existing alignment (new proposed roads within the County Circulation Element and internal circulation roads within new or proposed development are not exempt);
- 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, or within a sphere of influence as defined pursuant to California Government Code §56076;
- Agricultural activities conducted for the purposes of producing or processing plant and animal products or the preparation of land for this purpose;

- Agricultural cultivation/operations, whether for personal or commercial purposes;
- Activities occurring on lands in Williamson Act Contracts or under Farmland Security Zone Programs;
- Actions taken during emergency firefighting operations and associated post-fire activities;
- Native oak tree removal when a tree exhibits high failure potential with the potential to injure persons or damage property, as documented in writing by a Certified Arborist or Registered Professional Forester; or
- When a native oak tree, other than a Heritage Tree, is cut down on the owner’s property for the owner’s personal use.

Additionally, this ORMP provides for reductions to oak woodland mitigation for affordable housing projects that are not exempted as defined above. Specifically, development projects that propose a minimum of 10 percent of the dwelling units as income restricted affordable units, as defined by California Health and Safety Code §50052.5, 50053, and 50093, shall be granted a reduction in the amount of oak woodland that is required to be mitigated, as set forth in Table 2. The reduction is to be applied to the mitigation ratio presented in Table 3. This reduction for affordable housing projects applies to oak woodland and individual native oak tree impacts but not to Heritage Tree impacts. In no case shall the mitigation requirement be less than zero.

Table 2
Affordable Housing Mitigation Reduction

Affordable Housing Type (Household Income Level)	Percent Oak Woodland Mitigation Reduction (for portion of project that is income restricted)
Very Low	200%
Lower	100%
Moderate	50%

Example: A project proposes 25% of the units to be affordable in the Lower income category. The oak woodland mitigation ratio may be reduced by 25%. A Moderate income project that provides all units at that income level may reduce the oak woodland mitigation ratio by 50%. A project with 20% Very Low income units would receive a 40% reduction in the oak woodland mitigation ratio.

2.2 Oak Woodland Permits and Mitigation

The policy of the County is to preserve oak woodlands when feasible, through the review of all proposed development activities where woodlands are present on either public or private property, while at the same time recognizing individual rights to develop private property in a reasonable manner. As such, the County shall require mitigation for impacts to oak woodlands. The following sections outline oak woodland permit and mitigation requirements and Figure 1 outlines the permit and mitigation process.

2.2.1 Oak Woodland Removal Permits

An oak woodland removal permit shall be required for a discretionary project to authorize removal of any trees that are a component of an oak woodland. An oak resources technical report shall accompany any oak woodland removal permit application submitted to the County. The County may impose such reasonable conditions of approval as are necessary to protect the health of existing oak woodlands, the public, and the surrounding property. Oak woodland removal permit review will occur concurrently with the environmental review process for discretionary projects. If an oak woodland removal permit application is denied, the County shall provide written notification, including the reasons for denial, to the applicant.

Commercial firewood cutting operations in oak woodlands shall also require an oak woodland removal permit. In reviewing an oak woodland removal permit application for firewood cutting operations, the County shall consider the following:

- Whether the removal of the tree(s) would have a significant negative environmental impact;
- Whether the proposed removal would not result in clear-cutting, but would 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 oak woodland coverage would be.

Any person, firm, or corporation that is not exempt from the standards included in this ORMP who removes oak trees within an oak woodland without first obtaining an oak woodland removal permit shall be subject to the penalties identified in El Dorado County Code Section 13.12.030. Any monies received as fines for illegal oak woodland tree removal shall be deposited in the County’s Oak Woodland Conservation Fund.

2.2.2 Oak Woodland Mitigation

In order to incentivize on-site retention of oak woodlands, mitigation for impacts to oak woodlands shall be based on the ratios presented in Table 3.

**Table 3
Oak Woodland Mitigation Ratios**

Percent of Oak Woodland Impact	Oak Woodland Mitigation Ratio
0-50%	1:1
50.1-75%	1.5:1
75.1-100%	2:1

As presented in Table 3, oak woodland impacts shall be mitigated at a 1:1 ratio where 50 percent or less of on-site oak woodlands are impacted, at a 1.5:1 ratio where 50.1 to 75 percent of on-site

oak woodlands are impacted, and at a 2:1 ratio where greater than 75 percent of on-site oak woodlands are impacted. Non-exempt County road projects shall provide oak woodland mitigation at a ratio of 1:1 regardless of the amount of onsite retention. Mitigation for oak woodland impacts shall be addressed in an oak resources technical report. Options for oak woodland impact mitigation requirements include:

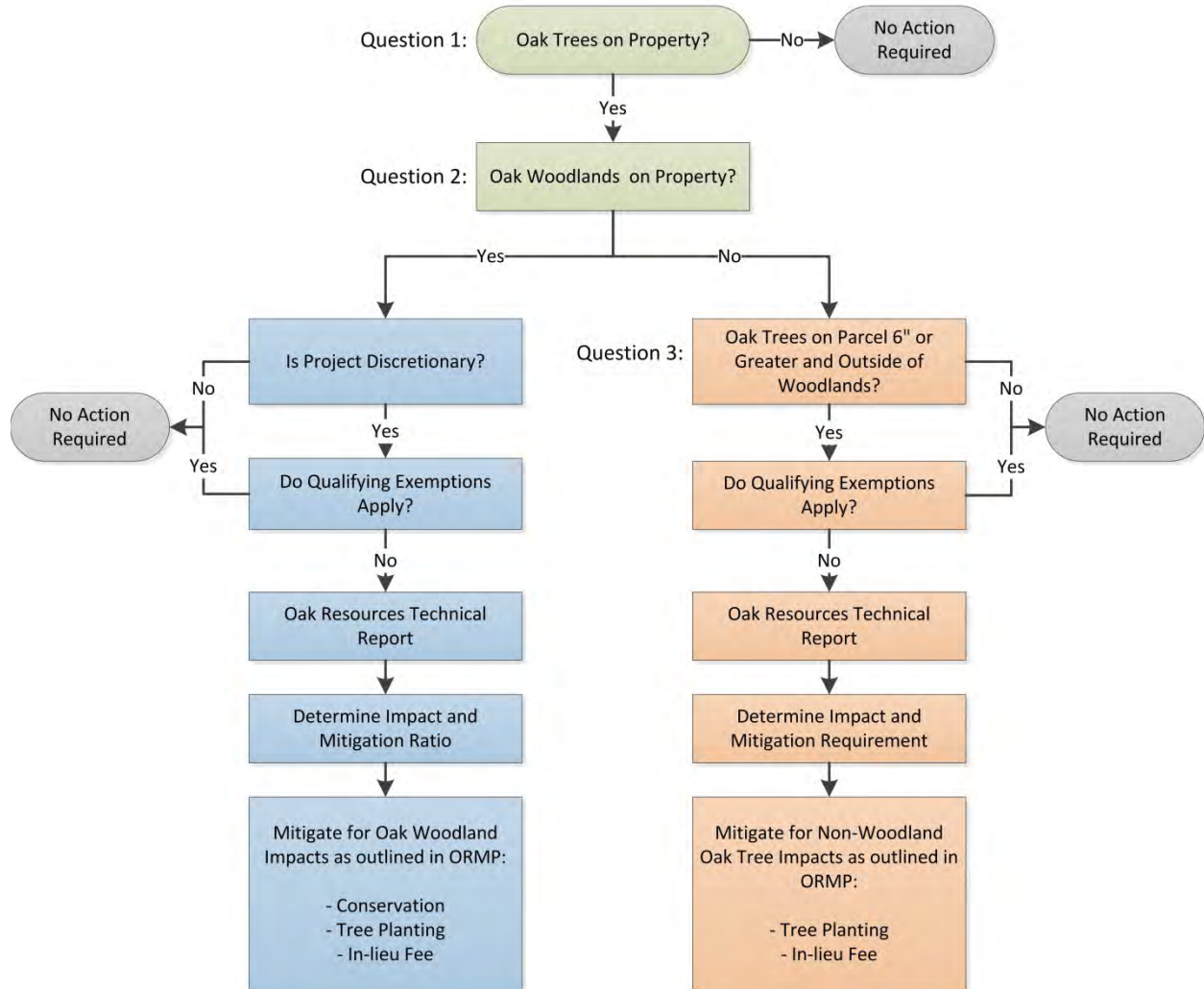
1. Deed restriction (on-site), conservation easement dedication (on-site), and/or conservation easement acquisition (off-site), and/or acquisition in fee title by a land conservation organization (on-site and/or off-site);
2. In-lieu fee payment;
3. Replacement planting on-site within an area subject to a deed restriction or conservation easement;
4. Replacement planting off-site within an area subject to a conservation easement or acquisition in fee title by a land conservation organization; or
5. A combination of numbers 1 through 4 above.

Consistent with California PRC 21083.4, replacement planting shall not account for more than 50 percent of the oak woodland mitigation requirement.

Figure 1. Oak Resources Permitting and Mitigation Process

Oak Resources Process Flow Chart

(Must Answer Questions 1, 2, and 3)



2.3 Individual Native Oak Tree and Heritage Tree Permits and Mitigation

The policy of the County is to preserve native oak trees when 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. As such, the County shall require mitigation for impacts to individual native oak trees and Heritage Trees.

2.3.1 Oak Tree Removal Permits

A tree removal permit shall be required by the County for removal of any individual native oak tree not located within an oak woodland and/or for removal of any Heritage Tree. An oak resources technical report shall accompany any tree removal permit application submitted to the County. 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. Oak tree removal permit review will occur concurrent with the environmental review process for discretionary projects or concurrent with other permit review and processing for ministerial projects (e.g., building permits). If a tree removal permit application is denied, the County shall provide written notification, including the reasons for denial, to the applicant.

Commercial firewood cutting operations shall also require a tree removal permit if not approved under an oak woodland removal permit. In reviewing a tree removal permit application for commercial firewood cutting operations, the County shall consider the following:

- Whether the removal of the tree(s) would have a significant negative environmental impact;
- Whether the tree proposed for removal is a Heritage Tree;
- Whether replanting would be necessary to ensure adequate regeneration;
- Whether the removal would create the potential for soil erosion; and
- Whether any other limitations or conditions should be imposed in accordance with sound tree management practices.

Any person, firm, or corporation that is not exempt from the standards included in this ORMP who removes an oak tree without first obtaining an oak tree removal permit shall be subject to the penalties identified in El Dorado County Code Section 13.12.030. Any monies received as fines for illegal tree removal shall be deposited in the County's Oak Woodland Conservation Fund.

2.3.2 Oak Tree Mitigation

Mitigation for removal of individual native oak trees shall be based on an inch-for-inch replacement standard and shall be quantified and outlined in an oak resources technical report (defined in Section 6.0). Mitigation for removal of Heritage Trees shall be based on an inch-for-inch replacement standard at a 3:1 ratio and shall also be quantified and outlined in an oak resources technical report.

Options for individual native oak tree and Heritage Tree impact mitigation requirements include:

1. Replacement planting on-site within an area subject to a deed restriction or conservation easement;
2. Replacement planting off-site within an area subject to a conservation easement or acquisition in fee title by a land conservation organization;
3. In-lieu fee payment; or
4. A combination of numbers 1 through 3 above.

Mitigation for individual native oak tree and/or Heritage Tree impacts shall be addressed in an oak resources technical report.

2.4 Replacement Planting Guidelines

This section provides guidelines for projects that elect to mitigate via replacement planting. Replacement plantings may be accepted if the replanting area can support oak resources (e.g., proper soil type and general environment). The intent is not to remove existing natural habitats for replacement plantings or to create a continuous canopy that would reduce wildlife value or contribute to increased fire hazard. Replacement plantings are subject to County approval and shall be completed as follows:

- **Oak Woodland Impacts:** For impacts to oak woodlands, planting density shall be based on recommendations made by a qualified professional and presented in an oak resources technical report. Planting density shall be based on the density of impacted oak woodlands, which shall be documented in the oak resources technical report. Replacement trees shall be regularly monitored and maintained and shall survive for a period of 7 years, calculated from the day of planting. Acorns may be used instead of saplings or one gallon trees. If acorns are used, they shall be planted at a 3:1 ratio as determined by the tree replacement formula. The replacement is as follows:

Replacement planting from saplings or one-gallon trees, that are locally sourced, shall follow this formula for ratios:

(Impacted Oak Woodland Area in acres) x (Impacted Oak Woodland Density in trees/acre) = the total number of replacement trees to be replanted

Replacement replanting by acorn shall be from locally-sourced acorns (acorns gathered locally). The replacement ratio by acorn replanting shall be obtained by the following formula

(Impacted Oak Woodland Area in acres) x (Impacted Oak Woodland Density in trees/acre) x (3 acorns per tree) = the total number of acorns to be replanted

This ORMP does not preclude over-planting so that the 90-percent survival rate may be accomplished at the end of the 7-year maintenance and monitoring period. Replacement planting may use a combination of replacement tree sizes (saplings, one-gallon, acorns) if consistency with these ratios is maintained and documented in an oak resources technical report. Monitoring reports shall be submitted to the County at least annually during the 7-year maintenance and monitoring period and documentation of replacement planting

success shall be provided to the County at the end of the 7-year monitoring and maintenance period (final monitoring report).

- Individual Native Oak Tree and Heritage Tree Impacts: For impacts to individual native oak trees that are not otherwise mitigated, replacement planting shall be calculated based upon an inch-for-inch replacement of removed individual native oak trees. The total of replacement trees shall have a combined diameter of the tree(s) removed. Replacement tree species shall be the same proportion as those removed. For the purposes of this requirement, a 15-gallon replacement tree is assumed to represent 1-inch of trunk diameter. Replacement trees shall be planted on-site and monitored and maintained for a period of 7 years, calculated from the day of planting. Documentation of replacement planting success shall be provided to the County at the end of the 7-year monitoring and maintenance period. Any trees that do not survive the 7-year monitoring and maintenance period shall be replaced by the property owner and shall be monitored and maintained for 7 years. Replacement tree sizes may vary and may include acorn plantings, based on documentation of inch-for-inch replacement consistency included in an oak resources technical report. If acorns are used, they shall be planted at a 3:1 ratio (3 acorns for every 1-inch of trunk diameter removed) under the direction of a qualified professional. The replacement planting area shall be suitable for tree planting, shall not conflict with current or planned land uses, and shall be large enough to accommodate replacement plantings at a density no greater than 200 trees per acre. This ORMP does not preclude over-planting so that the minimum survival rate may be accomplished at the end of the 7-year maintenance and monitoring period. Monitoring reports shall be submitted to the County at least annually during the 7-year maintenance and monitoring period and documentation of replacement planting success shall be provided to the County at the end of the 7-year monitoring and maintenance period (final monitoring report).

For impacts to Heritage Trees, replacement planting shall adhere to the standards identified for individual native oak trees; however, replacement totals shall be calculated based upon an inch-for-inch replacement at a 3:1 ratio.

- On-Site Replacement Planting: On-site replacement trees are to be planted to the satisfaction of the Development Services Director. The replacement planting area shall be suitable for tree planting, shall not conflict with current or planned land uses, and shall be large enough to accommodate replacement plantings at a density equal to the density of oak woodlands impacted. A deed restriction or conservation easement to the satisfaction of County Counsel and the Director shall be required to ensure the long term conservation of any on-site replacement trees planted. The Conservation Easement shall be in favor of the County or a County-approved conservation organization. Maintenance and monitoring shall be required for a minimum of 7 years after planting. Any trees that do not survive during this period of time shall be replaced by the property owner and monitored to ensure survival for a period of 7 years from the date of planting.
- Off-Site Replacement Planting: The applicant may be permitted to procure an off-site planting area for replacement planting, preferably in proximity and/or in connection with oak woodlands contiguous to the project site or within or adjacent to a PCA or an Important Biological Corridor as designated in the General Plan or important ecological area as identified in the Initial Inventory and Mapping (June 2010). The replacement planting area shall be suitable for tree planting, shall not conflict with current or planned

land uses, and shall be large enough to accommodate replacement plantings at a density no greater than 200 trees per acre. A conservation easement to the satisfaction of County Counsel and the Development Services Director shall be required to ensure the long term maintenance and preservation of any on-site replacement trees planted. The Conservation Easement shall be in favor of the County or a County approved conservation organization. Maintenance and monitoring shall be required for a minimum of 7 years after planting. Any trees that do not survive during this period of time shall be replaced by the project applicant and monitored to ensure survival for a period of 7 years from the date of planting.

- Replacement Planting Plans: Oak resources replacement planting plans shall be prepared for all replacement planting efforts (on- and off-site) by a qualified professional and may be prepared in conjunction with oak resources technical report. Replacement planting plans shall address the following:
 - Consistency with the accepted native oak tree planting standards, including those outlined in Regenerating Rangeland Oaks in California (McCreary 2009), How to Grow California Oaks (McCreary 1995), How to Collect, Store and Plant Acorns (McCreary undated), and other publications and protocols that may be established by the University of California, Division of Agriculture and Natural Resources.
 - The suitability of the site shall be demonstrated with soil information, aerial photography, or other resources.
 - The density of replanting shall be determined by the qualified professional, based on accepted practice and current research, but shall not exceed 200 trees per acre.
 - The intent of the replacement planting plan is to provide replacement oak trees or acorns with a similar mix of species as those removed, however, the species may vary based on site specific conditions, as determined by the qualified professional.
 - Acorns or saplings for replanting shall be from local sources, when available, to maintain local genetic strains.
 - Replacement planting shall not be located within the 100-foot defensible space zone from an existing or proposed structure unless otherwise consistent with CAL FIRE's defensible space guidelines and fuels reduction requirements mandated under PRC 4291.
 - Replacement plantings shall be maintained in a manner determined by the qualified professional, based on the site-specific conditions, which may include weed control, irrigation, tree protection, pest management, and/or fertilization.
 - The replacement planting plan shall identify the frequency and methods of maintenance and monitoring, as well as contingencies or alternatives if the success criteria are not met annually or at the end of the monitoring term along with a means to ensure compliance with the replacement planting plan. The monitoring term shall be 7 years (PRC 21083.4).
 - Best Management Practices (BMPs) for protection of retained oaks during and after construction (refer to Appendix D).

- An estimate of the total costs associated with implementation of the replacement plan.

2.5 Oak Resources Technical Reports

This section provides guidelines for projects that require preparation of an oak resources technical report. An oak resources technical report is a stand-alone report prepared by a qualified professional that includes the following:

- Identification, location, and quantification of all oak resources on the property:
 - Oak woodlands shall be mapped and assessed in accordance with the CDFG 2009 *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* and subsequent updates, and the *List of Vegetation Alliances and Associations* (CDFG 2010) and subsequent updates;
 - Data collected for individual native oak trees and Heritage Trees shall include: location, species, trunk diameter (dbh), height, canopy radius, and general health and structural condition;
- Identification and quantification of project-related impacts to oak resources;
- Measures identifying how specific trees and woodlands (or retained portions thereof) shall be protected during development and related work;
- Proposed actions to mitigate impacts to oak resources, consistent with the requirements included in this ORMP:
 - For replacement planting, the report shall provide detail regarding the quantity, location, planting density, and acorn/seedling source consistent with the definition of Replacement Planting included in this ORMP;
 - For conservation easement placement/acquisition and/or land acquisition in fee title, the report shall provide documentation of easement placement on-site and/or documentation of easement or land acquisition off-site to the satisfaction of the County;
 - For in-lieu fee payment, the report shall document the quantity of impacts (acreage of oak woodlands and/or total diameter inches of individual native oak trees/Heritage Trees) and the total in-lieu fee payment necessary (presented separately for oak woodlands, individual native oak trees, and Heritage Trees, where applicable);
- Identification of responsible parties;
- Identification of maintenance, monitoring, and reporting requirements;
- Analysis of non-PCA conservation easement areas, where applicable;
- A site map(s) depicting the location of all oak woodlands, individual native oak trees, and Heritage Trees and the location of all proposed project-related improvements (including, but not limited to, the limits of grading, fuel modification/defensible space areas, and

above- and below-ground infrastructure). The site map(s) shall also clearly identify impacted oak resources.

2.6 *Mitigation Program Flexibility*

This ORMP provides for flexibility in meeting oak resources mitigation requirements. An applicant for a development project may comply with the provisions of this ORMP by combining mitigation options, except as specified for replacement planting to mitigate oak woodland impacts. Off-site mitigation may be accomplished through private agreements between the applicant and another private party consistent with the standards included in this ORMP and subject to approval by the County. When dedication of off-site conservation easements outside of PCAs is proposed by a developer, the proposed site shall be prioritized based on the standards set forth in this ORMP (Section 4.0). A developer that dedicates a County-approved conservation easement is not subject to the acquisition component of the in-lieu fee, but is subject to the management component and monitoring component of the fee.

3.0 In-Lieu Fee

The methodology for determining the in-lieu fee for impacts to individual native oak trees and oak woodlands is provided in detail in Appendix B. In general, the in-lieu fee for oak woodlands is based on the costs of acquisition of land and conservation easements, along with management, monitoring, and administrative costs. For individual native oak trees, the in-lieu fee is based on an inch-for-inch replacement approach that accounts for costs associated with purchasing and planting 1-inch of trunk diameter.

3.1 Oak Woodlands

As noted, the in-lieu fee for impacts to oak woodlands is based on the costs of acquisition of land and conservation easements, along with management, monitoring, and administrative costs. A breakdown of costs per acre is provided in Table 4.

**Table 4
Oak Woodland In-Lieu Fee**

Activity	Cost per Acre
Acquisition	<i>To be provided</i>
Management	<i>To be provided</i>
Monitoring	<i>To be provided</i>
Total Cost per Acre	<i>To be provided</i>

The in-lieu fee payment option for impacts to oak woodlands shall be made at the ratio outlined in Table 3, which provides for a variable mitigation ratio depending on the percentage of oak woodland impacted on a project site. The County shall deposit all oak woodland in-lieu fees into its Oak Woodland Conservation Fund, which shall be used to fund the acquisition of land and/or conservation easements from willing sellers as described in Section 4. This fund shall also be used for ongoing monitoring and management activities, including but not limited to fuels treatment, weed control, periodic surveys, and reporting. It is anticipated that conservation easements and mitigation lands would be held by a land conservation organization; therefore, ongoing monitoring and management activities would be conducted by such organizations. Funding to support the negotiation of the purchase price, and oversight of the land transaction is included in the management component of the oak woodland in-lieu fee.

As costs change over time, there will be a need to adjust the fee to closely match future cost increases or decreases. Appendix B details the fee adjustment approach. A report regarding fee adjustments will be included in a report to be submitted to the Planning Commission and Board of Supervisors every other March, as described in Appendix A. The first fee adjustment study would occur at least 12 months after adoption of this ORMP.

3.2 Oak Trees

For individual native oak trees, the in-lieu fee is based on an inch-for-inch replacement approach that accounts for costs associated with purchasing and planting 1-inch of trunk diameter. Specifically, a 15-gallon size native oak tree is assumed to represent one inch of trunk diameter.

The per-inch mitigation fee is then based on the costs to purchase and plant one 15-gallon native oak tree. To determine the per-inch fee, the median price of 15-gallon oak trees was calculated from a survey of eight nurseries in El Dorado County and the surrounding region. This price was then doubled to account for costs associated with planting. Doubling the per-tree cost to account for purchasing and planting a tree (inclusive of labor and materials) is a standard approach in the landscape/habitat restoration industry. Based on this analysis, the per-inch individual native oak tree mitigation fee was calculated to be \$120.00. In the case of Heritage Trees, the per-inch mitigation fee shall be \$360.00 (3:1 ratio).

As described in this ORMP, this per-inch mitigation fee may be paid as mitigation for impacts to individual native oak trees or Heritage Trees. The per-inch fee shall be multiplied by the total number of trunk diameter inches removed (dbh). The County shall use collected per-inch mitigation fees for native oak tree planting projects or may use such funds to acquire oak woodland conservation easements, with documentation that the number of diameter inches meets those for which mitigation fees have been paid.

As costs change over time, there will be a need to adjust the fee to closely match future cost increases or decreases. Appendix B details the fee adjustment approach. A report regarding fee adjustments will be included in a report to be submitted to the Planning Commission and Board of Supervisors every other March, as described in Appendix A. The first fee adjustment study would occur at least 12 months after adoption of this ORMP.

4.0 Priority Conservation Areas

4.1 Identification of Priority Conservation Areas

Figure 1 identifies the areas in which acquisition of conservation easements from willing sellers shall be prioritized using the Oak Woodland Conservation Fund generated by the payment of the in-lieu fees described above. These areas were identified using the FRAP classification of oak woodland habitat in the county. After those areas were mapped, the areas were narrowed down to large expanses consisting of 500 acres or more. Those large expanses were further narrowed to lands where oak woodland habitat would not likely undergo substantial fragmentation and oak woodland conservation would be consistent with the 2004 General Plan land use designations. Areas specifically excluded were lands within Community Regions and Rural Centers and lands designated Low Density Residential. These resulting areas are classified as Priority Conservation Areas (PCAs).

The 500-acre PCAs are generally made up of 40-acre and larger privately owned parcels. A breakdown of parcel sizes within the large expanses is shown in Table 5. A more detailed description of the mapping process and data used to identify PCAs is provided in Appendix A. Figure 2 also shows existing public lands with oak woodlands contiguous to the PCAs.

**Table 5
PCA Parcel Statistics**

Parcel size (Acres)	Number of Parcels	Acres
40-60	170	7,666.3
60.1-120	155	13,176.7
120.1-340	175	31,674.3
340.1+	29	13,535.5
Total	529	66,052.8
	Avg. Size	124.9
	Median Size	84.3

Oak woodland offered as mitigation must be configured in such a manner as to best preserve the integrity of the oak woodland ecosystem. Priority should be given to conserving oak woodland habitat within PCAs, particularly areas that are adjacent to existing woodlands lying west of the National Forest within the Important Biological Corridor overlay, under a conservation easement, on public lands, in open space lands, in riparian corridors, or ecological preserves.

Oak woodlands within the PCAs will be conserved to mitigate for losses of oak woodlands. Prioritization will be given to areas that provide a diversity of oak woodland types. The acreage of oak woodlands conserved shall be based on the quantity of those impacted as a result of new development.

Figure 2. Priority Conservation Areas, Oak Woodlands, and Public Lands in El Dorado County

This ORMP establishes a strategy for conserving oak woodland habitat to offset the effects of increased habitat loss and fragmentation elsewhere in the county. Identification of PCAs and standards for prioritizing conservation of oak woodlands outside of PCAs (Section 4.3) fulfills the oak woodlands portion of the conservation requirements outlined in General Plan Policy 7.4.2.8.

4.2 Management of PCAs

Existing oak woodlands within the PCAs identified as mitigation for project impacts, whether on or off a project site, will be protected from further development through a conservation easement granted to the County or a land conservation group approved by the County or by acquisition in fee title by a land conservation group. Management activities would be conducted by land conservation organizations and may include, but are not limited to, one or more of the following activities, as determined appropriate and/or necessary through monitoring of the sites: inspections, biological surveys, fuels treatment to reduce risk of wildfire and to improve habitat, weed control, database management, and mapping. Agricultural use (i.e., grazing) shall be allowed in conserved oak woodlands as long as the activity occurred prior to the establishment of the conservation easement, the spatial extent of the agricultural use is not expanded on conserved lands, and the agricultural use does not involve active tree harvest or removal (e.g., fuelwood operations, land clearing for crop planting, etc.).

4.3 Conservation Outside of PCAs

The PCAs have been delineated to prioritize the acquisition of oak woodland conservation easements either by the County (using the funds collected in the County's Oak Woodland Conservation Fund) or privately by developers. However, acquisition of oak woodland conservation easements outside of the PCAs may also occur. The following criteria shall be used for selecting potential oak woodlands conservation easements outside of PCAs, consistent with General Plan Policy 7.4.2.8 (D):

- Location within IBCs;
- Location within other important ecological areas as identified in the Initial Inventory and Mapping (June 2010);
- Woodlands with diverse age structure;
- Woodlands with large trees and dense canopies;
- Opportunities for active land management to be used to enhance or restore natural ecosystem processes;
- Potential to support special-status species;
- Connectivity with adjacent protected lands;
- Parcels that achieve multiple agency and community benefits;
- Parcels that are located generally to the west of the Eldorado National Forest; and
- Parcels that would preserve natural wildlife movement corridors such as crossings under major roadways (e.g., U.S. Highway 50 and across canyons).

Conservation easement acquisition as mitigation of oak woodland impacts that occurs outside of PCAs shall occur on minimum contiguous habitat blocks of 5 acres. For transactions where a conservation easement outside of the PCAs is negotiated between a developer and a private seller, an analysis of the proposed oak woodland conservation area shall be performed by a qualified professional to demonstrate that the proposed conservation area is of equal or greater biological value as the oak woodland proposed to be removed. The analysis of conservation areas shall be included as a component of an oak resources technical report.

Should the County elect to purchase oak woodlands conservation easements outside of PCAs using funds from its Oak Woodland Conservation Fund, an analysis of the proposed oak woodland conservation area shall be performed by a qualified professional to determine its suitability in meeting the criteria listed above.

4.4 Conservation Easements

Where the mitigation requirements of this ORMP are met through conservation easements for oak woodlands, whether within or outside of PCAs, the conservation easement shall be granted in perpetuity to the County or a land conservation group approved by the County. The easement shall be provided on a form approved by the County and shall be recorded with the County Clerk/Recorder prior to issuance of a grading or building permit, filing of a parcel or final map, or otherwise commencing with the project.

4.5 Deed Restrictions

Where the mitigation requirements of this ORMP are met through deed restrictions for oak woodlands, whether within or outside of PCAs, the deed restriction shall commit the property to oak woodland conservation use in perpetuity. The deed restriction shall be recorded with the County Clerk/Recorder prior to issuance of a grading or building permit, filing of a parcel or final map, or otherwise commencing with the project.

5.0 Application of ORMP to Development Review Process

Determination of the applicability of the ORMP to a development project shall be made as follows:

1. Planning staff and applicant determine if oak resources exist on the property and if the proposed project would impact any of the oak resources.
2. Oak resources are mapped, quantified, and categorized (oak woodland, individual native oak tree, and/or Heritage Tree) by a qualified professional hired by the applicant and documented in an oak resources technical report.
3. Oak resources impacts are quantified in the oak resources technical report. Oak resources impacts are calculated by identifying all disturbed areas as proposed, including:
 - a. Roads, driveways, and access drives;
 - b. Graded areas for building pads, parking lots, staging areas, and other improvements; and
 - c. Other disturbed areas resulting in oak resources impacts including septic system leach fields, above- and below-ground utilities, and defensible space vegetation removal for new construction.
4. The proposed oak woodland impact area is compared with the total on-site oak woodland area to determine the appropriate mitigation ratio.
5. Impacts to individual native oak trees and/or Heritage Trees are determined and the sum of impacted trunk diameter (dbh) calculated.
6. If applicable, the applicant proposes mitigation for impacts to oak woodlands in an oak resources technical report by one of the following mechanisms:
 - a. Deed restriction and/or conservation easement dedication (on-site), conservation easement acquisition (off-site), acquisition in fee title by a land conservation organization (on-site and/or off-site);
 - b. In-lieu fee payment at the ratio determined by percentage of on-site oak woodland impact and based on the currently-adopted per-acre fee amount;
 - c. Replacement planting on-site within an area subject to a deed restriction or conservation easement;
 - d. Replacement planting off-site within an area subject to a conservation easement or acquisition in fee title by the County or a County-approved land conservation organization; or
 - e. A combination of two or more of the above provisions.

In no case shall replacement planting exceed 50 percent of oak woodland mitigation requirement.

7. If applicable, the applicant proposes mitigation for impacts to individual native oak trees and/or Heritage Trees in an oak resources technical report by one of the following mechanisms:

- a. Replacement planting on-site within an area subject to a deed restriction or conservation easement;
 - b. Replacement planting off-site within an area subject to a conservation easement or acquisition in fee title by the County or a County-approved land conservation organization;
 - c. In-lieu fee payment for all diameter inches removed (dbh), or 3 times the total diameter inches removed for Heritage Trees, and based on the currently-adopted per-inch fee amount; or
 - d. A combination of two or more of the above provisions.
8. Payment of applicable in-lieu fees and establishment of any required deed restrictions and/or granting of any required conservation easements and/or land acquisition in fee title shall be required as a condition of approval of all discretionary permits for which these provisions apply, and shall be completed prior to issuance of a grading or building permit, filing of a parcel or final map, or otherwise commencing with the project. The payment of in-lieu fees may be phased to reflect the timing of the oak resources removal/impact.
 9. Payment of in-lieu fees and establishment of any required deed restrictions and/or granting of any required conservation easements and/or land acquisition in fee title, if necessary, shall be completed prior to issuance of a building or grading permit for ministerial projects.

6.0 Definitions

For the purposes of this ORMP, the following terms and phrases shall have the meanings respectively ascribed to them by this section:

Agricultural Conversion: As defined by General Plan Policy 7.1.2.7.

Agricultural Cultivation/Operations: As defined by General Plan Policy 8.2.2.1.

Agricultural Lands: As defined by General Plan Policies 2.2.1.2 and 8.1.1.8, and further, Policy 8.2.2.1.

Arborist: A person certified by the International Society of Arboriculture (ISA) that provides professional advice regarding trees in the County.

CAL FIRE: California Department of Forestry and Fire Protection.

Commercial Firewood Cutting: Fuel wood production where a party cuts firewood for sale or profit.

Conservation Easement: An easement granting a right or interest in real property that is appropriate to retaining land or water areas predominately in their natural, scenic, open, or wooded condition; retaining such areas as suitable habitat for fish, plants, or wildlife; or maintaining existing land uses.

For conservation easement dedication (on-site) or acquisition (off-site) as mitigation for oak woodland impacts, a conservation easement to the satisfaction of County Counsel and the Development Services Director shall be required to ensure the long term maintenance and preservation of oak woodlands. The conservation easement shall provide for the preservation of the designated area in perpetuity and shall include such terms, conditions, and financial endowments for monitoring and management deemed necessary by the County to ensure the long term preservation of the oak woodland within the easement area. The conservation easement shall be in favor of the County or a County-approved conservation organization.

Construction/Disturbance Area: Any area in which movement of earth, alteration in topography, soil compaction, disruption of vegetation, change in soil chemistry, and any other change in the natural character of the land occurs as a result of site preparation, grading, building construction or any other construction activity.

Deed Restriction: Private agreements that restrict the use of the real estate and are listed in the deed. Restrictions travel with the deed, and cannot generally be removed by new owners.

Defensible Space: The area within the perimeter of a parcel, development, neighborhood or community where basic wildland fire protection practices and measures are implemented, in order to defend against encroaching wildfires or provide for people to escape structure fires.

Defensible space is required by any person who owns, leases, controls, operates or maintains a building or structure in or adjoining any mountainous area, forest-covered lands, brush-covered

lands, grass-covered lands or any land that is covered with flammable material and is within the State Responsibility Area. PRC 4291 requires 100 feet of Defensible Space (or to the property line if less than 100 feet) from every building or structure that is used for support or shelter of any use or occupancy.

Diameter at Breast Height (dbh): The measurement of the diameter of a tree in inches, specifically four (4) feet six (6) inches above natural grade on the uphill side of the tree. In the case of trees with multiple trunks, the diameter of all stems (trunks) at breast height shall be combined to calculate the diameter at breast height of the tree.

Fire Safe Plan: Defined in the El Dorado County General Plan (Policy 6.2.2.2) as a plan prepared by a Registered Professional Forester (RPF) and approved by the local Fire Protection District and/or California Department of Forestry and Fire Protection. The plan is prepared to demonstrate that development can be adequately protected from wildland fire hazard in areas of high and very high wildland fire hazard or in areas identified as “urban wildland interface communities within the vicinity of Federal lands that are a high risk for wildfire,” as listed in the Federal Register of August 17, 2001.

Habitat: The physical location or type of environment in which an organism or biological population lives or can be found.

Heritage Trees: Any live native oak tree of the genus *Quercus* (including blue oak (*Quercus douglasii*), valley oak (*Quercus lobata*), California black oak (*Quercus kelloggii*), interior live oak (*Quercus wislizeni*), canyon live oak (*Quercus chrysolepis*), Oregon oak (*Quercus garryana*), oracle oak (*Quercus x morehus*), or hybrids thereof) with a single main trunk measuring 36 inches dbh or greater, or with a multiple trunk with an aggregate trunk diameter measuring 36 inches or greater.

In-lieu Fee: Cash payments that may be paid into the County’s Oak Woodland Conservation Fund by an owner or developer as a substitute for oak woodland conservation easement placement or acquisition or replacement planting. In-lieu fee amounts for individual native oak trees, Heritage Trees, and oak woodlands are presented in this ORMP and may be adjusted by the County over time to reflect changes in land values, labor costs, and nursery stock costs.

Individual Native Oak Trees: Any live native oak tree of the genus *Quercus* (including blue oak (*Quercus douglasii*), valley oak (*Quercus lobata*), California black oak (*Quercus kelloggii*), interior live oak (*Quercus wislizeni*), canyon live oak (*Quercus chrysolepis*), Oregon oak (*Quercus garryana*), oracle oak (*Quercus x morehus*), or hybrids thereof) with a single main trunk measuring greater than 6 but less than 36 inches dbh, or with a multiple trunk with an aggregate trunk diameter measuring greater than 10 but less than 36 inches dbh.

Monitoring Report: A report prepared by a qualified professional documenting site observations and replacement planting survival totals for oak resources mitigation efforts. A Final Monitoring Report is one prepared at the end of the 7-year maintenance and monitoring period that summarizes replacement planting survival totals. A copy of the Final Monitoring Report shall be submitted to the County.

Oak Resources: Collectively, oak woodlands, individual native oak trees, and Heritage Trees.

Oak Resources Impacts: For individual native oak trees and Heritage Trees, removal or actions that cause the death of the tree shall constitute an impact. For oak woodlands, the oak woodland acreage that occurs within project-related disturbance areas shall be considered impacted.

Oak Tree Removal Permit: A permit issued by the County allowing removal of individual native oak trees not located within an oak woodland. An oak resources technical report shall accompany any tree removal permit application submitted to the County. Conditions of approval may be imposed on the permit. If a tree removal permit application is denied, the County shall provide written notification, including the reasons for denial, to the applicant. Oak tree removal permit processing and approval will be conducted concurrently with the environmental review process for discretionary projects or concurrent with other permit review and processing for ministerial projects (e.g., building permits).

Oak Woodlands: An oak stand with a greater than 10 percent canopy cover or that may have historically supported greater than 10 percent canopy cover (California Fish and Game Code Section 1361).

Oak Woodland Removal Permit: A permit issued by the County allowing removal of oak trees that are a component of an oak woodland. An oak resources technical report shall accompany any oak woodland removal permit application submitted to the County. Conditions of approval may be imposed on the permit. If an oak woodland removal permit application is denied, the County shall provide written notification, including the reasons for denial, to the applicant. Oak woodland removal permit processing and approval will be conducted concurrently with the environmental review process for discretionary projects.

Qualified Professional: An arborist certified by the International Society of Arboriculture (ISA), a qualified wildlife biologist, or a registered professional forester (RPF).

Qualified Wildlife Biologist: A professional with a BA or BS or advanced degree in biological sciences or other degree specializing in the natural sciences; professional or academic experience as a biological field investigator, with a background in field sampling design and field methods; taxonomic experience and knowledge of plant and animal ecology; familiarity with plants and animals of the area, including the species of concern; and familiarity with the appropriate county, state, and federal policies and protocols related to special status species and biological surveys.

Registered Professional Forester (RPF): A Registered Professional Forester (RPF) is a person licensed by the State of California to perform professional services that require the application of forestry principles and techniques to the management of forested landscapes. RPFs have an understanding of forest growth, development, and regeneration; soils, geology, and hydrology; wildlife and fisheries biology and other forest resources. RPFs are also trained in fire management and, if involved in timber harvesting operations, have expertise in both forest road design and application of the various methods used to harvest.

Removal: The physical destruction, displacement or removal of a tree, or portions of a tree caused by poisoning, cutting, burning, relocation for transplanting, bulldozing or other mechanical, chemical, or physical means.

Sensitive Habitat: In El Dorado County, this includes the following habitat types: montane riparian, valley-foothill riparian, aspen, valley oak woodland, wet meadow, and vernal pools, as defined in the 2004 El Dorado County General Plan EIR.

Woodland Habitats: Biological communities that range in structure from open savannah to dense forest. In El Dorado County, major woodland habitats include blue oak-foothill pine, blue oak woodland, montane hardwood, montane hardwood-conifer, and valley oak woodland.

MEMORANDUM

To: Shawna Purvines, Principal Planner
El Dorado County

From: Cathy Spence-Wells, Principal

Subject: Biological Resources Policy Update: In-Lieu Fee Program, Infill Exemption Option Analysis, Response to Comments Received, and Edits to the Draft Policies and Draft Oak Resources Management Plan

Date: June 16, 2015

Attachment(s): Attachment A: Draft Oak Resources In-Lieu Fees Nexus Study
Attachment B: Revised Draft General Plan Biological Resources Policies, clean
Attachment C: Revised Draft General Plan Biological Resources Policies, changes tracked
Attachment D: Revised Draft Oak Resources Management Plan, clean
Attachment E: Revised Draft Oak Resources Management Plan, changes tracked

1.0 INTRODUCTION

The purpose of this memo is to introduce the draft El Dorado County Oak Resources In-Lieu Fees Nexus Study. The in-lieu fee program is a proposed component of the County's oak resource mitigation program outlined in the Draft Oak Resources Management Plan (ORMP). In addition, this memo provides an analysis of a potential infill exemption for impacts to oak resources, summarizes recent edits to the draft biological resources policies and ORMP, and responds to comments raised by stakeholders and the public following review of the first draft of the updated biological resources policies and ORMP (presented to the Board on May 18, 2015).

2.0 OAK RESOURCE IN-LIEU FEE NEXUS STUDY

An Oak Woodland Management Plan (OWMP) was prepared and adopted by the Board of Supervisors (Board) on May 6, 2008. The in-lieu mitigation fee established in the OWMP for impacts to oak woodlands was intended to be consistent with a future conservation fund to be established under the Integrated Natural Resources Management Plan. The fee was established through an economic analysis that was presented to the Board in April 2008. The in-lieu fee was originally established at a rate of \$4,700 per acre of land acquired. Option B of Policy 7.4.4.4

Memorandum

Subject: Biological Resources Policy Update: In-Lieu Fee, Infill Exemption, Edits to Draft Policies and Response to Comments

required mitigation at a 2:1 ratio, thus the required fee payment for each acre of impact would have been \$9,400. This fee was intended to cover the acquisition, management, and ongoing monitoring of conserved oak woodlands.

A lawsuit challenging the County's approval of the OWMP and its implementing ordinance (Oak Tree Replacement Ordinance) was filed. The lawsuit ultimately resulted in the Board's rescission of the OWMP and its implementing ordinance in September 2012. At the same time, the Board directed that an update to biological resources policies in the General Plan be undertaken. As part of that update, a draft ORMP based on Board direction has been prepared, including a mitigation fee program for impacts to oak woodlands and individual oak trees (collectively, oak resources). The draft Oak Resources In-Lieu Fees Nexus Study has been prepared to support the in-lieu fee mitigation program component of the draft ORMP (attached).

The purpose of the Nexus Study is to establish the legal and policy basis to allow the County to impose two in-lieu fees within the County to mitigate impacts to oak resources - one fee for oak woodlands and a separate fee for individual native oak trees, including Heritage Trees, located outside of oak woodlands. The ORMP outlines mitigation options for impacts to oak resources. The in-lieu fee would provide one mitigation option for projects that create an impact on eligible oak resources; other options would include replacement tree planting on- or off-site and conserving off-site, as described in the ORMP.

The El Dorado County Oak Resource In-Lieu Fee Nexus Study determines in-lieu fee rates for mitigation of impacts to eligible oak resources. Payments made under the in-lieu fee program would be deposited in the County's Oak Woodland Conservation Fund. The County would use this fund to acquire oak woodlands (either through fee title or conservation easements) for conservation. It is expected that responsibility of maintenance and monitoring of conserved land would be transferred to a new or existing Land Conservation Organization (LCO) through fee title acquisition and/or conservation easements. Figure 3.2 in the attached draft Nexus Study lists the LCOs in the study and summarizes their responsibilities and the key land holding characteristics (conservation easements, fee title ownership or other ownership).

The Nexus Study proposes a fee designed to pay the full cost of the mitigation for development impacts, including:

- Acquisition
- Initial Management & Monitoring (Initial M&M)
- Long-Term M&M
- Administration

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The study assumes that the fee program will fund M&M in perpetuity. The scale of cost incurred by a series of existing LCOs that actively acquire and manage conservation land is detailed in the study. These costs are utilized to develop key assumptions that shape the oak resource in-lieu fees. Costs associated with acquisition of land or conservation easements are detailed from LCO case studies and through real estate sales transaction data available from El Dorado County (Appendix A). The real estate sales transaction data reflects land values for various locations throughout the County. While several LCO case studies were compiled and reviewed, the in-lieu fee amounts recommended in the draft Nexus Study are based on the costs identified by the American River Conservancy and Placer Land Trust, as the data from these two LCOs is most applicable to El Dorado County. In addition, costs associated with Initial M&M were included from the Placer County Conservation Plan.

The approach utilized to develop the oak resources in-lieu fee includes the following general steps:

1. Define the types of oak resources subject to mitigation and the mitigation ratios for each resource.
2. Review the costs associated with acquiring, and managing and monitoring oak woodland areas in perpetuity; review the costs associated with planting and establishing individual oak trees. Convert costs to a per-acre basis.
3. Establish a per-acre cost for oak woodland areas and a per diameter inch cost for individual oak trees not in oak woodland areas.
4. Summarize the nexus for each fee.
5. Review administrative and implementation processes.

Based on the analysis in the draft El Dorado County Oak Resources In-Lieu Fees Nexus Study, the following in-lieu fees are proposed:

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Oak Woodland Area In-Lieu Fee (per acre)

The oak woodland area in-lieu fee is \$7,954 per acre of impacted oak woodland, as shown in Table 1.

Cost Components	Amount
Acquisition	\$4,400
Initial M&M (Years 1-5)	\$2,300
Endowment (Long-term M&M)	\$875
Subtotal	\$7,575
Administration (5%)	\$379
Total Cost	\$7,954

The draft ORMP proposes mitigation ratios of 1:1 for projects that impact up to 50% of the oak woodlands on-site, 1.5:1 for projects that impact 50.1% to 75% of the oak woodlands on-site, and 2:1 for projects that impact more than 75.1% of the oak woodlands on-site. Based on these ratios, the in-lieu fee ranges from \$7,954 to \$15,908 per acre of impacted oak woodland, depending on the mitigation ratio level (see Figure 4.2 in the attached Nexus Study). This rate funds the cost of land acquisition, Initial M&M (years 1-5), and Long-Term M&M (years 6-perpetuity).

Individual Oak Tree In Lieu Fee (per diameter inch)

The individual oak tree in-lieu fee is \$186 per diameter inch for individual native oak trees and at the proposed 3:1 mitigation ratio for Heritage Oak trees the fee is \$558 per diameter inch. This amount funds the cost of tree acquisition and planting as well as Initial M&M (years 1-7). The Nexus Study presumes that Long-Term M&M costs will be nominal and can be covered by the LCO through its routine property maintenance activities.

3.0 POTENTIAL INFILL EXEMPTION FOR OAK RESOURCES IMPACTS

On February 23, 2015, the Board discussed the potential for exempting infill projects from oak resources impact mitigation requirements. To better understand the effect of this potential policy language modification, an analysis of County parcel data and oak woodland distribution data was conducted. The analysis uses geographic information systems (GIS) tools, County Assessor’s parcel data, and oak woodland distribution data available from CAL FIRE’s Fire and Resource Assessment Program (FRAP 2006) to evaluate the quantities of parcels that may be affected by

an infill exemption. Potential infill parcels are those that are 5 acres and smaller, vacant, and abut at least two developed parcels.

Table 2
Summary of Infill Parcel Sizes with Oak Woodlands in El Dorado County

Parcel Size	Total in County*	Total Infill Parcels in County	Quantity of Infill Parcels with Oak Woodlands (% of Total)
<= 1 acre	50,999	5,873	1,181 (1.3%)
> 1 and <= 2 acres	6,806	1,694	326 (0.4%)
> 2 and <= 5 acres	10,318	3,439	828 (0.9%)
Total:	68,123	11,006	2,335 (3.4%)

*Excludes parcels within the Cities of Placerville and South Lake Tahoe

As shown in Table 2, a total of 11,006 parcels in the County meet the requirements for classification as infill. Of that total, 2,335 parcels have some level of oak woodland coverage, based on the extent of the FRAP oak woodland distribution data. Providing an oak resources exemption for infill parcels could affect up to 2,335 parcels in the County (3.4% of all parcels <=5 acres in the County).

4.0 COMMENTS ON DRAFT BIOLOGICAL RESOURCES POLICIES AND ORMP

Written and verbal comments were received on the Draft Biological Resources Policies and ORMP during or following the Board hearing on May 18, 2015. The discussion below summarizes and responds to the comments received.

Comments Focused on Biological Resources Policies

Integration of Biological Resource Objectives/Policies

Concern was raised that objectives 7.4.1 and 7.4.2 included in the Conservation of Biological Resources section of the Conservation and Open Space Element of the General Plan are not integrated or presented in a clear and consistent fashion and should be integrated into one (or two) that complement each other and are consistent.

To clarify the relationship between objectives 7.4.1 and 7.4.2, Objective 7.4.1 is proposed to be revised to address only the Pine Hill rare plant species rather than all State and Federally recognized rare, threatened, or endangered species.

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Previously Objective 7.4.1 read: “The County shall protect State and Federally recognized rare, threatened, or endangered species and their habitats consistent with Federal and State laws.”

Now Objective 7.4.1 is proposed to read: “The County shall protect Pine Hill rare plant species and their habitats consistent with Federal and State laws.”

As proposed, Objective 7.4.1 would continue to protect the Pine Hill rare plant species and preserve their habitat through the establishment of Ecological Preserves (EP) and an EP overlay area. Policy 7.4.1 also identifies the mitigation ratios for Gabbro soil endemics as required under Chapter 130.71 of the County’s code. None of the proposed policy revisions would affect the applicability of the County code.

With the proposed revision to Objective 7.4.1 to specifically address only the eight Pine Hill endemic plant species, the following two Policies, which originally appeared under Objective 7.4.1, are proposed to be moved to Objective 7.4.2:

Policy 7.4.2.1 The County will coordinate wildlife and vegetation protection programs with appropriate Federal and State agencies.

Policy 7.4.2.2 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.

Objective 7.4.2 continues to include policies that define special-status species and their habitats; identify specific measures to assess potential impacts to special-status species and their habitats; encourage resource preservation, impact avoidance and/or minimization; and establish minimum ratios for compensation/mitigation for project-related impacts to these resources. The consolidation of this information into Objective 7.4.2 and associated policies is designed to provide quick and easy identification of protected species and the requirements surrounding them, including impact assessment and mitigation requirements.

Language has been added to draft Policy 7.4.2.8 to indicate that oak woodlands would be mitigated in accordance with the ORMP (see General Plan Policy 7.4.4.4), and Pine Hill rare plant species and their habitat would be mitigated in accordance with County Code Chapter 130.71 (see General Plan Policy 7.4.1.1).

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Pine Hill Preserve

Comments were received suggesting that the Pine Hill Preserve policies, in-lieu fee, and conservation efforts should be integrated with the overall biological resources mitigation program established in Policy 7.4.2.8.

As discussed previously, Objective 7.4.1 is proposed to be revised to address only the Pine Hill rare plant species rather than all State and Federally recognized rare, threatened, or endangered species. El Dorado County has been working with state and federal resources agencies since the late 1980s to establish the Pine Hill Preserve system. This effort has been and is expected to be separate from the County's efforts to address other biological resource issues. The Pine Hill rare plant species occur within a discrete and unique habitat type - they are dependent on gabbro soils, thus it is appropriate for the County to handle this effort as a distinct component of the County's management of biological resources.

Biological Resources In-Lieu Fee

Another concern raised is whether the County is planning on developing an in-lieu fee for mitigation required under Policy 7.4.2.8 and how this fee program would be incorporated with the oak tree in lieu fee program included in the ORMP.

Policy 7.4.2.8 does not include an in-lieu fee program. Policy 7.4.2.8 indicates that project applicants would be responsible for complying with the minimum mitigation ratios identified. To assist project applicants with finding suitable mitigation sites the County would maintain a list of willing sellers of potential mitigation areas within the County. For wetland mitigation local and regional mitigation banks within or outside of the County would be acceptable provided they are in the same watershed as the impact.

Habitat Mitigation Summary Table

A comment states that the Habitat Mitigation Summary Table may not be entirely consistent with requirements from California Department of Fish and Wildlife (CDFW) and other agencies, noting that CDFW requires mitigation for species but that the Table speaks to habitat.

The comment is correct that CDFW requires mitigation for impacts to species. As stated in draft Policy 7.4.2.8, one of the key goals of the Biological Resource Mitigation Program is to conserve habitats that support special status species. The draft policy defines the categories of species that are considered special-status, and the mitigation ratios in the Summary Table identify the mitigation requirements for projects that impact

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habitat that supports or may support special-status species. Preservation and creation of vegetation communities at the minimum ratios defined in the Summary Table would ensure the current range and distribution of special-status species within the County are maintained. Each individual project would still be required to comply with state and federal laws, such as the Endangered Species Act, and would need to obtain take permits for any actions that would result in take of an endangered or threatened species. Additionally, through the state and federal permitting processes, resource agencies may require additional mitigation beyond the County's requirements for individual projects that impact jurisdictional waters and wetlands and/or special-status species.

Another comment notes that the proposed mitigation ratios in the Summary Table overlap with federal and state regulation and asks the County to consider amending the policies and mitigation ratios to allow lesser ratios if approved by federal or state resource agencies.

The second comment is also correct, that the habitat mitigation requirements proposed in draft Policy 7.4.2.8 address resources that are also regulated by state and federal agencies. However it is important for El Dorado County to define the minimum ratios acceptable to the County to achieve the goals of the Biological Resource Mitigation Program, including streamlining the environmental review process, as discussed in the following section. State and federal resource agencies have indicated it is preferable for the local jurisdiction to define minimum mitigation ratios. As an example, having the minimum mitigation ratios established facilitates CDFW in reviewing and approving Streambed Alteration Agreements.

California Environmental Quality Act (CEQA) Streamlining

A comment indicates that it may not be feasible to streamline future environmental review due to the lack of integration among the biological resources policies and required mitigation ratios.

The intent is that with the biological resources mitigation program, the County would have established an approach to ensure adequate mitigation of cumulative impacts from development under the General Plan. The project-specific mitigation requirements would be based on the land cover types (biological resources) at the project site, the amount of impact to each land cover type, and the mitigation ratios established in the General Plan. The Environmental Impact Report (EIR) analysis for the biological resources policy update would provide support for the project-specific mitigation requirements by documenting whether these mitigation ratios are sufficient to mitigate the cumulative impacts in the region.

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Individual projects would still be subject to CEQA, as well as other state and federal regulations. Project-specific impacts would be evaluated as usual by the County and state and federal resource agencies as applicable. For the analysis of the project's contribution to cumulative impacts, to the extent that the project is consistent with the development assumptions made in the General Plan and General Plan Amendment EIRs, the project-specific CEQA analysis could rely on the analysis from those prior EIRs. This could be done through a number of CEQA mechanisms, including tiering, preparation of subsequent and supplemental analyses and incorporation by reference.

Regarding ratios, the resource ratios were designed to offset impacts to special-status species habitat within the County and to be consistent with the types of mitigation used by surrounding jurisdictions. Under the proposed policy updates, the General Plan would establish minimum ratios and during the CEQA review process for individual projects, project-specific issues would be evaluated and higher ratios can be required, as appropriate. Implementation of mitigation in compliance with the ratios is intended to reduce impacts to a less-than-significant level for the purposes of CEQA.

Conservation Management Program

The comment questions how land set aside for conservation would be managed and protected and states that the cost of conservation should need to be factored into the in-lieu fee program for oak woodlands and other biological resources. The comment also requests that the County establish a system to track and monitor the success of conservation areas.

As noted in the draft ORMP, conservation easements shall be granted in perpetuity to the County or a land conservation group approved by the County. The in-lieu fee includes costs associated with acquisition, managing and monitoring the land. It is assumed a non-profit LCO (or the County) would be the entity actively managing and monitoring any conservation lands in perpetuity. Lands directly acquired by a LCO would also be managed by the organization. However, very little, if any, active management would be needed. The goal would be to ensure the land and the protected resources present are not disturbed.

With respect to conservation of lands in accordance with Policy 7.4.2.8 that are not required by the ORMP, it would be up to the non-profit LCO (or the County) holding the conservation easement to determine the level of active management and monitoring required and obtain an endowment from the project applicant as appropriate. For conservation lands set aside via a deed restriction rather than a conservation easement, it

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is not anticipated that active management and monitoring would occur but rather that the land and the protected resources would not be disturbed.

A tracking system to monitor the success of the conservation areas would be addressed in the General Plan Biological Resource Policies Update EIR and the effectiveness of the tracking program will be described. This will include a statement of how planners at the counter will know if a potential project site is encumbered by a conservation easement and/or deed restriction related to biological resources. Standardized language for conservation easements and deed restrictions and some mapping of the conserved lands would be appropriate.

Any lands outside Priority Conservation Areas (PCAs) and Important Biological Corridors (IBCs) would be selected based on the criteria described in Policy 7.4.2.8(D) (location within other important ecological areas, diversity of age structure of woodland, forest and shrub communities, presence of or potential to support special-status species, connectivity with adjacent protected lands, etc.).

Comments on Important Biological Corridors

The comment notes it is the commenter's understanding that the IBC overlay included in the 2004 General Plan has not been updated.

The current IBC overlay includes 64,600 acres, linking 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. 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). In general, the IBCs are consistent with these two studies and implementation of the General Plan would not conflict with these studies.

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. Updated Policy 7.4.2.8 recommends that mitigation occur within the County on a minimum contiguous habitat block of 5 acres. Therefore, we are not proposing that the IBC overlay be updated at this time. This approach is consistent with Board direction on Decision Point 8 discussed at the March 30, 2015 meeting. Rather as outlined in Policy 7.4.2.8, each

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project will evaluate impacts to wildlife movement and provide feasible mitigation. Where a project occurs within the IBC overlay, the project may not result in a net loss of wildlife movement functions and values.

Willing Sellers Program

A general concern was also raised recommending including an implementation measure that requires active engagement by the County and promotion of mitigation programs to willing sellers.

Project proponents will need to find willing sellers, as will the County when implementing the in-lieu fee program. If the passive approach of maintaining a willing sellers list does not yield sufficient sellers, the county can reevaluate the need for a more active approach to identifying mitigation opportunities.

Comments Focused on the ORMP

This section presents and addresses comments received regarding the Draft ORMP (May 2015).

Exemptions

Comments were received regarding the 1-acre exemption for impacts to oak woodlands. One comment requested a consideration to allow a “disturbance area” exemption for oak woodlands measuring 1-acre and larger, rather than an exemption for parcels measuring 1 acre or less in size that cannot be further subdivided. Another comment expressed concern that the current exemption (for parcels measuring 1-acre or less that cannot be further subdivided) may have a large effect on oak woodlands and questioned if the exemption would apply only to current parcels that meet this size or to smaller parcels created in the future.

An analysis of parcel sizes was conducted for the Board’s consideration of Decision Point 4, as presented in Table 3 below, which was included in the memorandum for the Board hearing on February 23, 2015.

Table 3
Summary of Parcel Sizes with Oak Woodlands in El Dorado County

Parcel Size	Total in County*	Quantity with Oak Woodlands (% of Total)	Quantity with Oak Woodlands and Not Classified as Developed (% of Total)
<= 1 acre	50,999	8,550 (9.7%)	1,938 (2.2%)
> 1 and <= 2 acres	6,806	4,363 (4.9%)	771 (0.9%)

Table 3
Summary of Parcel Sizes with Oak Woodlands in El Dorado County

Parcel Size	Total in County*	Quantity with Oak Woodlands (% of Total)	Quantity with Oak Woodlands and Not Classified as Developed (% of Total)
> 2 and <= 5 acres	10,318	7,919 (8.9%)	1,523 (1.7%)
> 5 and <= 10 acres	8,798	7,488 (8.5%)	1,685 (1.9%)
> 10 and <= 40 acres	7,267	5,990 (6.8%)	2,327 (2.6%)
> 40 acres	3,970	2,437 (2.8%)	1,962 (2.2%)
Total:	88,158	36,747 (41.7%)	10,206 (11.6%)

*Excludes parcels within the Cities of Placerville and South Lake Tahoe

As shown in Table 3, a total of 50,999 parcels in the County are less than or equal to 1 acre, excluding those in the Cities of Placerville and South Lake Tahoe. Of that total, 8,550 parcels have some level of oak woodland coverage, based on the extent of the FRAP oak woodland distribution data. Of the parcels that are equal to or less than 1 acre with some level of oak woodland coverage, 1,938 are not classified as developed by the County Assessor. Providing an oak resources exemption for parcels less than or equal to 1 acre could affect between 1,938 and 8,550 parcels in the County (2.2% to 9.7% of all 1 acre and smaller parcels in the County).

The analysis of impacts associated with this exemption will be presented in the General Plan Biological Resource Policies Update EIR. The exemption as currently written is intended to apply to only current parcels and future subdivisions would be subject to General Plan policies and ORMP requirements. Language in the ORMP will be modified to clarify this exemption’s applicability to current parcels only.

Also shown in Table 3, there are 36,747 parcels in the County with oak woodlands. This includes parcels classified as both developed and not developed. Although it is not expected that all parcels with oak woodlands would contain an acre of oak woodland or would disturb an acre of woodland, providing a 1-acre “disturbance area” exemption could affect up to 36,747 parcels in the County (41.7% of all parcels in the County). Quantifying a one-acre oak woodland disturbance area exemption in the General Plan Biological Resources Policies Update EIR analysis would be difficult and could overestimate the impact and required mitigation.

A comment was also received regarding the exemption for road widening and suggested that this exemption should not be in place as road widening is driven by development, which is subject to oak woodland mitigation. Additionally, this comment suggested that potential impacts to valley

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oak woodlands, a sensitive resource in the County, could be disproportionate from road widening projects.

During its February 23, 2015 hearing in considering Decision Point 5, the Board elected to keep the existing exemption for road widening where the new alignment is dependent on the existing alignment to facilitate safe travel. The ORMP does not exempt any new road projects (private or those in the County's Capital Improvement Plan (CIP)). Future widening as currently planned under the CIP is fairly limited and the extent of likely impacts under this exemption will be analyzed in the General Plan Biological Resource Policies Update EIR. Additionally, using FRAP oak woodland data, the potential impact to valley oak woodlands resulting from County road widening projects will be analyzed in the General Plan Biological Resource Policies Update EIR.

Priority Conservation Areas

Comments were received emphasizing the importance of oak woodland conservation within the US 50 corridor area, Community Regions, and Rural Centers. One comment states that this importance should be more clearly acknowledged in the ORMP while recognizing that the inclusion of oak woodland conservation opportunities in the US 50 corridor area is an improvement over the previous plan. The comment also states that there is value in identifying one or more Priority Conservation Areas in the US 50 corridor area.

At its February 23, 2015 hearing, the Board elected to retain the existing PCAs (Decision Point 6) and to add language to the ORMP and General Plan Policy 7.4.2.8 outlining standards for conservation outside of PCAs. Conservation outside of PCAs may include areas within Community Regions, Rural Centers, and the US 50 corridor area. In addition, IBCs occur within these areas and provide opportunities for habitat conservation.

A comment states that cattle grazing should not be allowed in oak woodland conservation areas, stating its detrimental effects on oak woodlands in the long-term.

Cattle grazing in conserved oak woodland areas is consistent with General Plan Objective 7.4.4:

“Protect and conserve forest, oak woodland, and tree resources for their wildlife habitat, recreation, water production, domestic livestock grazing, production of a sustainable flow of wood products, and aesthetic values.”

Current research notes potential positive effects of grazing in controlling competing non-native grasses and forbs and its potential negative effects of seedling trampling and soil compaction. Additionally, the timing and intensity of grazing are primary contributors to its effect on oak woodland regeneration. The Draft ORMP allows grazing in conservation

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easements if grazing occurred prior to establishment of the easement. This will be evaluated further in the General Plan Biological Resources Policy Update EIR.

Retention Standards

A comment was received that opposes allowing 100-percent removal of oak woodlands from a project site, stating that retention is necessary to avoid fragmentation, and asks which other jurisdictions endorse 100-percent removal of oak woodlands.

The ORMP outlines mitigation requirements for impacts to oak woodlands and provides an incentive for retention by increasing the required mitigation ratios with increasing impact levels. At its February 23, 2015 hearing, the Board gave direction to replace the retention standards included in General Plan Policy 7.4.4.4 (Option A) with this incentive-based approach (Decision Point 4). As discussed at the February 23 hearing, the retention standards in Policy 7.4.4.4 do not require any level of retention if an in-lieu fee option is used. Therefore, the allowable level of impact for oak woodlands remains unchanged in the current draft of the ORMP. Additionally, the County's 2004 General Plan and the state-level oak regulations (Kuehl Bill) do not require any amount of retention. Retaining small amounts of onsite oak woodlands does not necessarily prevent fragmentation. The development of PCAs for conservation of oak woodlands was identified as a means to offset and mitigate the loss or fragmentation of oak woodlands in other areas as a result of implementation of the 2004 General Plan.

Individual Native Oak Trees

A comment states that oak trees measuring less than 6-inches in diameter should be protected for their value in woodland regeneration.

The contribution of oak trees less than 6-inches in diameter to oak woodland value is addressed under the requirements to mitigate for impacts to oak woodlands. Individual native oak trees less than 6-inches in diameter that occur outside of oak woodlands are not protected under the individual tree standards included in the ORMP.

Heritage Trees

A comment was received suggesting that the Heritage Tree definition be revised to include oak trees measuring 24-inches and greater and cites Placer and Tuolumne Counties as examples.

The 36-inch threshold for defining heritage oak trees in the Draft ORMP was derived from General Plan Policy 7.4.5.2, which afforded greater protection to oaks measuring 36 inches and greater. Definitions of heritage trees vary by county throughout the state, for those that have provided diameter measurement threshold in their definitions. The variations in trunk diameter thresholds range from 19 inches (Sacramento County), to 24

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inches (Placer and Tuolumne Counties), to 36 inches (Los Angeles County), up to 48 inches (San Mateo County). In addition, some counties provide no specific definition other than designation of specific trees by the Board of Supervisors (e.g., Nevada and Sonoma Counties) and some counties provide no definition for heritage trees (e.g., Calaveras, Amador, and Butte Counties). Lowering the 36-inch threshold for the Heritage Tree definition in El Dorado County would increase the number of trees required to mitigate at a 3:1 ratio potentially resulting in greater tree replanting or in-lieu fee mitigation payments.

Replacement Planting

A comment was received that suggests that acorn planting should not be a mitigation option. The comment acknowledges that it is an accepted practice but expresses concern that the replacement value is decades away, and requests an example in El Dorado County where acorn mitigation has been effective.

The Draft ORMP outlines mitigation options, one of which is replacement planting, which is also consistent with state-level oak regulations (Kuehl Bill). Acorn planting is an accepted and often preferable practice. The provisions in the ORMP require planting at a 3:1 ratio if acorns are used in replacement planting mitigation efforts to account for potential mortality or predation of acorns. As discussed by McCreary¹, the conditions of a planting site can dictate the suitability of using acorns and growth rates of acorn plantings may equal or surpass those for container plantings. The ORMP provides this option so that a replacement planting effort can be developed for a project that considers the specific suitability of the planting site. As with all planting programs under the proposed draft ORMP, acorn plantings would be required to meet the 7 year survival standard, consistent with the requirements of the Kuehl Bill.

A comment suggests that monitoring of oak replacement plantings needs to be realistically planned, stating that the County does not have adequate resources to ensure it is done.

The Draft ORMP requires that monitoring and reporting for oak replacement planting mitigation efforts are conducted by the project applicant, land owner, or conservation easement holder. The County will not bear responsibility for monitoring oak replacement planting sites. Oak Resources Technical Reports, as defined in the ORMP, will address the project-specific monitoring and reporting responsibilities of the developer/applicant. It is expected that annual monitoring reports would be submitted to the County for review

¹ McCreary, D. 2009. Regenerating Rangeland Oaks in California. University of California Agriculture and Natural Resources, Publication 21601e.

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and acceptance. The General Plan Biological Resource Policies Update EIR will describe how the monitoring and reporting process would work and how it would be implemented.

Oak Resources Mitigation

A comment states that current maps of existing oak woodlands are needed, requesting a comparison of current oak woodland maps with 20-year-old maps to discern removal and mitigation trends.

Figure 2, which presents PCAs, oak woodlands, and public lands in El Dorado County, has been provided in the Revised Draft ORMP. A summary of oak woodland coverage changes in El Dorado County will be presented in the General Plan Biological Resource Policies Update EIR.

A comment states that ministerial development should not be exempt from oak resources mitigation.

As presented in the Draft ORMP, ministerial projects are not exempt from mitigation requirements for impacts to individual native oak trees (including Heritage Trees). Oak woodland impact mitigation would be exempt for non-discretionary projects (ministerial). An analysis of the environmental effect of this exemption will be included in the General Plan Biological Resource Policies Update EIR.

5.0 EDITS TO THE DRAFT BIOLOGICAL RESOURCES POLICIES AND ORMP

Following the Board hearing on May 18, 2015, review of comments provided on the draft policies and ORMP, and subsequent meetings and coordination with County staff, recommended revisions to the Draft Biological Resources Policies and ORMP were made, as summarized below.

Draft Biological Resources Policies

Edits to the Draft Biological Resource Policies are presented in Table 4.

**Table 4
Summary of Changes to the Draft Biological Resources Policies**

General Plan Policy/Objective/ Implementation Measure	Changes Made
Policy 7.4.1.6	<ul style="list-style-type: none">• Text revised and moved to Policy 7.4.1.1.
Policy 7.4.1.7	<ul style="list-style-type: none">• Text moved to Policy 7.4.2.2.
Policy 7.4.2.8	<ul style="list-style-type: none">• Text was added to clarify that the Habitat Mitigation Summary Table in Section D does not apply to Pine Hill rare plant species habitat

Draft Oak Resources Management Plan

Edits to the Draft ORMP were focused on language clarification and corrections for consistency within the document. Additionally, Figure 2, a map of oak woodlands in the County, and the oak resources in-lieu fee amounts have been added to the revised Draft ORMP. A summary of changes is presented in Table 5.

**Table 5
Summary of Changes to the Draft Oak Resources Management Plan**

ORMP Section	Changes Made
2.1 (Applicability and Exemptions)	<ul style="list-style-type: none"> • Clarification added to agricultural exemption to exclude commercial firewood operations, consistent with permitting requirements included in ORMP • Exemption added for tree removal associated with an approved Timber Harvest Plan (THP)
2.2.1 (Oak Woodland Removal Permits)	<ul style="list-style-type: none"> • Clarification regarding consistency findings necessary prior to issuing an oak woodland removal permit • Clarification of fines required for non-permitted oak woodland impacts
2.2.2 (Oak Woodland Mitigation)	<ul style="list-style-type: none"> • Mitigation requirements clarified in respect to need for placing a deed restriction/conservation easement over retained woodlands and conservation easement acquisition off-site.
2.3.1 (Oak Tree Removal Permits)	<ul style="list-style-type: none"> • Clarification regarding consistency findings necessary prior to issuing an oak tree removal permit • Clarification of fines required for non-permitted oak tree impacts
2.4 (Replacement Planting Guidelines)	<ul style="list-style-type: none"> • 90-percent survival threshold edited for consistency with planting approach to meet impacted woodland density. • Clarification of replacement tree sizes • Clarification of responsible party for monitoring/maintenance of replacement trees
3.1 (Oak Woodlands)	<ul style="list-style-type: none"> • Oak woodland in-lieu fee information updated based on report from New Economics.
3.2 (Oak Trees)	<ul style="list-style-type: none"> • Individual native oak tree in-lieu fee information updated based on report from New Economics. • Clarification of fee deposition into County Oak Woodland Conservation Fund
4.1 (Identification of Priority Conservation Areas)	<ul style="list-style-type: none"> • Added Figure 2: Priority Conservation Areas, Oak Woodlands, and Public Lands in El Dorado County • Clarification of option to purchase land or conservation easements
4.3 (Conservation Outside of PCAs)	<ul style="list-style-type: none"> • Clarification of option to purchase land or conservation easements • Clarification of definition of 'contiguous habitat blocks'
5.0 (Application of ORMP to Development Review Process)	<ul style="list-style-type: none"> • Clarification of fee payment requirements for phasing
6.0 (Definitions)	<ul style="list-style-type: none"> • Revised definition of 'Removal' to 'Impact' and clarified definition • Added definition of 'Replacement Tree'

Attachment A:

Draft Oak Resource In-Lieu Fees Nexus Study

El Dorado County Oak Resources In-Lieu Fees Nexus Study

PUBLIC REVIEW DRAFT

Prepared by New Economics & Advisory

June 16, 2015

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List of Acronyms

ARC	American River Conservancy
CAL FIRE	California Department of Forestry and Fire Protection
CE	Conservation Easement
CEQA	California Environmental Quality Act
CIP	Capital Improvement Project
CPUC	California Public Utilities Commission
FRAP	Fire and Resource Assessment Program
GIS	Geographic Information Systems
HRS	Habitat Restoration Sciences, Inc.
Initial M&M	Initial Management and Monitoring
INRMP	Integrated Natural Resources Management Plan
IOT	Individual Oak Tree
LCO	Land Conservation Organization
Long-Term M&M	Long-Term Management and Monitoring
LOS	Level of Service
NACUBO	National Association of College and University Business Officers
ORMP	Oak Resources Management Plan
ORTR	Oak Resources Technical Report
OWA	Oak Woodland Area
OWMP	Oak Woodland Management Plan
PCA	Priority Conservation Area
PCCP	Placer County Conservation Plan
PLT	Placer Land Trust
PRC	California Public Resources Code
SACOG	Sacramento Area Council of Governments
SF	Sempervirens Fund
SFC	Sierra Foothill Conservancy
SRAS	State Responsibility Areas
SRL	Save the Redwoods League
STF	Sacramento Tree Foundation
SVC	Sacramento Valley Conservancy
TAZ	Transportation Area Zones

1. Introduction

This Oak Resources Nexus Study (Nexus Study) has been prepared for El Dorado County (County) pursuant to the “Mitigation Fee Act” found in California Government Code 66000. The purpose of this Nexus Study is to establish the legal and policy basis to allow the County to offer two in-lieu fee options for new development within the County to mitigate impacts to these Oak Resources: Oak Woodland Areas (OWAs) and Individual Oak Trees (IOTs), (which include Heritage Oak Trees and Native Oak Trees). The In-Lieu Fees would provide one mitigation option for projects that impact Oak Resources; other mitigation options include replacement tree planting on- or off-site or conserving existing oak woodlands off-site, as described in the draft 2015 Oak Resources Management Plan (ORMP).

Oak Resources Conservation Strategy Background

The County’s 2004 General Plan Environmental Impact Report identified substantial fragmentation and/or elimination of Oak Resources by residential and commercial development that would occur as a result of new development in El Dorado County¹. The projected growth in the County increases the potential for significant oak woodland loss.

In 2008 the County prepared an Oak Woodland Management Plan (OWMP), which outlined the County’s strategy for conservation of oak woodland areas. The in-lieu oak woodland mitigation fee was intended to be consistent with a future conservation fund to be established under the Integrated Natural Resources Management Plan (INRMP). The fee was established through an economic analysis that was presented to the Board in April 2008. However, a lawsuit challenging the County’s approval of the OWMP and its implementing ordinance (Oak Tree Replacement Ordinance) ultimately resulted in the Board’s rescission of the OWMP and its implementing ordinance in September 2012. At the same time, the County decided to update biological resources policies in the General Plan. As part of that update, a draft ORMP based on Board direction has been prepared, including a mitigation fee program for impacts to oak woodlands and individual oak trees. This 2015 Nexus Study reflects the parameters described in the draft ORMP prepared by Dudek in May 2015 and has been prepared to support the in-lieu fee mitigation program component of the draft ORMP.

The draft ORMP also defines mitigation requirements and options for impacts to Oak Resources, which include OWAs and IOTs. IOTs include individual Native Oak Trees and Heritage Trees.

¹ As cited in the draft Oak Resources Management Plan prepared by Dudek, May 2015, page 1.

Overview of 2008 In-Lieu Mitigation Fee

An in-lieu mitigation fee was originally developed concurrently with the 2008 OWMP. Calculation of the 2008 in-lieu fee utilized a Level of Service (LOS) methodology, as opposed to a Capital Improvement Program (CIP) methodology, as the basis for its technical approach. While a CIP approach relies on a fixed set of improvements—in this case a known number of acres that can be acquired for a known cost—the LOS approach relies on a service target or standard—in this case a mitigation ratio and mitigation cost per acre. The 2008 analysis relied on the OWMP standard of conserving existing oak canopy of equal or greater biological value as those lost at a conservation mitigation ratio of 2:1².

The 2008 analysis developed a per-acre cost for three broad oak woodland conservation activities: acquisition, management, and monitoring. The study estimated cost assumptions for each activity based on a variety of sources, and then applied these assumptions to a hypothetical conservation easement of approximately 125 acres in size. This parcel size was selected because it reflected the average parcel size within Priority Conservation Areas (PCAs)³.

The OWMP in-lieu fee study established a total cost of \$4,700 per acre of canopy impact to fund the acquisition, management, and ongoing monitoring of oak woodland. Based on the 2:1 mitigation ratio, the 2008 OWMP In-Lieu Fee was established at a rate of \$9,400 per acre. **Figure 1.1** provides a summary of the cost and fee per acre.

² El Dorado County Oak Woodland Management Plan, April 2, 2008, page 9.

³ Areas where oak woodland conservation efforts may be focused. The draft ORMP contains a map showing the location of PCAs.

1.1 2008 OWMP In-Lieu Mitigation Fee Rate 2008\$

Activity	Amount Per Acre
Cost Components	
Acquisition [1]	\$2,300
Management [2]	\$1,200
Monitoring [3]	\$1,200
Total Cost Per Acre	\$4,700
Mitigation Ratio For In-Lieu Fee	2:1
Proposed Fee per Acre	\$9,400

Prepared by New Economics & Advisory, May 2015.

[1] Conservation easement on rural land acquisition of 125 acres, which is the average parcel size within the PCAs. Acquisition costs include the easement land value (approximately \$1,800, or 40% discount value) and conveyance costs.

[2] Includes biological survey/ baseline documentation, weed control, and fuels treatment.

[3] Includes endowment for on-going monitoring.

Source: El Dorado County Oak Woodland Management Plan, April 2, 2008, Page 10, Table 4.

The 2008 analysis did not include an in-lieu fee for individual Heritage Trees or Oak Trees.

As described previously, the 2008 OWMP In-Lieu Fee was only in effect for a limited time because the OWMP itself was the subject of litigation. The County has prepared a draft ORMP reflecting a number of policy changes directed by the County Board of Supervisors. This Nexus Study has been prepared to update the assumptions and costs in support of the in-lieu fee mitigation component of the draft ORMP.

New Proposed Fee: Purpose, Approach, and Amount

Purpose of the Nexus Study and Fee

The purpose of the 2015 El Dorado County Oak Resources Nexus Study is to determine in-lieu fee rates for mitigating impacts to eligible Oak Resources, including OWAs, and IOTs.

This Nexus Study proposes a fee designed to pay the full cost of the mitigation for development impacts, including Acquisition, Initial Management & Monitoring (Initial M&M), Long-Term Management & Monitoring (Long-Term M&M), and associated Administrative functions.

Nexus Study Approach

Typically one of two methodologies is utilized to prepare a nexus study: a CIP approach and a LOS approach. The CIP approach relies on a known amount of improvements that must be funded by the fee program and a known amount of new development that will participate in the fee program. The CIP approach is appropriate when the improvements and scale of new development is known. The LOS approach relies on an established level of service and is used in cases where the amount of development is not certain.

This 2015 Nexus Study is an update to the 2008 in-lieu mitigation fee study and continues to utilize a LOS methodology. LOS standards for Oak Resources mitigation, developed in the draft ORMP, are summarized in **Figure 1.2**. This 2015 Nexus Study also notes that the LOS approach remains preferable because the amount of OWAs and IOTs ultimately conserved by one or more Oak Resources Land Conservation Organization(s) (LCOs) with funds from Oak Resources In-Lieu Fees cannot be reasonably predicted at this time, for the following reasons:

- Impacts to Individual Oak Trees could occur as a result of improvements constructed on property that is already developed, unrelated to new development proposals; the County has no projections for the potential scale at which improvements to existing developed property may occur.
- The amount of impacts to Oak Resources as a result of new development is uncertain because it is not known to what extent land-use plans would avoid and/or lessen impacts to existing Oak Resources.
- For new projects that do impact Oak Resources, the mitigation requirement will depend on the percentage of woodland impact.
- The draft ORMP provides three options to mitigate impacts to Oak Resources. Developers can choose one of the three options to meet their mitigation requirements. The Oak Resources In-Lieu Fees represent one of the three options. It is not known in what proportion each option will be selected; therefore it is not known how much land would be conserved under the in-lieu fees.

Certain development activities are exempted from mitigation requirements, including small parcels that cannot be further subdivided, agricultural activities, creating defensible space/undertaking fire safe measures, qualified affordable housing projects, and certain public roads and public utility projects. **Section 7** of this Nexus Study describes these exemptions in more detail.

1.2 *Standards for Oak Woodland Resources*
2015 Draft ORMP

Standard	Oak Woodland Areas (OWAs)	Individual Oak Trees (IOTs)	
		Heritage Oak Trees	Native Oak Trees
Definition	Oak stand that contains greater than ten percent canopy cover. [1]	Native oak trees, outside of Oak Woodland Areas, with a single main trunk measuring measuring 36 dbh or greater, or with a multiple trunk with an aggregate trunk diameter measuring 36 inches or greater.	Individual oak tree, outside of Oak Woodland Areas, with a single main trunk measuring greater than 6 but less than 36 inches dbh, or with a multiple trunk with an aggregate trunk diameter measuring greater than 10 but less than 36 inches dbh.
Mitigation Ratio	00.1-50.0% of Oak Woodland Impact = 1:1 Ratio 50.1-75.0% of Oak Woodland Impact = 1.5:1 Ratio 75.1-100% of Oak Woodland Impact = 2:1 Ratio	Inch-for-inch replacement at a 3:1 ratio	Inch-for-inch replacement at a 1:1 ratio
Mitigation Obligations	Conservation, Tree Planting, Management & Monitoring	Conservation, Tree Planting, Management & Monitoring	Conservation, Tree Planting, Management & Monitoring
Duration of Conservation	Perpetuity	Seven (7) years	Seven (7) years

[1] The definition of OWAs also includes an oak stand that "may have historically contained greater than ten percent canopy cover," per Article 3.5 (commencing with Section 1360) of Chapter 4 of Division 2 of the Fish and Game Code. However, page 3 of the draft ORMP clarifies that ORMP conservation efforts focus on existing woodlands.

Prepared by New Economics & Advisory, May 2015.

Source: Draft ORMP, May 2015.

For oak woodland impacts that do not fall under an exemption category, mitigation options include on- or offsite tree planting, offsite conservation, and/or in-lieu fee payment. For IOT impacts (including Heritage Oak Trees and Native Oak Trees) that are not otherwise exempt, mitigation options include on- or offsite tree planting and/or in-lieu fee payment. This Nexus Study provides the justification for the in-lieu fee rate for each Oak Resource.

As described previously, the 2008 in-lieu mitigation fee study applied a series of cost estimate assumptions to a hypothetical 125-acre parcel to develop a per-acre fee. In contrast, this 2015 Nexus Study considers actual recent and/or current acquisition and management and monitoring costs faced by LCOs actively conserving oak woodland resources or other tree-dominated habitat. **Section 3** of this Nexus Study provides a complete list of existing LCOs actively acquiring and managing land for the purpose of conserving trees that were studied for purposes of identifying a range of costs. Data was sought for three major conservation activity categories: Acquisition, Initial M&M, and Long-Term M&M. Once the cost ranges were established and reviewed, New Economics & Advisory, in consultation with County staff, determined that costs incurred

by Placer Land Trust (PLT), American River Conservancy (ARC), and planning efforts related to the Placer County Conservation Plan (PCCP) should be prioritized because these organizations/studies provided data specific to oak woodland areas *and* operate primarily within El Dorado County or Placer County; therefore, their data represent the most accurate information pertaining to acquisition as well as management and monitoring costs. Moreover, compared to other adjacent counties (Sacramento County and/or Amador County), the attributes of Placer County's Oak Resources and development patterns are more similar to those of El Dorado County.

Costs incurred by these select LCOs are then averaged. This approach differs from the 2008 in-lieu fee analysis in that this 2015 Nexus Study takes into consideration costs for a variety of locations (rural and urban), terrains (canyon, valley, foothills), and sizes (small, ranch). Based on the recent and/or current costs incurred by these select LCOs, New Economics & Advisory developed an OWA In-Lieu Fee that includes the following components:

- Acquisition (via direct acquisition or conservation easements)
- Initial M&M
- Long-Term M&M
- Fee Program Administration

This 2015 Nexus Study also includes proposed fees for IOTs. Dudek and its subsidiary company, Habitat Restoration Sciences, Inc. (HRS), developed costs for acquisition and planting, as well as seven (7) years of management and monitoring, on a per diameter inch basis. Dudek and HRS researched current purchase prices for 15-gallon oak trees, applied industry standard assumptions for planting costs, and developed a per-acre cost of seven years of management of monitoring for a one-acre re-planting project.

This Nexus Study assumes that the County will administer the Oak Resources In-Lieu Fee program and remit fee revenues to existing or new LCO(s) dedicated to conserving Oak Resources (Oak Resources LCO). The Oak Resources LCO(s) will utilize In-Lieu Fees established herein to acquire and conserve Oak Resources.

Proposed Fee Rate Amounts

Figure 1.3 summarizes the total proposed fee rates for OWAs and IOTs. **Section 3** of this Nexus Study contains the assumptions and analysis supporting each of the OWA rates, while **Section 5** contains the assumptions and analysis supporting each of the IOT rates.

1.3 Summary of Fee Rates (2015\$) El Dorado County Oak Woodland Nexus Study

Item	Oak Woodland Areas (OWAs)			Individual Oak Trees (IOTs)	
	0.01 - 50.0% Impact	50.01 - 75.0% Impact	75.01 - 100.0% Impact	Heritage Oak Trees	Native Oak Trees
	per acre			per diameter inch	
Fee Rate	\$7,954	\$11,931	\$15,908	\$558	\$186

Prepared by New Economics & Advisory, May 2015.

Oak Woodland Area In Lieu Fee (per acre)

The OWA In-Lieu Fee ranges from \$7,954 to \$15,908 per acre, depending on the mitigation ratio level. This rate funds the cost of land acquisition, Initial M&M (years 1-5), and Long-Term M&M (years 6-perpetuity).

Individual Oak Tree In Lieu Fee (per diameter inch)

The IOT In-Lieu Fee is \$558 per diameter inch for Heritage Oak Trees and \$186 per diameter inch for Native Oak Trees. This amount funds the cost of tree acquisition and planting as well as Initial M&M (years 1-7). This Nexus Study presumes that Long-Term M&M costs will be nominal and can be covered by the Oak Resources LCO(s) through maintenance of OWAs.

Administration and Implementation

As stated previously, it is anticipated that the County will collect in-lieu fees and transfer them to one or more Oak Resources LCOs, which will be in charge of acquiring, managing, and monitoring conservation areas and tree planting efforts funded by the in-lieu fees. The proposed fee rates identified above also include a 5 percent administration cost component for County staff to calculate fee obligations, collect fee revenues, transfer revenues to the entity managing conservation efforts, implement annual inflation updates, and periodically update the Nexus Study.

Documents Consulted for the Preparation of This Report

This 2015 Nexus Study references and/or relies upon a number of other documents and interviews with LCOs. **Appendix C** contains a complete list of sources and persons consulted.

Overview of Methodology

The approach utilized to develop the Oak Resources In-Lieu Fees includes the following general steps:

1. Identify the potential scale of new development that may impact existing Oak Resources.
2. For each Oak Resource, define the mitigation requirements and ratio(s).
3. Review the costs associated with mitigation for each Oak Resource. Convert costs to a per-acre basis for OWAs and per diameter inch for IOTs.
4. Establish a fee rate and nexus for each Oak Resource In-Lieu Fee.
5. Review administrative and implementation process for the Oak Resources In-Lieu Fee programs.

Organization of this Nexus Study

The remainder of this Nexus Study is organized in the following manner:

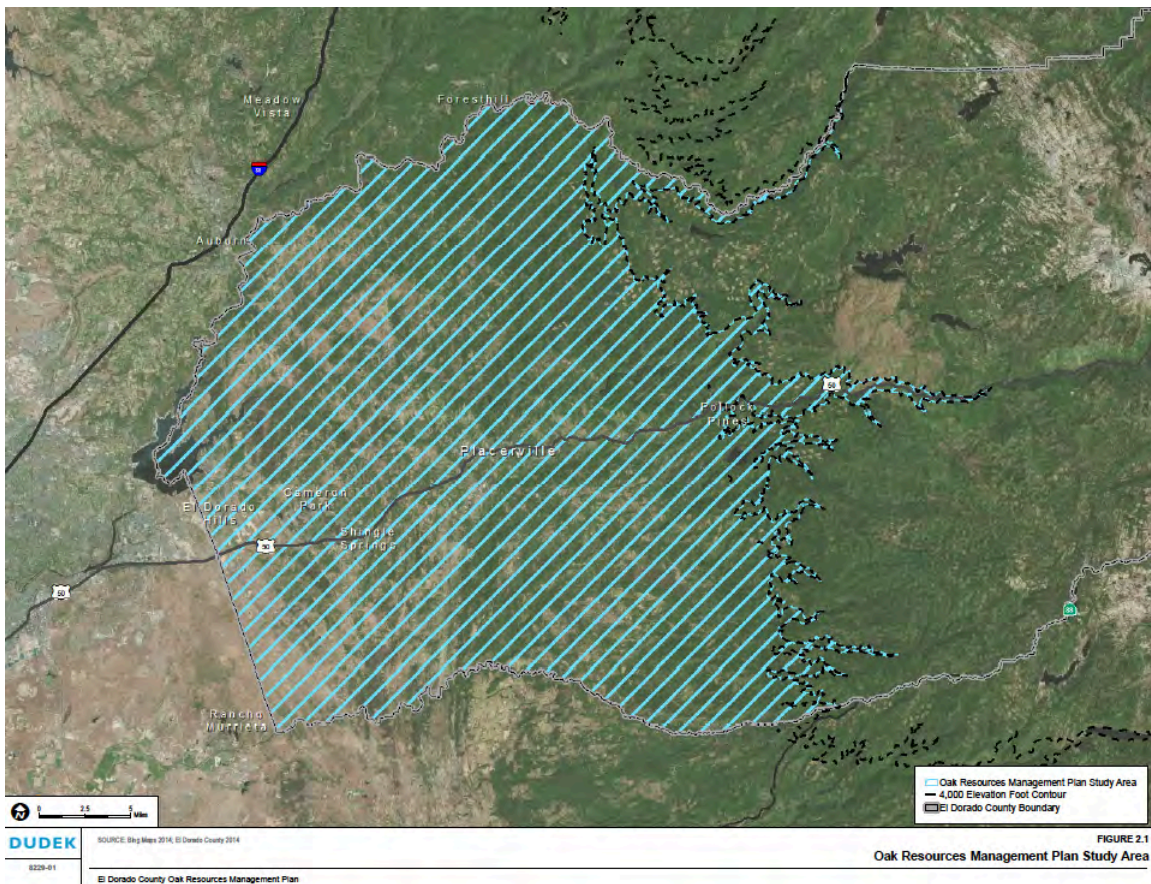
- **Section 2** provides an overview of potential housing unit and employment growth within El Dorado County.
- **Section 3** describes how oak woodland conservation costs were developed.
- **Section 4** establishes the nexus for the proposed OWA In-Lieu Fee.
- **Section 5** explains the development of individual oak tree replacement costs.
- **Section 6** establishes the nexus for the proposed IOT In-Lieu Fee.
- **Section 7** provides implementation procedures to administer the fee programs.
- **Appendix A** contains supporting calculations for OWA conservation costs.
- **Appendix B** contains supporting calculations for the endowment component of the OWA In-Lieu Fee.
- **Appendix C** contains a bibliography for this Nexus Study.

2. Fee Program Boundary, Eligibility, & Standards

This section provides an overview of the boundaries of the Oak Resources In-Lieu Fee program and reviews the type and potential scale of development that may elect to pay the fees.

Fee Program Boundaries

The boundaries for this Nexus Study are the same as those included in the draft ORMP, which include the area bordered by the County's administrative boundary to the north, west, and south and ending at the 4,000-foot elevation to the east as shown in **Figure 2.1**. This area contains the same categories of oak woodlands as described in the California Department of Forestry and Fire Protection's (CAL FIRE) Fire and Resource Assessment Program (FRAP) and addressed in the County's 2004 General Plan.



New Development Eligible for In-Lieu Fee Option

Mitigation requirements for impacts to OWAs will apply to any land development project requiring a discretionary entitlement from the County that is subject to review under CEQA and which will have an impact on Oak Resources within the draft ORMP boundaries. Mitigation requirements for IOTs will apply to any activity requiring a building permit or grading permit issued by El Dorado County and/or any action requiring discretionary development entitlements or approvals from El Dorado County within the draft ORMP boundaries. **Section 7** of this Nexus Study contains a description of development activities that are exempt from mitigation requirements for Oak Resources. For non-exempt activities, the draft ORMP provides options for mitigation:

- on- or offsite tree planting⁴;
- off-site conservation;
- payment of the In-Lieu Fee; or
- a combination of the above.

The Oak Resources In-Lieu Fees will apply to any eligible, non-exempt development project that chooses to mitigate quantified impacts to Oak Resources by selecting the In-Lieu fee payment option.

Anticipated Growth Through 2035

The projected growth throughout the County is anticipated to impact oak resources. **Figure 2.2** summarizes the scale of development anticipated between 2014 and 2035 within unincorporated areas of the County's Western Slope (the area outside of the Lake Tahoe Basin⁵). This area includes a larger territory than the draft ORMP boundary but is the closest approximation for purposes of this Nexus Study.

Oak Resources Mitigation Standards

LOS standards for Oak Resources mitigation, developed in the draft ORMP, are summarized in **Figure 1.2** in **Section 1** of this Nexus Study. For OWAs, the mitigation ratio depends on the percentage of OWAs impacted. For IOTs, mitigation is based on the total tree trunk diameter inches removed.

⁴ As noted in Section 2.2.2 of the draft ORMP, replacement planting shall not account for more than 50 percent of the oak woodland mitigation requirement, consistent with California Public Resources Code Section 21083.4..

⁵ SACOG tracks data for multiple Transportation Area Zones (TAZs) that comprise the Western Slope; TAZ 13 appears to include a large area between the boundary of the draft ORMP and the Lake Tahoe Basin.

2.2

**El Dorado County Development Projections
2010-2035**

Category	Units/Jobs			Growth 2010-2035
	2010	2020	2035	
Housing Units [1]	59,668	66,102	77,077	17,409
Jobs [2]	32,597	38,539	48,675	16,078

Prepared by New Economics & Advisory, May 2015.

[1] From BAE 2035 Growth Projections Memorandum, Table 2: Projected Residential Growth Rates, 2010 to 2035. (Full report citation below). Projection based on historical average annual rate of new units (2000-2011).

[2] From BAE 2035 Growth Projections Memorandum, BAE Memorandum, Table 5: Projected New Jobs by Market Area, 2010-2035. (Full report citation below).

Source: BAE Urban Economics, 2035 Growth Projections Memorandum, March 14, 2013.

3. Costs to Conserve OWAs

New development that impacts existing OWAs will have three options to mitigate impacts: plant replacement trees on- or offsite, conserve oak woodlands off-site, and/or pay an In-Lieu Fee. This section of the Nexus Study describes the costs associated with mitigation through an In-Lieu OWA Fee.

Oak Woodland Areas Overview

Figure 3.1 provides a summary of the different types of Oak Woodland and the number of acres that currently exist in the draft ORMP Study Area (including within the PCAs).

3.1 Oak Woodland Types El Dorado County, 2015

Oak Woodland Type	ORMP Boundary Total (acres)	Percent
Blue Oak Woodland	42,616	17%
Blue Oak-Foothill Pine	12,915	5%
Coastal Oak Woodland	13	<0.1%
Montane Hardwood	157,455	63%
Montane Hardwood-Conifer	34,322	14%
Valley Oak Woodland	3,434	1%
Total	250,755	100%

Source: Draft ORMP, Table 1, May 2015.

Impacts to OWAs

As discussed in Section 5 of the draft ORMP, the number of OWA acres impacted by a project, if any, will be identified in an Oak Resources Technical Report (ORTP) prepared by a qualified professional hired by the project applicant. Should it be determined that OWAs will be impacted, the development project will be subject to the mitigation ratios shown in Figure 1.2 in Section 1 of this Nexus Study.

Approach to Estimating Costs

As explained in Section 1, this Nexus Study considers actual recent and/or current acquisition and M&M costs faced by LCOs actively conserving oak woodland resources or other tree-dominated habitat. Figure 3.2 lists these organizations and provides an

3.2 Select Land Conservation Organizations (LCOs) Key Characteristics

Organization	Geographical Areas Covered	Accredited [1]	Entity Structure	Description of Habitat Conserved	Organization's Responsibilities
American River Conservancy (ARC)	Central Sierra Nevada Foothills (El Dorado, Amador, & Placer Counties)	No	501(c)3	Various habitat, recreation access, riparian corridors, oak savannahs.	Promote healthy ecosystems within the Upper American and Upper Cosumnes River watersheds.
Placer Land Trust (PLT)	Placer County (West Placer County)	Yes	501(c)3	Open spaces, natural areas, wildlife habitat, family farms, and working ranches.	Monitor, restore & manage properties to enhance the public value of properties, restore wildlife habitat, etc.
Placer County Conservation Plan (PCCP)	Placer County	N/A	N/A	Natural areas and landscapes containing oak woodland, aquatic and wetland ecosystems, valley foothill riparian, and vernal pool grasslands.	Protect habitat, wildlife, agricultural land, and retain the functionality of ecosystems.
Sempervirens Funds (SF)	Santa Cruz Mountains between Silicon Valley and the Pacific Ocean	Yes	501(c)3	Redwood forests and forest lands.	Conserve land, protect old-growth redwoods, and create refuge and recreation.
Sacramento Tree Foundation (STF)	Sacramento Region Counties	No	501(c)3	Native trees in 6 counties.	Conserve trees for neighborhoods, schools, parks and open spaces. Provide full-service tree mitigation programs and services.
Sierra Foothill Conservancy (SFC)	Fresno, Madera, Mariposa, and Merced	Yes	501(c)3	Wildlife and nature preserves in Sierra Nevada foothills	Protect, manage, administer, and preserve land and wildlife in the Central California area.
Save the Redwoods League (SRL)	Coastal Redwood counties: Humboldt, San Mateo, Napa, Mendocino, Sonoma, Tulare, Monterey, Santa Cruz, and Del Norte	Yes	501(c)3	Redwood forests and surrounding lands	Protect and restore redwood forests.
Sacramento Valley Conservancy (SVC)	Sacramento, Yolo, Sutter, Yuba, Placer, Amador, San Joaquin, Solano Counties	Yes	501(c)3	Open space	Create dedicated open space, facilitation of acquisition, conservation easements and other cooperative efforts.

Prepared by New Economics & Advisory, May 2015.

Sources: New Economics internet research, interviews, and land conservation organization feedback, April-June 2015.

[1] Accreditation through Land Trust Alliance as of May 2015.

indication of the geographic territory they serve, their structure, the type of habitat conserved, and their primary conservation role(s).

These organizations were selected because of their focus on conserving woodland habitat or other tree-dominated habitat. **Figure 3.3** provides an overview of the scale of habitat protected by these LCOs, how this habitat has been protected (via direct acquisition or conservation easement), and the scale of habitat actively managed by each organization. Because some organizations protect a variety of habitat land, (e.g. vernal pools, riparian corridors), acreage shown in this figure includes *all* land protected by the organization, not merely land protected for purposes of conserving woodland habitat.

For each of these LCOs, New Economics & Advisory collected data regarding recent land acquisitions, (including the cost and method), as well as annual management and monitoring costs. These costs were then translated into a “per-acre” basis. Data was gathered from each LCO’s website, publicly available financial statements, and/or consultation with LCO staff. **Appendix A** contains the detailed technical research supporting financial calculations for each of the LCOs.

Conservation Activities Overview

This 2015 Nexus Study identifies three stages of conservation:

1. **Acquisition.** This first stage includes due diligence, planning for management and monitoring, and the actual land acquisition transaction.
2. **Initial M&M.** According to interviews with LCO staff, this second stage of conservation typically lasts up to 5 years and includes baseline documentation, fuel management, clearing of debris, establishment of fencing, active monitoring to ensure that OWAs or IOTs are maintained, etc.
3. **Long-Term M&M.** This third stage of conservation is the least onerous and involves periodic fuels management, invasive species management, and repairs on an as-needed basis.

Figure 3.4 provides examples of conservation activities during each of these stages.

3.3 LCO Land Protection Trends Distribution of Land Holdings and Management

Description	Habitat Protected (Acres)			Total Protected	Acres Actively Managed [1]
	Owned in Fee Title	Held via CE	Other Ownership		
American River Conservancy (ARC)	13,661	1,740	9,583	24,984	15,401
% of Total	55%	7%	38%	100%	62%
Placer Land Trust (PLT)	3,737	4,029	-	7,766	4,825 [2]
% of Total	48%	52%	0%	100%	62%
Placer County Conservation Plan (PCCP)	N/A	N/A	N/A	48,250 [3]	N/A
% of Total	N/A	N/A	N/A	100%	N/A
Sempervirens Fund (SF)	5,180 [4]	354	5,179	10,713	10,713
% of Total	48%	3%	48%	100%	100%
Sacramento Tree Foundation (STF)	-	NA	NA	NA	30 [5]
% of Total	NA	NA	NA	NA	NA
Sierra Foothill Conservancy (SFC)	6,481	16,721	2,541	25,743	6,481
% of Total	25%	65%	10%	100%	25%
Save the Redwoods League (SRL)	2,950	22,986	33	200,000	14,454
% of Total	1%	11%	0%	100%	7%
Sacramento Valley Conservancy (SVC)	7,000	N/A	N/A	20,000	4,062 [6]
% of Total	35%	N/A	N/A	100%	20%

Prepared by New Economics & Advisory, May 2015.

[1] Each organization manages a combination of land owned in fee title and/or through contracts on land protected via conservation easements. Figures reflect a subset of total protected lands.

[2] Based on budgeted forecasts by acreage provided by Placer Land Trust staff for the 2016-2020 period.

[3] PCCP plans to acquire 48,250 acres of conservation land by 2065. This plan is still being prepared.

[4] Sempervirens Funds co-owns the land they manage. For purposes of this analysis New Economics includes only half of the land co-ownership with Peninsula Trust. Sempervirens places conservation easements on land it owns.

[5] In 2014, STF planted and cared for 4,450 trees. At about 150 trees per acre, STF estimates 30 acres of land under management.

[6] Acres managed under Deer Creek Hill Preserve.

Sources: New Economics internet research, interviews, and land conservation organization feedback, April-June 2015.

3.4 Typical Conservation Activities-- OWAs Acquisition, Management, and Monitoring

Acquisition	Initial M&M [1]	Long-Term M&M
Conservation Easement Acquisition	Biological Surveys/Baseline Documentation	License/Contract Agreement Mgmt.
Direct Property Acquisition	Fuel Load Mgmt.	Fuel Load Mgmt.
Legal Document Prep. & Review	Equipment & Materials Mgmt.	Volunteer Training/Coordination
Site Inspection	Database Mgmt./Reporting	Office Equipment/Computers Maint./Upgrades
Aerial Photos	Photo-Documentation	Endowment Mgmt.
Appraisals	Manage/Transition Cattle/Grazing Leases	Aerial Photos
Due Diligence Surveys/Analyses	Monitoring & Adaptive Management:	Administration/Overhead
Mitigation/CE Negotiations	Reforestation	Infrastructure/Property Maintenance:
	Exotic Species/Plant Removal	Debris/Trash Mgmt.
	Building Removal/Maint.	Weed Control
	Invasive Vegetation/Thatch Mgmt.	Cattle Grazing Monitoring & Mgmt.
	Invasive Species Mgmt.	Water Systems Maint.
		Fence Building & Repairs
		Trail Building & Maintenance
		Erosion/Road Repair & Improvements
		Recreation Use Enhancements

Prepared by New Economics & Advisory, May 2015.

[1] Some Initial M&M tasks are carried over to long-term management and monitoring with less intensity.

Sources: California Council of Land Trust website accessed May 2015; Land Trust Alliance website, accessed May 2015; New Economics internet research, interviews; and land conservation organization feedback, April-June 2015.

Acquisition (Year 0)

Acquisition of OWAs are expected to take one of two forms:

- **Direct Acquisition.** This Nexus Study presumes that the Oak Resources LCO(s) will hold fee title to property conserved through direct acquisition (instead of passing it along to another public agency or non-profit entity). This Nexus Study also assumes that properties conserved via direct acquisition will also be actively managed by the LCO. This assumption is consistent with current practices for many of the LCOs tracked in this analysis.
- **Acquisition of Conservation Easements (CEs).** Properties protected through the purchase of CE's are expected to remain under the ownership of private landowners holding fee title to such properties. LCO interviews indicated that land protected through CEs is, in some cases, managed by the landowners but nearly always monitored (for compliance purposes) by the LCO. In other cases, the landowner and LCO enter into an M&M contract that specifies the range and cost of M&M services to be provided by the LCO. This 2015 Nexus Study presumes that OWAs protected through CE's will be subject to an active M&M contract between the land owner and Oak Resources LCO and that the LCO will provide the same level of M&M as land owned by the Oak Resources LCO.

In addition to the purchase price for acquisition of property or CE's, other costs included in this category include legal services, appraisals, due diligence, title insurance and escrow fees, and organizational staff time associated with acquisition efforts.

Direct Acquisition Costs

Figure 3.5 contains a summary of direct property acquisition cost trends for LCOs on a per-acre basis. These per-acre figures reflect acquisitions expressly made for purposes of conservation, predominantly within the last five years, and reflect nominal dollars.⁶ **Appendix A** contains supporting acquisition information for each LCO, including the purchase price, other acquisition-related costs, and the size of the property. In some cases, LCO staff was able to articulate trends as well as specific transaction details. Recent conservation land costs among LCOs range from \$1,000 to nearly \$17,000 per acre, but most fall within a range of \$2,800 to \$12,000 per acre.

New Economics & Advisory then further reviewed per-acre costs incurred within El Dorado County and Placer County, given that these areas provide the most proximate approximations of cost likely to be incurred by one or more Oak Resources LCOs conserving OWAs with funds from Oak Resources In-Lieu Fees.⁷ **Figure 3.5** lists data points from the following entities:

- **El Dorado County Assessor's Office.** The Assessor's Office provided a list of land transactions over the last five years for properties that contain OWAs. Of the information provided (see **Appendix A Table A1**), one transaction stood out as a viable comparable because a significant portion of the property contained OWA. This transaction, which dates back to 2012, is included in **Figure 3.5**. The other transactions contained relatively little OWA and their prices per acre reflect their "development" value, as opposed to their potential OWA value.
- **ARC.** ARC provided three direct acquisition transactions as well as a per-acre estimate that staff utilizes for planning purposes. These transactions varied in size from 1,000 to 10,000 acres. Because ARC is about to complete an unusually large land purchase, New Economics & Advisory applied a direct average approach when deriving a per-acre cost for this organization (shown- in **Appendix A Table A2.1**).
- **PLT.** PLT provided two direct acquisition transactions for land containing OWAs; these transactions varied in size from 80 acres to nearly 1,800 acres and costs include purchase price, legal fees, appraisal, title insurance and escrow fees, and staff and administrative time. **Appendix A Table A3.1** contains the detailed documentation of these transactions. Staff also provided their input on current per-acre market prices for oak woodland in different terrains within Placer County.

⁶ Real estate transactions are not converted to a single year (i.e. 2015\$) owing to varying market conditions over time and by market area. As a result, all transactions are shown in nominal dollars—or the cost incurred in the year they were incurred—and are not inflated to 2015\$.

⁷ For example, Save the Redwoods League (SRL) makes the bulk of its acquisitions along the California Coast for properties that contain redwood groves; coastal values tend to be significantly high compared to Central Valley values.

3.5 Direct Acquisition Price Assumption LCOs (Nominal Dollars)

Organization	Recent Property Acquisitions	
	Acres Purchased [1]	Cost per Acre [2]
All LCO Data		
El Dorado County Assessor Comparable Transaction	71	\$2,047
American River Conservancy (ARC)	12,139	\$5,400 [3]
Planning Estimate Provided by Staff		\$5,000
Placer Land Trust (PLT)	1,853	\$5,500
Canyon Areas Estimate from Staff [4]	N/A	\$3,000 - \$4,000
Foothill Areas Estimate from Staff [4]	N/A	\$5,000 - \$6,000
Valley Areas Estimate from Staff [4]	N/A	\$10,000 - \$12,000
Oak Woodland Areas Overall Estimate from Staff [3]		\$5,500
Sierra Foothill Conservancy (SFC)	2,291	\$1,000
Sacramento Valley Conservancy (SVC)	4,062	\$2,812
Placer County Conservation Plan (PCCP)	N/A	N/A
Sacramento Tree Foundation (STF)	N/A [5]	N/A
Save the Redwoods League (SRL)	158	\$16,772
Sempervirens Fund (SF)	429	\$8,886

LCO Data Applied in this Analysis

El Dorado County Assessor Comparable Transaction	71	\$2,047
American River Conservancy (ARC)	12,139	\$5,400
Planning Estimate Provided by Staff	N/A	\$5,000
Placer Land Trust (PLT)	1,853	\$5,500
Canyon Areas Estimate from Staff [4]	N/A	\$3,000 - \$4,000
Foothill Areas Estimate from Staff [4]	N/A	\$5,000 - \$6,000
Valley Areas Estimate from Staff [4]	N/A	\$10,000 - \$12,000
Oak Woodland Areas Overall Estimate from Staff [3]		\$5,500
Direct Acquisition Price Applied for this Analysis		\$5,000

Prepared by New Economics & Advisory, May 2015.

[1] Reflects select recent purchases, based on information provided directly by organizations or taken from their published financial documents.

[2] Reflects weighted average cost of all recent acquisitions, unless otherwise noted.

[3] Reflects straight average of recent acquisitions because one large transaction would otherwise skew the result.

[4] As reported by PLT staff, May 2015.

[5] STF does not own or acquire property.

Source: See Technical Appendix A for supporting calculations.

Data points developed from these three sources provides a narrower range of \$2,000 - \$12,000, with most points falling between \$3,000 and \$6,000. New Economics & Advisory selected a direct acquisition price of \$5,000 per acre for purposes of this 2015 Nexus Study; this amount falls within the range of prices experienced and/or anticipated by the organizations actively conserving OWAs within closest proximity to El Dorado County and is aligned with the expertise of organizational staff. The selected price is also higher than the mid-point of the range to allow for purchase of non-OWA land included in a parcel that contains the desired amount of OWA acreage.

Conservation Easement Acquisition Costs

CE's tend to provide a more cost effective means of conserving land. **Figure 3.6** provides a summary of recent acquisitions via CE's by LCOs. These per-acre figures reflect CEs entered into expressly for purposes of conservation, predominantly within the last five years. **Appendix A** contains supporting CE information for each LCO, including the purchase price, other acquisition-related costs, and the size of the property. Because CEs are used less often than direct acquisition, there were fewer CE data points; nonetheless, individual easement transactions varied from 26 acres (PLT) to 22,986 (Save the Redwoods League) acres in size. These data points provide a range of \$700 - \$3,500 per acre.

Interviews with LCO staff revealed the following important caveats regarding valuation of CEs:

- CE's are sometimes chosen over direct acquisition because the subject property has a development restriction already and cannot be developed. For example, a subject property within a larger master planned community may have a vernal pool on it. Other examples of development restrictions can include poor road access, lack of utility connections, steep slope, etc. In these cases, because the property is already prevented or hindered from being developed, the starting appraised value may well be lower than a nearby "comparable" property that can be developed.
- The value for a CE should, theoretically, reflect the value of "development potential," excluding other income potential for the property, primarily associated with grazing and/or timber. LCO staff experienced in appraisals have observed that CE values are often lower than expected by the landowner, which can act as a disincentive to landowners interested in placing a CE on their property. In practice, only properties located in urban areas or areas facing significant development pressures tend to generate enough value for a CE to make financial sense to most landowners.

3.6 Conservation Easement Value Assumption LCO Case Studies (Nominal Dollars)

Organization	Recent Conservation Easement Purchases	
	Acres [1]	Cost per Acre
All LCOs		
American River Conservancy (ARC)	1,178	\$1,585
Placer Land Trust (PLT)	858	\$1,600
Sierra Foothill Conservancy (SFC)	6,948	\$700
Sempervirens Fund (SF)	151	\$3,477
Save the Redwoods League (SRL)	23,364	\$771
Placer County Conservation Plan (PCCP)	N/A	N/A
Sacramento Tree Foundation (STF)	N/A	N/A
Sacramento Valley Conservancy (SVC)	N/A	N/A

LCO Data Applied in this Analysis

American River Conservancy (ARC)	1,178	\$1,585
Placer Land Trust (PLT)	858	\$1,600
CE Acquisition Price Applied for this Analysis [2]		\$1,600

Prepared by New Economics & Advisory, May 2015.

[1] Reflects select recent Ces, based on information provided directly by organizations or taken from their published financial documents.

[2] Figure rounded to nearest hundred dollars.

Source: See Technical Appendix A for supporting calculations.

New Economics & Advisory further reviewed per-acre CE costs incurred within El Dorado County and Placer County, given that these areas provide the most proximate approximations of cost likely to be incurred by an Oak Resources LCO conserving OWA with funds from Oak Resources In-Lieu Fees. **Figure 3.6** lists data points from the following entities:

- **ARC.** ARC provided one recent CE for a 1,200-acre easement. Costs included the purchase price as well as a contribution to an Endowment Fund; the endowment contribution was included in the cost because the purchase price could have been increased without this contribution.
- **PLT.** PLT provided five recent CE transactions; these transactions varied in size from 26 to 350 acres and costs include purchase price, legal fees, mitigation contracts, and contributions to a Stewardship Fund. The Stewardship Fund contribution was included in the cost because the purchase price could have been increased without this contribution. **Appendix A Table A3.1** contains the

detailed documentation of these transactions. Staff also provided their input on current per-acre market prices for oak woodland in different terrains within Placer County.

Data points developed from these two sources provides an estimate of \$1,600 per acre for CE costs. New Economics & Advisory selected this cost for purposes of this 2015 Nexus Study; this amount falls within the range of prices experienced and/or anticipated by the organizations actively conserving OWAs within closest proximity to El Dorado County.

Calculation of Overall Acquisition Cost Per Acre Assumption

The Acquisition Component of the OWA In-Lieu Fee should account for both direct acquisitions and acquisitions via CEs. **Figure 3.7** indicates a range of 7% to 65% of total land acquired through CEs (as opposed to direct acquisition), with a weighted average of 18%. When considering only ARC and PLT, the range is slightly smaller—7% to 52%-- but the weighted average remains 18%. This 2015 Nexus Study applies this same proportionality of direct acquisition versus acquisition via CE's. **Figure 3.7** calculates an Acquisition cost per acre for OWAs based on this proportionality.

3.7

Weighted Average Acquisition Cost Per Acre Nominal Dollars

Organization	Total Acres Protected	CE's as a % of Total [1]
All LCOs		
American River Conservancy (ARC)	24,984	7%
Placer Land Trust (PLT)	7,766	52%
Placer County Conservation Plan (PCCP)	48,250	N/A
Sierra Foothill Conservancy (SFC)	25,743	65%
Save the Redwoods League (SRL)	200,000	11%
Weighted Average of Land Acquired via CE	[2]	18%
LCO Data Applied in this Analysis		
American River Conservancy (ARC)	24,984	7%
Placer Land Trust (PLT)	7,766	52%
Weighted Average of Land Acquired via CE		18%
Calculation of Average Acquisition Cost Per Acre		
Average Direct Acquisition Cost Per Acre	\$5,000	82%
Average CE Cost Per Acre	\$1,600	18%
Weighted Average Acquisition Cost Per Acre [3]	\$4,400	

Prepared by New Economics & Advisory, May 2015.

[1] Based on total protected land shown in Figure 1.3.

[2] Excludes STF (which does not own or acquire property), SVC (for lack of information), and PCCP (for lack of information).

[3] Figure rounded to nearest hundred dollars.

Source: See Technical Appendix for supporting calculations.

Management & Monitoring (M&M)

The draft ORMP requires that OWAs be actively managed and maintained in perpetuity. An Initial M&M stage consists of one-time activities (certain one-time tasks that must be performed), as well as specific M&M efforts conducted over the first few years to ensure that the OWAs are brought up to a manageable condition. The Long-Term M&M stage begins when Initial M&M activities come to an end and less intensive M&M activities are needed. **Figure 3.4** provides examples of these activities.

Figure 3.8 summarizes estimated M&M on a per-acre basis for LCOs; costs range from \$16 (from planning efforts associated with the Placer County Conservation Plan [PCCP])

to \$9,800 (Sacramento Tree Foundation [STF])⁸ per managed acre, but tended to fall mostly within a range of \$35 to \$42 per managed acre.

3.8

Annual M&M Costs -- Case Study LCOs 2015\$

Organization	Managed Acres	Annual M&M Costs per Acre
All LCOs		
Placer County Conservation Plan (PCCP)	N/A	\$16.34
Sempervirens Fund (SF)	10,713	\$35.76
Sacramento Valley Conservancy (SVC)	4,062	\$37.32
American River Conservancy (ARC)	15,401	\$40.00
Placer Land Trust (PLT)	4,825	\$42.37
Sierra Foothill Conservancy (SFC)	6,481	\$100.77
Save the Redwoods League (SRL)	14,454	\$273.45
Sacramento Tree Foundation (STF)	30	\$9,733.65
LCO Data Applied in this Analysis		
American River Conservancy (ARC)	15,401	\$40.00
Placer Land Trust (PLT)	4,825	\$42.37
Weighted Avg M&M Costs		\$40.57
Monitoring & Management Applied in Nexus Study [1]		\$41.00

Prepared by New Economics & Advisory, May 2015.

[1] Figures rounded to the nearest whole dollar.

Source: See Technical Appendix for supporting calculations.

New Economics & Advisory derived these estimates based on recent publicly available financial statements, consultation with organizational staff, and information gleaned from the organization’s web site and/or annual reports. M&M costs generally include conservation activities for active M&M as well as a proportionate share of overhead and administrative costs. **Appendix A** contains detailed financial calculations supporting M&M costs for each LCO.

New Economics & Advisory further reviewed per-acre CE costs incurred by organizations actively managing OWAs in El Dorado County and/or Placer County, given that these areas provide the most proximate approximations of cost likely to be incurred by an Oak

⁸ STF’s primary mission is to plant trees as opposed to maintaining existing woodland.

Resources LCO conserving OWAs with funds from Oak Resources In-Lieu Fees. **Figure 3.8** lists data points from the following entities:

- **ARC.** ARC staff provided a verbal estimate of \$35-40 per acre to manage oak woodland areas located on ranch-size properties (1,000 acres+); this amount includes 15-20% overhead. Staff also pointed out that annual M&M costs can be more expensive for smaller properties, properties located in urban areas, or properties that provide recreational access. New Economics & Advisory applied the high end of the range for purposes of this 2015 Nexus Study to provide buffer for properties that cost more to manage and monitor.
- **PLT.** PLT provided M&M costs for four conservation properties recent CEs transactions; these costs include active M&M, 15% overhead, and maintenance of field equipment. PLT also cited the need for periodic surveys and aerial photos, but has not yet performed any of these on oak woodland properties.

Appendix A contains the detailed documentation supporting these cost estimates.⁹

Initial M&M

Initial M&M includes one-time costs spread over the first few years of managing and monitoring a conservation property as well as five years of typical M&M annual costs. One-time costs typically include baseline documentation, fuel management, clearing of debris, establishment of fencing, active monitoring to ensure that OWAs are maintained, etc. LCO staff confirmed that Initial M&M costs are higher than Long-Term M&M costs; also, the Initial M&M stage lasts 2-5 years, to allow the LCOs to spread one-time costs over a number of years.

Existing LCOs were unable to parse out the cost of Initial M&M activities. In some cases, Initial M&M costs are factored into the Acquisition price (in the form of M&M contracts, as well as a portion of contributions to a Stewardship Fund and/or Endowment Fund). Also, Initial M&M costs can vary significantly depending on the nature and needs of the property; for example, to the extent that a property is located in an urban area and/or has public access, Initial M&M costs tend to be higher because of the need to address recreation access, trespassing, dumping, fencing, etc.

However, PCCP planning efforts have considered Initial M&M activities for oak woodlands and other habitat; based on the financial planning worksheets developed by the PCCP, **Figure 3.9** provides an indication of one-time costs that can be incurred during the Initial M&M period.

⁹ Estimated M&M costs for the PCCP were excluded from the final M&M cost per acre calculation because, at the time of preparing this Nexus Study, Placer County staff knowledgeable about oak woodland management were unavailable to provide clarifications regarding why this planning effort appeared to have a much lower cost per acre compared to other organizations actively engaged in M&M efforts.

3.9 M&M Costs - Potential One-Time Costs 2015\$

Expenditure	Amount	Metric	Cost Per Acre
One-Time Activities (Year 0) [1]			
County Field Facilities Contribution [2]	\$500,000	Projected 48,250 acres within 50-yr permit period.	\$10.36
Oak Woodland Fuel Load Mgmt.	\$1,800	Initial One-Time Cost per acre.	\$1,800.00
Subtotal One-Time Activities			\$1,810.36
Inflated to 2015\$			\$2,104.22
One-Time Costs Applied in this Analysis [3]			\$2,104.00

Prepared by New Economics & Advisory, May 2015.

Source: Woodland Restoration Potential: Placer County Conservation Plan, Richard R. Harris, Ph.D., February 2013; and PCCP Cost Model 2013 Working Draft 9/23/2013.

[1] Reflects cost of one-time activities conducted shortly after undertaking management and monitoring responsibilities.

[2] This estimated cost is currently incurred by Placer County as estimated for purposes of developing the Placer County Conservation Plan (PCCP). To ensure full funding, New Economics has integrated this cost into Initial M&M.

[3] Figure rounded to nearest dollar.

In addition to these one-time costs, this analysis assumes that the Oak Resources LCO(s) will incur typical annual M&M costs shown in **Figure 3.8**. As a result, the Initial M&M period will include both one-time costs and annual M&M costs. This 2015 Nexus Study includes an Initial M&M period of five (5) years based on recommendation of LCOs and standard practices.

Figure 3.10 provides the total cost per acre for Initial M&M.

3.10 M&M Costs -- OWAs 2015\$

Item	Cost per Acre
Initial M&M (Yrs. 1-5)	
One-Time Costs	\$2,104
M&M Costs (Yrs. 1-5) [1]	\$205
Total Initial M&M Costs	\$2,309
Initial M&M Costs Applied in this Analysis [2]	\$2,300

Prepared by New Economics & Advisory, May 2015.

[1] Reflects annual cost of \$41 over five years.

[2] Figure rounded to nearest one hundred dollars.

Long-Term M&M

The draft ORMP requires M&M in perpetuity for OWAs. As a result, the OWA In-Lieu Fee is designed to fund annual M&M in perpetuity to ensure that conservation land can be adequately maintained over time. **Figure 3.8** establishes an annual M&M cost of \$41 per acre; this figure forms the basis for Long-Term M&M costs on a per-acre basis.

Endowment Calculations

To ensure that Long-Term M&M can be provided in perpetuity, it is expected that Oak Resources LCOs will create an Endowment Fund whose annual interest accrual can be utilized to fund annual M&M. This 2015 Nexus Study establishes a Long-Term M&M Fee Component that reflects a contribution to an Endowment Fund.

New Economics & Advisory reviewed endowment rates utilized to establish other habitat-related fee programs, ten-year averages tracked by the National Association of College and University Business Officers (NACUBO), and goals established by select LCOs. These sources indicate that long-term interest rates range from 3 to 6 percent annually. **Technical Appendix B** contains documentation of this research.

Based on this range, New Economics & Advisory calculated an Endowment component for the OWA In-Lieu Fee that generates sufficient interest beginning in Year 8 to cover Long-Term Annual M&M costs. **Figure 3.11** calculates the lump-sum per-acre contribution needed to achieve 4% annual interest earnings that can fully fund annual M&M in perpetuity. **Figure 3.12** summarizes the resulting lump-sum contribution needed, on a per-acre basis, to create sufficient interest earnings to fully fund Long-Term M&M costs, at three different interest-earning rates, beginning in Year 8. **Technical Appendix B** provides the back-up technical documentation supporting the 3% and 6% interest rate. For purposes of establishing an Endowment component for this

3.11 *Endowment Cash Flow Projections (2015\$ constant dollars)*
4.0% annually

Item	Assumption	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Habitat Acres Maintained		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Annual Maintenance Cost	\$41 per acre	\$41	\$41	\$41	\$41	\$41	\$41	\$41	\$41	\$41	\$41
Portion Prepaid by Initial M&M Fee Component [1]		\$41	\$41	\$41	\$41	\$41	\$0	\$0	\$0	\$0	\$0
Remaining Annual Maintenance Cost		\$0	\$0	\$0	\$0	\$0	\$41	\$41	\$41	\$41	\$41
Endowment Fund											
Opening Balance		\$0	\$875	\$910	\$946	\$984	\$1,024	\$1,024	\$1,024	\$1,025	\$1,025
Interest Earnings [2]	4.0% annually	\$0	\$35	\$36	\$38	\$39	\$41	\$41	\$41	\$41	\$41
New Fee Revenue Available	\$875 per acre	\$875	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Balance		\$875	\$910	\$946	\$984	\$1,024	\$1,065	\$1,065	\$1,065	\$1,066	\$1,066
Amount Applied Toward O&M Cost		\$0	\$0	\$0	\$0	\$0	\$41	\$41	\$41	\$41	\$41
Closing Balance		\$875	\$910	\$946	\$984	\$1,024	\$1,024	\$1,024	\$1,025	\$1,025	\$1,026

Prepared by New Economics & Advisory, May 2015.

[1] This amount is to be provided by developers up-front to fund 5 years of maintenance.

[2] Interest earnings are applied to previous year's ending balance.

fee study, the OWA In-Lieu Fee assumes the middle interest rate (4%) earnings assumption.

3.12 Endowment Fee Component-- OWAs 2015\$

Item	Cost per Acre
Endowment Fee	
Assuming 6.0% annual interest	\$550
Assuming 4.0% annual interest	\$875
Assuming 3.0% annual interest	\$1,250
Endowment Fee Applied in this Analysis	\$875

Prepared by New Economics & Advisory, May 2015.

Source: See Technical Appendix for supporting calculations.

Administration

As described in more detail in **Section 7** of this Nexus Study, the County will be responsible for administration of the Oak Resources Fees. Administrative duties will include the calculation and collection of the fees, tracking of deposits, preparation of required reports, performance of annual inflation adjustments, and periodic updates to the Oak Resources In-Lieu Fees Nexus Study. The County also intends to track the location of OWAs purchased with In-Lieu Fee revenues; this effort is expected to require mapping services using Geographic Information Systems (GIS) or similar software. As such, the OWA In-Lieu Fee will include a 5% administrative cost for these administrative functions.

Total Costs

Figure 3.13 provides a summary of the total cost per acre to conserve OWAs through the In-Lieu fee program. This rate includes Acquisition, Initial M&M, Long-Term M&M, and Administration.

3.13

**OWA Conservation Cost Components
Per Acre (2015\$)**

Item	Amount Per Acre
Cost Components	
Acquisition (Direct or CE)	\$4,400
Initial M&M (Years 1-5)	\$2,300
Endowment (for Long Term M&M) [1]	\$875
Subtotal Cost per Acre	\$7,575
Administration (5%)	\$379
Total Cost Per Acre	\$7,954

Prepared by New Economics & Advisory, May 2015.

Source: See Technical Appendix for supporting calculations.

[1] Assumes that the Endowment Fund will generate interest earnings of 4%, enough to cover the cost of providing annual M&M monitoring in perpetuity.

4. Nexus, Fee Calculation, & Fee Act Findings – OWA In-Lieu Fee

This section documents the nexus for the study, calculates the proposed rates for the OWA In-Lieu Fee, and documents the findings of this Nexus Study consistent with the Mitigation Fee Act.

Nexus Requirements

In order to impose habitat conservation impact fees, this Nexus Study demonstrates that a reasonable relationship or “nexus” exists between new development that occurs within the County and the need to conserve OWA as a result of new development. More specifically, this Nexus Study presents the necessary findings in order to meet the procedural requirements of the Mitigation Fee Act, also known as AB 1600. The requirements are as follows:

1. Identify the purpose of the fee;
2. Identify the use to which the fee is to be put;
3. Determine how there is a reasonable relationship between the fee's use and the type of development project on which the fee is imposed;
4. Determine how there is a reasonable relationship between the need for the public facility and the type of development project on which the fee is imposed;
5. Determine how there is a reasonable relationship between the amount of the fee and the cost of the public facility or portion of the public facility attributable to the development on which the fee is imposed.

Step 1: Purpose of the Fee

The OWA In-Lieu Fee proposed by this Nexus Study is designed to fund mitigation of impacts to OWAs in the County through acquisition and conservation of similar types of OWAs elsewhere in the County.

The OWA In-Lieu Fee is intended to pay the full cost of acquiring, managing, and monitoring OWAs.

Step 2: Use of the Fee

The OWA In-Lieu Fee will be used to acquire OWA through direct property acquisition or acquisition of conservation easements; to conduct Initial M&M activities and Long-Term M&M activities designed to ensure conservation in perpetuity.

Step 3: Reasonable Relationship Between Fee Use & Development

The conservation of OWAs promotes the health, safety, and general welfare of El Dorado County by protecting significant historical heritage values, enhancing the beauty and complementing and strengthening zoning, subdivision and land use standards and

regulations, while at the same time recognizing individual rights to develop private property.

The General Plan identifies the following overarching objectives (County of El Dorado 2004) that relate to the relationship between the proposed fee and new development:

- To foster a rural quality of life;
- To sustain a quality environment;
- To conserve, protect, and manage the County's abundant natural resources for economic benefits now and for the future;
- To accomplish the retention of permanent open space/natural areas on a project-by-project bases through clustering;

The Conservation and Open Space Element further identifies the following Goals for biological resources (County of El Dorado 2004):

- Goal 7.4: Identify, conserve, and manage wildlife, wildlife habitat, fisheries, and vegetation resources of significant biological, ecological, and recreational value.

The conservation of OWAs enhances the County's natural scenic beauty, sustains the long-term potential increase in property values which encourages quality development, maintains the area's original ecology, retains the original tempering effect of extreme temperatures, increases the attractiveness of the County to visitors, helps to reduce soil erosion, and increases the oxygen output of the area which is needed to combat air pollution.

The development of new residential and non-residential land uses in the County may impact existing OWAs. The proposed OWA In-Lieu Fee, charged according to the impact on OWAs, will be used to acquire and conserve other OWAs in perpetuity.

A reasonable relationship exists between the need for the OWA In-Lieu Fee and new development that would pay the fee.

Step 4: Reasonable Relationship Between Conservation Need & Development

Each new development project that impacts OWAs must mitigate these impacts through replacement tree planting on- or off-site, offsite conservation, and/or payment of an OWA In-Lieu Fee. The fee is designed to mitigate the impacts of removing OWA. The costs associated with the Acquisition, Initial M&M, and Long-Term M&M of OWAs are accounted for in the OWA In-Lieu Fee.

Step 5: Reasonable Relationship¹⁰ Between Fee Amount & Mitigation Cost

The amount of the OWA In-Lieu Fee is proportional to the cost of mitigating impacts to OWAs by new development; the in-lieu fee paid by new development is calculated based on the the mitigation requirements set forth in the draft ORMP and the cost to meet said requirements. Should new development choose the in-lieu fee option, the fee amount will be based on the scale of impacts and the mitigation ratio for that scale of impacts.

Fee Calculation

This Nexus Study provides the basis upon which a new OWA In-Lieu Fee is calculated. **Figure 4.1** summarizes the detailed cost components, shown on a per-acre basis, associated with acquisition, Initial M&M, and Long-Term M&M of OWAs actively managed by the LCO. To this total cost, an administrative component of 5% is added to cover the cost of administering and updating the fee program, calculating total fee obligations for each development opting to pay the OWA In-Lieu Fee, collecting fee revenues, and transferring these revenues to one or more Oak Resources LCO(s).

4.1 Detailed OWA Cost Composition per Acre (2015\$)

Item	Amount per Acre
OWA Cost Components	
Acquisition	\$4,400
Initial M&M (Years 1-5)	\$2,300
Endowment (for Long Term M&M)	\$875
Subtotal Cost	\$7,575
Administration (5%)	\$379
Total Cost	\$7,954

Prepared by New Economics & Advisory, May 2015.

Figure 4.2 shows the resulting fee, according to the level of OWA Impacts, made by new development. These rates would be set uniformly within the draft ORMP boundary (delineated in **Figure 2.1** in **Section 2**), and would be charged per OWA acre impacted.

¹⁰ California State Code does not define “reasonable relationship” but it is certainly broader than the “proportionate benefit” requirement for assessments (California Government Code 36620-36630). Over time the phrase “reasonable relationship” has been interpreted by preparers of fee studies to mean that there is a logical connection between the purpose of the fee and the rate assigned to those paying the fee.

As described previously, impacted OWAs will be identified in an ORTR prepared by a qualified professional retained by the Project Applicant during the development review process.

4.2 Oak Woodland Area In-Lieu Fee Rates 2015\$

Item	Oak Woodland Areas		
	0.01 - 50.0% Impact	50.01 - 75.0% Impact	75.01 - 100.0% Impact
	per acre		
Cost Per Acre	\$7,954	\$7,954	\$7,954
Mitigation Ratio	1.0 : 1	1.5 : 1	2.0 : 1
Total Fee Per Acre	\$7,954	\$11,931	\$15,908

Prepared by New Economics & Advisory, May 2015.

Fee Calculation Example

For example, if a developer wanted to remove 60% of a 10-acre OWA by paying the OWA In-Lieu Fee, the fee would be calculated as follows:

1. Acres Impacted: 10 acres times 60% = 6 acres
2. Cost Per Acre = \$7,954 per acre
3. Mitigation Ratio = 1.5 : 1.0
4. Mitigation Fee Per Acre (1.5 times \$7,954) = \$11,931
5. Fee = 6 acres times \$11,931 per acre = \$71,586 OWA In-Lieu Fee.

5. Costs to Replace IOTs

New development that impacts IOTs will have two options to mitigate impacts: plant replacement trees on- or offsite and/or pay an In-Lieu Fee.¹¹ This section of the Nexus Study describes the costs associated with mitigation through an IOT In-Lieu Fee.

Conservation Overview

For individual IOTs, the in-lieu fee is based on a diameter inch-for-inch replacement approach. This approach accounts for costs associated with acquisition and planting, expressed on a “per 1 inch of trunk diameter” basis.

It is expected that the Oak Resources LCO(s) will incur one cost to acquire and plant replacement trees, and another cost to conduct management and monitoring during an Initial M&M period of seven (7) years. This time period is a requirement of the draft ORMP, consistent with state regulations (California Public Resources Code Section 20183.4). **Figure 5.1** provides examples of conservation activities during each of these stages.

5.1 Typical Conservation Activities-- IOTs Acquisition, Management, and Monitoring

Acquisition/Planting	Initial M&M
Planting	Irrigation
Tree Acquisition	Weed Control
Due Diligence Surveys/Analyses	Staking
Aerial Photos	Mulching
	Minor Canopy Pruning
	Monitoring
	Removal of Irrigation or Protection Materials at the end of the Maintenance Period
	Installation of Above/Below Ground Protection Devices (cages, tubes, etc.)
	Pest and Disease Control (application of herbicide, fungicide, etc.)

Prepared by New Economics & Advisory, May 2015.

Sources: California Council of Land Trust website accessed May 2015; Land Trust Alliance website, accessed May 2015; New Economics internet research, interviews; and land conservation organization feedback, April-June 2015.

¹¹ On- or off-site mitigation would require a conservation easement to ensure conservation in perpetuity.

This Nexus Study assumes that IOT In-Lieu Fees will be used to plant replacement trees on properties owned and managed by the Oak Resources LCO(s); this assumption was developed in consultation with LCOs, whose staff confirmed that they only plant new trees on property they own, and not on property for which they only hold a CE.

As such, Long Term M&M costs for these replacement trees will be absorbed into the costs of managing and monitoring land acquired primarily for purposes of conserving OWAs. Therefore, no incremental Long-Term M&M cost component is included in the IOT In-Lieu Fee.

Acquisition and Planting (Year 0)

Dudek developed costs for purchasing and planting IOTs. The estimated cost for the equivalent of one inch of trunk diameter is a 15-gallon size native oak tree; the median price of 15-gallon oak trees was calculated from a survey of eight nurseries in El Dorado County and the surrounding region. Consistent with standard landscape/habitat restoration industry practices, this median price (\$60) was then doubled to account for costs associated with planting (inclusive of labor and materials), as described in the draft ORMP. The resulting per-inch individual native oak tree mitigation fee is \$120.00, as shown in **Figure 5.2**

5.2 IOT Tree Acquisition Price Local Nurseries (2015\$)

Nursery	Location	Price
Nursery Purchase Price [1]		
Oracle Oak Nursery	Hopland	\$60.00
Internal Nursery	Prather	\$59.00
Front Yard Nursery	Placerville	\$79.00
El Dorado Nursery	Shingle Springs	\$89.00
Green Acres	Folsom	\$70.00
Urban Tree Farm	Fulton	\$58.00
High Ranch Nursery	Loomis	\$58.25
Big Oak Nursery	Elk Grove	\$60.00
Median Cost		\$60.00
Estimated Acquisition Cost [2]		\$120.00

Prepared by New Economics & Advisory, May 2015.

Source: Dudek, June 2015.

[1] 15-gallon oak trees at local nurseries.

[2] Doubling the tree acquisition price is a standard industry approach utilized to estimate total planting costs.

Initial M&M (Years 1-7)

Figure 5.3 shows the cost of conducting Initial M&M for IOTs on a per diameter-inch basis. Habitat Restoration Sciences, Inc. (HRS), a subsidiary of Dudek, provided this cost estimate, based on a hypothetical tree planting scenario. The estimated amount includes costs associated with ensuring that the replacement tree grows properly; irrigation, ground protection, pruning and disease control (as listed in Figure 4.1) are some of the active management efforts undertaken during this stage.

5.3

IOT Initial M&M Cost Assumption 2015\$

Item	Per Acre Cost (1,000 15-gallon) [1],[2]	Avg. Annual M&M [3]
IOT Initial M&M		
Year 1	\$6,000	\$10,800
Year 2	\$5,500	\$9,900
Year 3	\$5,000	\$9,000
Year 4	\$4,500	\$8,100
Year 5	\$4,000	\$7,200
Year 6	\$3,500	\$6,300
Year 7	\$3,000	\$5,400
Subtotal Costs (Yr 1-7)		\$56,700
Cost Per Tree/Diameter Inch (Yr 1-7) [4]		\$56.70
Average Annual Cost Per Tree/Diameter Inch [4]		\$8.10

Prepared by New Economics & Advisory, May 2015.

Source: Habitat Restoration Sciences, Inc., June 2015.

[1] Assumes a hypothetical planting of 1,000 15-gallon oak trees (each tree representing one diameter inch). Assumes a radius of 5 feet around each planting location. Therefore the total site area is 1.80 acres; this calculation was made by HRS.

[2] If total area is less than one acre, unit cost may need to increase to account for overhead costs.

[3] Unit price per acre per year typically will not drop below \$2,500 per acre.

[4] The analysis assumes that one 15-gallon oak tree is representative of one diameter inch for a replacement tree.

Administration

As described in more detail in Section 7 of this Nexus Study, the County will be responsible for administration of the Oak Resources Fees. Administrative duties will include the calculation and collection of the fees, tracking of deposits, preparation of

required reports, performance of annual inflation adjustments, and periodic updates to the Oak Resources In-Lieu Fees Nexus Study. The County may also desire to track the location of IOTs planted with In-Lieu Fee revenues; this effort is expected to require mapping services using Geographic Information Systems (GIS) or similar software. As such, the IOT In-Lieu Fee will include a 5% administrative cost for these administrative functions.

Total Costs

Figure 5.4 provides a summary of the total cost per acre to replace IOTs through an In-Lieu fee program. This rate includes Acquisition, Initial M&M, and Administration.

5.4	IOT Conservation Cost Components	
<i>Per Diameter Inch (2015\$)</i>		
Item		Amount per Diameter Inch
IOT Cost Components		
Acquisition		\$120.00
Initial M&M (Years 1-7)		\$56.70
Endowment (for Long Term M&M) [1]		N/A
Subtotal Cost		\$176.70
Administration (5%)		\$8.84
Cost per Diameter Inch		\$185.54
Total Cost Per Diameter Inch (Rounded) [2]		\$186.00

Prepared by New Economics & Advisory, May 2015.

Source: See Technical Appendix for supporting calculations.

[1] Replacement trees will be planted on land owned and managed by the land conservation organization also overseeing Oak Woodland Areas; Long-Term M&M costs are expected to be nominal and will be absorbed into the Oak Resource LCO's overall M&M costs.

[2] Total rounded to nearest whole dollar.

6. Nexus, Fee Calculation, and Fee Act Findings – In-Lieu Individual Oak Tree Fee

This section documents the nexus for the study, calculates the proposed rates for the IOT In-Lieu Fee, and documents the findings of this Nexus Study consistent with the Mitigation Fee Act.

Nexus Requirements

In order to impose habitat conservation impact fees, this Nexus Study demonstrates that a reasonable relationship or “nexus” exists between new development that occurs within the County and the need to conserve and replace IOTs as a result of new development. More specifically, this Nexus Study presents the necessary findings in order to meet the procedural requirements of the Mitigation Fee Act, also known as AB 1600. The requirements are as follows:

1. Identify the purpose of the fee;
2. Identify the use to which the fee is to be put;
3. Determine how there is a reasonable relationship between the fee's use and the type of development project on which the fee is imposed;
4. Determine how there is a reasonable relationship between the need for the public facility and the type of development project on which the fee is imposed;
5. Determine how there is a reasonable relationship between the amount of the fee and the cost of the public facility or portion of the public facility attributable to the development on which the fee is imposed.

Step 1: Purpose of the Fee

The IOT In-Lieu Fee proposed by this Nexus Study is designed to fund mitigation of impacts to IOTs in the draft ORMP boundaries through replacement planting elsewhere in the County.

The IOT In-Lieu Fee is intended to pay the full cost of tree acquisition, planting, and maintenance for a 7-year period.

Step 2: Use of the Fee

The IOT In-Lieu Fee will be used to acquire and plant individual replacement trees and perform M&M activities for a period of 7 years.

Step 3: Reasonable Relationship Between Fee Use & Development

The replacement of IOTs promotes the health, safety, and general welfare of El Dorado County by protecting significant historical heritage values, enhancing the beauty and

complementing and strengthening zoning, subdivision and land use standards and regulations, while at the same time recognizing individual rights to develop private property.

The replacement of IOTs enhances the County's natural scenic beauty, sustains the long-term potential increase in property values which encourages quality development, maintains the area's original ecology, retains the original tempering effect of extreme temperatures, increases the attractiveness of the County to visitors, helps to reduce soil erosion, and increases the oxygen output of the area which is needed to combat air pollution.

The General Plan identifies the following overarching objectives (County of El Dorado 2004) that relate to the relationship between the proposed fee and new development:

- To foster a rural quality of life;
- To sustain a quality environment;
- To conserve, protect, and manage the County's abundant natural resources for economic benefits now and for the future;
- To accomplish the retention of permanent open space/natural areas on a project-by-project bases through clustering;

The Conservation and Open Space Element further identifies the following Goal for biological resources (County of El Dorado 2004):

- Goal 7.4: Identify, conserve, and manage wildlife, wildlife habitat, fisheries, and vegetation resources of significant biological, ecological, and recreational value.

The development of new residential and non-residential land uses in the County may result in a loss of existing IOTs. The proposed IOT In-Lieu Fee, charged according to the impact on IOTs, will be used to acquire and plant replacement trees and maintain them for a period of 7 years.

A reasonable relationship exists between the need for the IOT In-Lieu Fee and new development that would pay the fee.

Step 4: Reasonable Relationship Between Conservation Need & Development

Each new development project that impacts IOTs must mitigate these impacts through replacement tree planting on- or off-site and/or payment of an IOT In-Lieu Fee. The fee is designed to mitigate the impacts of removing Heritage Oak Trees or Native Oak Trees outside of OWAs. The costs associated with the acquisition and planting and maintenance for a period of 7 years is accounted for in the respective In-Lieu Fee program.

Step 5: Reasonable Relationship¹² Between Fee Amount & Mitigation Cost

The amount of the IOT In-Lieu Fee for impacts to Individual Oak Trees is proportional to the cost of mitigating impacts to IOTs for non-exempt development activities; the in-lieu fee amount is calculated based on the the mitigation requirements set forth in the draft ORMP and the cost to meet said requirements. Should a project proponent for non-exempt activities choose the in-lieu fee option, the fee amount will be based on the size (total number of diameter inches) of the impacted tree(s).

For example, a removed Native Oak Tree with a 10-inch trunk diameter would require mitigation for 10 diameter inches, based on the inch-for-inch replacement requirement in the draft ORMP. The IOT In-Lieu Fee assumes that a 15-gallon size replacement tree equals 1 inch in trunk diameter; therefore, mitigation for removal of a 10-inch native oak tree requires planting and maintenance of 10 15-gallon trees.

Fee Calculation

This Nexus Study provides the basis upon which a new IOT In-Lieu Fee is calculated. **Figure 6.1** summarizes the detailed cost components, shown on a per-diameter inch basis, associated with acquisition/planting and maintenance for 7 years undertaken by the Oak Resources LCO(s). To this total cost, an administrative component of 5% is added to cover the cost of administering and updating the fee program, calculating total fee obligations for each development opting to pay the IOT In-Lieu Fee, collecting fee revenues, and transferring these fee revenues to the Oak Resources LCO(s).

¹² California State Code does not define “reasonable relationship” but it is certainly broader than the “proportionate benefit” requirement for assessments (California Government Code 36620-36630). Over time “reasonable relationship” has been interpreted by preparers of fee studies to mean that there is a logical connection between the purpose of the fee and the rate assigned to those paying the fee.

6.1 Detailed IOT Cost Composition 2015\$

Item	Amount per Diameter Inch
Cost Components	
Acquisition	\$120.00
Initial M&M (Years 1-7)	\$56.70
Endowment (for Long Term M&M) [1]	N/A
Subtotal Cost	\$176.70
Administration (5%)	\$8.84
Cost per Diameter Inch	\$185.54
Total Cost (Rounded) [2]	\$186.00

Prepared by New Economics & Advisory, May 2015.

[1] Replacement trees will be planted on land owned and managed by the land conservation organization also overseeing Oak Woodland Areas; Long-Term M&M costs are expected to be nominal and will be absorbed into the Oak Resource LCO's overall M&M costs.

[2] Total rounded to nearest whole dollar.

Figure 6.2 shows the resulting fee, according to the cost and mitigation ratio, made by new development, for Heritage Oak Trees compared to Native Oak Trees. These rates would be set Countywide within the draft ORMP boundary, and would be charged on a per IOT tree diameter inch impacted.

6.2 IOT In-Lieu Fee Rates 2015\$

Item	Heritage Oak Trees	Native Oak Trees
	per diameter inch	
Cost Per Acre	\$186	\$186
Mitigation Ratio	3 : 1	1 : 1
Total Fee Per Acre	\$558	\$186

Prepared by New Economics & Advisory, May 2015.

Fee Calculation Example

For example, if a developer wanted to remove one 50-inch diameter Heritage Oak Tree and one 10-inch Native Oak Tree, the IOT In-Lieu Fee would be calculated as follows:

Heritage Oak Tree In-Lieu Fee Calculation

1. Diameter Inches Impacted: 1 tree at 50 diameter inches = 50 diameter inches
2. Cost Per Diameter Inch = \$186 per diameter inch
3. Mitigation Ratio: 3.0 to 1.0 diameter inch impacted
4. Fee = 50 diameter inches times \$186 per acre times 3.0 per diameter inch ratio = \$27,900 Heritage Oak Tree In-Lieu Fee

Native Oak Tree In-Lieu Fee Calculation

1. Diameter Inches Impacted: 1 tree at 10 diameter inches = 10 diameter inches
2. Cost Per Diameter Inch = \$186 per diameter inch
3. Mitigation Ratio: 1.0 to 1.0 diameter inch impacted
4. Fee = 10 diameter inches times \$186 per acre times 1.0 per diameter inch ratio = \$1,860 Native Oak Tree In-Lieu Fee

Total IOT In-Lieu Fee: \$27,900 Heritage Oak Tree In-Lieu Fee + \$1,860 Native Oak Tree In-Lieu Fee = \$29,760 Total IOT In-Lieu Fee.

7. Implementation & Administration

This concluding section of this Oak Resources Nexus Study provides an overview of implementation and administrative procedures. This section applies collectively to all Oak Resources In-Lieu Fees analyzed in this Nexus Study.

Resolution for Adoption and Authorization

After review and consideration and having conducted a public hearing herein, the El Dorado County Board of Supervisors will consider adopting this Oak Resources In-Lieu Fee Nexus Study establishing an OWA In-Lieu Fee and an IOT In-Lieu Fee (which addresses native oak trees, including heritage trees).

The Board of Supervisors of El Dorado County will also consider adopting an ordinance establishing the Oak Resources In-Lieu Fees and authorizing collection of said fees. Once adopted, the Oak Resources In-Lieu Fees Nexus Study may be updated at any time by resolution of the El Dorado County Board of Supervisors. The fee will be effective 30 days following the El Dorado County Board of Supervisors final action of the adoption of the Nexus Study, and all ordinances and/or resolutions establishing or authorizing the fee(s).

Establishment of Fees

With respect to OWAs, this program applies to any land development project requiring a discretionary entitlement from the County that is subject to review under CEQA and which will have an impact on Oak Resources. With respect to IOTs, this program applies to any activity requiring a building permit or grading permit issued by El Dorado County and/or any action requiring discretionary development entitlements or approvals from El Dorado County, other than those activities identified in the Exemptions section. The Oak Resources In-Lieu Fees shall be charged on non-exempt development activities that impact Oak Resources; these impacts will be documented in an ORTR. Impacts occurring on either public or private property are subject to this program.

The Oak Resources Fees shall be calculated during the development review process or prior to grading permit issuance for projects not subject to development review. The fees shall be calculated based on impacts identified in an ORTR and will be consistent with the mitigation ratios described in **Section 1** of this Nexus Study.

Timing of Collection of Fees

Oak Resources In-Lieu Fees shall be collected prior to issuance of a grading or building permit, filing of a parcel or final map, or otherwise commencing with the development project.

The Oak Resources Fees shall be collected by the County's Community Development Agency, Development Services Division. The County shall maintain the account.

Exemptions

Removal of OWAs and IOTs are exempt from mitigation requirements, including participation in the Oak Resources In-Lieu Fees, for certain activities. These activities, documented in the draft ORMP, include:

- Projects or actions occurring on single-family residential lots of 1 acre or less that cannot be further subdivided;
- Actions taken pursuant to an approved Fire Safe Plan for existing structures or in accordance with defensible space maintenance requirements for existing structures in state responsibility areas (SRA) as identified in California Public Resources Code (PRC) Section 4291 (actions associated with Fire Safe Plans or defensible space areas for new or proposed development are not exempt);
- Actions taken to maintain safe operation of existing utility facilities in compliance with state regulations (PRC 4292-4293 and California Public Utilities Commission (CPUC) General Order 95) (actions associated with development of new utility facilities, including transmission or utility lines, are not exempt);
- Road widening and realignment projects necessary to increase capacity, protect public health, and improve safe movement of people and goods in existing public rights-of-way (as well as acquired rights-of-way necessary to complete the project) where the new alignment is dependent on an existing alignment (new proposed roads within the County Circulation Element and internal circulation roads within new or proposed development are not exempt);
- 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, or within a sphere of influence as defined pursuant to California Government Code §56076;
- Agricultural activities conducted for the purposes of producing or processing plant and animal products or the preparation of land for this purpose;
- Agricultural cultivation/operations, whether for personal or commercial purposes (excluding commercial firewood operations);
- Activities occurring on lands in Williamson Act Contracts or under Farmland Security Zone Programs;
- Actions taken during emergency firefighting operations and associated post-fire activities;
- Native oak tree removal when a tree exhibits high failure potential with the potential to injure persons or damage property, as documented in writing by a Certified Arborist or Registered Professional Forester; or

- When a native oak tree, other than a Heritage Tree, is cut down on the owner’s property for the owner’s personal use.

Fee Rate Reductions for Affordable Housing Projects

The draft ORMP also provides for reductions to OWA mitigation for affordable housing projects that are not exempted as defined above. Specifically, development projects that propose a minimum of 10 percent of the dwelling units as income restricted affordable units, as defined by California Health and Safety Code §50052.5, 50053, and 50093, shall be granted a reduction in the amount of oak woodland that is required to be mitigated, as set forth below in **Figure 7.1**. This reduction for affordable housing project applies only to OWA impacts and does not apply to IOT impacts.

7.1 Affordable Housing Mitigation Reduction ORMP

Affordable Housing Type (Household Income Level)	Percent Oak Woodland Mitigation Reduction (for portion of project that is income restricted)
Very Low	200%
Lower	100%
Moderate	50%

Source: Draft Oak Resource Management Plan, May 2015.

For example, a proposed project that contains 1,000 units will include 200 (or 20%) *moderate-income* units. The project’s ORTR indicates an impact on 70% of existing OWAs. The developer chooses to pay the OWA In-Lieu Fee to meet the mitigation obligation. The rate reduction for affordable housing would be calculated as follows:

- **Step 1: Establish the Original Mitigation Ratio.** The Original Mitigation Ratio would be 1.50 to 1 for a 70% impact on OWAs.
- **Step 2: Identify the Portion of the Affordable Units.** Affordable housing constitutes 20% of the residential units.
- **Step 3: Identify the Affordable Housing Reduction Rate.** Moderate-income units qualify for a 50% reduction.
- **Step 4: Calculate the Mitigation Reduction Amount.** The Mitigation Reduction is calculated by multiplying the 50% moderate-income reduction times the 20% affordable housing share. 50% times 20% = 10% Mitigation Reduction Amount.
- **Step 5: Calculate the Adjusted Mitigation Rate.** The Adjusted Mitigation Obligation is: 1.50 minus 10% (0.15) = 1.35 Adjusted Mitigation Ratio.

Administration and Administrative Fee

The County Community Development Agency shall be responsible for administration of the Oak Resources Fees, including the calculation and collection of the fees, tracking of deposits, preparation of required reports, annual inflation adjustments, and periodic updates to the Oak Resources In-Lieu Fees Nexus Study. The County also intends to track the location of OWAs purchased with In-Lieu Fee revenues; this effort is expected to require mapping services using Geographic Information Systems (GIS) or similar software. As such, the County will retain the 5% administrative cost portion of the Fee described in this Nexus Study for these purposes.

It is the County's intent to work with one or more Oak Resources LCOs to acquire as well as manage and monitor OWAs, and acquire/plant as well as manage and monitor replacement Heritage Oak Trees, and Native Oak Trees. The County will transfer fee revenues (excluding the 5% administrative cost) to said LCO on a quarterly basis subject to County approval of acquisition, maintenance and monitoring actions.

Annual Inflation Adjustment

An annual adjustment for cost escalations influenced by changes in land values affecting acquisition, conservation easement values, as well as property tax obligations and organizational overhead costs (e.g. rent, wages, benefits, equipment, etc.) shall be applied to the Oak Resources Fees. The Oak Resources Fees shall be subject to an annual inflation fee that accounts for changes in acquisition/planting, Initial M&M, and Long-Term M&M costs.

OWA Fee Adjustment

OWA Acquisition Cost Component

The Acquisition Cost Component of the OWA fee is driven largely by land values within El Dorado County. Over time, land purchased for the express purpose of mitigation may develop a value that is different from land purchased for its development potential. This trend should be monitored over time. This Nexus Study initially recommends that the Acquisition Component of the OWA Fee be consistent with increases in assessed value for the County overall; future updates to the Nexus Study should revisit this measure to determine whether mitigation land purchases are changing at a different rate than assessed value countywide.

Consistent with the 2008 OWMP Fee Study, this Nexus Study recommends that the Acquisition Portion of the OWA In-Lieu Fee be adjusted annually by a three-year average change in assessed valuation countywide for all land uses or for vacant land containing OWAs. The County Assessor's Office can calculate this value each year.

OWA Initial M&M Cost Component

Initial M&M is influenced most heavily by salaries/wages, including staff and consultant costs. Because these costs are driven primarily by staff time, this fee component should

be adjusted based on labor costs. Consistent with the 2008 OWMP Fee Study, this Nexus Study recommends that the Initial M&M Portion of the OWA In-Lieu Fee be adjusted annually based on changes in wages for Forest and Conservation workers (occupation code 45-4011) in California. These wage rates currently track the pay period including the 12th day of May or November, and are published in May of each year (containing data from the previous year). The data can be found here: <http://www.bls.gov/oes/tables.htm>.

OWA Endowment Cost Component (OWA Long-Term M&M)

Long-Term M&M is influenced by two variables: the annual cost of M&M and the interest earnings rate on the Endowment Fund. Both of these variables should be tracked and updated. On an annual basis, the Endowment Component should be adjusted based on any changes in annual M&M costs. Because these costs are driven primarily by staff time, this fee should be adjusted based on labor costs, similar to Initial M&M.

However, changes in annual M&M do not have a 1:1 impact on the Endowment; if, for example, annual M&M costs increase by 10%, the Endowment Fee would need to increase about 12% in order for the Endowment to remain self-sustaining.

As a result, this Nexus Study recommends that the Endowment Cost component be increased annually based on labor wage changes and include an additional 2 percent adjustment for every 10 percent change in wages. **Figure 7.2** provides an example of how this adjustment calculation would work.

7.2 *Endowment Component Fee Adjustment*
OWA In-Lieu Fee

Item	Formula	Oak Woodland Areas		
		0.01 - 50.0% Impact	75.0% Impact	100.0% Impact
Existing Endowment Fee Component	A	\$875	\$875	\$875
Change In Labor Costs (example)	B	4.0%	4.0%	4.0%
Additional Adjustment per 10%	$C = 2\% * (B/10\%)$	0.8%	0.8%	0.8%
Total Adjustment (%)	$D = B + C$	4.8%	4.8%	4.8%
Total Adjustment (amount)	$E = A * D$	\$42	\$42	\$42
Total Adjustment Cost Per Acre [1]	$F = A + E$	\$917	\$917	\$917

Prepared by New Economics & Advisory, May 2015.

[1] Total rounded to nearest whole dollar.

OWA Inflation Adjustment Summary

The OWA In-Lieu Fee would be adjusted annually as follows:

1. Adjust Acquisition Cost Component
2. Adjust Initial M&M Cost Component
3. Adjust Long-Term M&M Cost Component

4. Recalculate Total Cost per Acre (including 5% Administrative Fee component)
5. Recalculate Fees based on Mitigation Ratios

IOT Fee Adjustment

IOT Acquisition/Planting Cost Component

This component of the fee was developed by doubling the identified cost of purchasing a new 15-gallon oak tree; as described in the draft ORMP, this approach reflects a standard industry approach to account for labor costs associated with tree planting. Because acquisition is the primary driver, County staff could check on the price from existing nurseries and recalculate the average cost each year.

IOT Initial M&M Cost Component

This component of the IOT In-Lieu Fee appears to be largely driven by labor costs. This Nexus Study recommends that the Initial M&M Portion of the IOT In-Lieu Fee be adjusted annually based on changes in wages for Forest and Conservation workers (occupation code 45-4011) in California. These wage rates currently track the pay period including the 12th day of May or November, and are published in May of each year (containing data from the previous year). The data can be found here: <http://www.bls.gov/oes/tables.htm>.

IOT Inflation Adjustment Summary

The IOT In-Lieu Fee would be adjusted annually as follows:

1. Adjust Acquisition/Planting Cost Component based on changes in the cost for one 15-gallon oak tree at local nurseries.
2. Adjust Initial M&M Cost Component based on changes in labor wages.
3. Recalculate Total Cost per Acre (including 5% Administrative Fee component)
4. Recalculate Fees based on Mitigation Ratios

Annual Findings/Accounting

The Community Development Agency shall prepare, once each fiscal year for the Board of Supervisors, a report of any portion of Oak Woodland Resources Fees remaining unexpended or uncommitted five or more years after deposit of the Fees, identifying the purpose to which the Fees are to be put, and demonstrating a reasonable relationship between the Fees and the purpose for which they were charged.

Refund of Unexpended Revenues

Except as provided by County Code, the County shall refund to the then current record owner or owners of each unit of development on a prorated basis the unexpended or uncommitted portion of the Oak Resources Fees, and any interest accrued thereon, for which need cannot be demonstrated.

Such refund of unexpended or uncommitted revenues may be made by direct payment from the applicable trust fund, by providing a temporary suspension of fees, or by any other means consistent with the intent of Government Code Section 66001.

Reallocation of Remaining Revenues

If the administrative costs of refunding unexpended or uncommitted revenues exceed the amount to be refunded, the County, after a public hearing, notice of which has been published under Government Code Section 6061 and posted in three prominent places within the area of the development project, may determine that the revenues shall be allocated for some other purpose for which fees are collected subject to Section 66000 of the Government Code.

Other Periodic Reviews and 5-Year Updates

As El Dorado County's Oak Resources In-Lieu Fees are implemented, the County will be able to track actual costs related to direct acquisition, conservation easements, overhead, wages, and management and monitoring costs. As such, this Nexus Study should be considered a living document that will need to be updated as new information becomes available and key assumptions can be appropriately refined. Periodically, the real estate market and broader economy undergoes more dramatic changes in land, and/or construction labor costs. The County may conduct additional periodic review at any time to determine if costs and/or fees require further adjustments. These periodic and/or 5-year update reviews could include changes to the following assumptions:

- Land acquisition values for mitigation land
- Conservation Easement values for mitigation land
- The proportion of Conservation Easements versus direct acquisition of conservation land
- Initial Annual M&M costs
- Long-Term Annual M&M costs
- Endowment interest earnings rate
- Annual adjustment procedures and assumptions
- IOT acquisition and planting costs

Beginning with the fifth fiscal year following the first deposit into the fee account or fund, and every five years thereafter, El Dorado County is required to make certain findings pertaining to unexpended balances. The required findings include:

1. Identifying the purpose for which the fee is to be used.
2. Demonstrating a reasonable relationship between the fee and its purported purpose.
3. All sources and amounts of funding anticipated to complete financing in incomplete plan area improvements.
4. Recalculate/recalculate annual adjustment factor.

5. For any unexpended or uncommitted revenues El Dorado County cannot demonstrate a need based on the four findings described above, El Dorado County must refund such revenues, unless the administrative costs exceed the amount of the refund.

Appendix A: Supporting Calculations for OWA Conservation

A1 *Individual Vacant Land Comparables*
El Dorado County, 2004-2014

APN	Subdivision/Tract	Oak Woodland ID [1]	Zoning	Total Acres [1]	Oak Woodland Areas		Sale Date	Sale Price	Sales Price Per Acre	
					OWA Acres	% of Total Acres				
RE-10 Zoning										
046-720-06-100	[2] River Pines Est. #4	7	RE-10	22.24	0.223720	1.01%	8/18/04	\$249,950	\$11,239	
046-720-11-100	River Pines Est. #4	7	RE-10	70.85	60.022561	84.72%	6/29/12	\$145,000	\$2,047	
046-720-06-100	[2] River Pines Est. #4	7	RE-10	22.24	0.223720	1.01%	1/8/14	\$165,000	\$7,419	
104-481-07-100	Pilot Hill Crossing	19	RE-10	12.55	0.000012	0.00%	7/12/12	\$50,000	\$3,984	
046-710-19-100	River Pines Est. #3	6	RE-10	13.59	0.000115	0.00%	5/21/13	\$125,000	\$9,198	
046-720-04-100	River Pines Est. #4	6	RE-10	32.96	0.000148	0.00%	8/14/07	\$385,000	\$11,681	
Weighted Average									\$6,421	
RE-2 Zoning										
092-301-06-100	[2] Golden West Par #5	9	R2A	2.88	0.000001	0.00%	4/30/04	\$185,000	\$64,256	
092-301-06-100	[2] Golden West Par #5	9	R2A	2.88	0.000001	0.00%	5/25/05	\$265,000	\$92,042	
092-301-06-100	[2] Golden West Par #5	9	R2A	2.88	0.000001	0.00%	2/6/08	\$226,200	\$78,565	
092-293-11-100	Golden West Par #5	9	R2A	2.51	0.000024	0.00%	7/23/14	\$90,000	\$35,796	
Weighted Average									\$68,708	

Prepared by New Economics & Advisory, May 2015.

[1] Oak Woodland ID identifies woodland areas that cross a parcel to identify all parcels within the same cluster area.

[1] Acres are calculated from GIS basemap polygons or property data collected from recorded maps or other means.

[2] Parcel has been bought and sold multiple times.

Source: El Dorado County staff, March 2015.

A2.1 *American River Conservancy Recent Direct Land Acquisitions*
2013-2015

Item	El Dorado Ranch		El Dorado Ranch		Pending (Sierra Crest) Property		Cronan Ranch		Current Estimate: Sierra Hills Area
	Amount	Per Acre	Amount	Per Acre	Amount	Per Acre	Amount	Per Acre	Per Acre
Acres	1,059		1,080		10,000				NA
Land Acquisitions	2013\$		2014\$		2015\$		2001\$		
Purchase Price	\$4,800,000		\$4,995,000		\$10,230,000				NA
Other Costs	N/A		\$205,000	[1]					
Subtotal Land Acquisitions	\$4,800,000	\$4,533	\$5,200,000	\$4,815	\$10,230,000	\$1,023	NA	\$6,107	\$5,000
Average Applied in This Analysis [2]									\$5,400

Prepared by New Economics & Advisory, June 2015.

Source: ARC Staff, June 2015.

[1] Amount represents a donation made by the seller.

[2] A weighted average calculation would not be appropriate for ARC because a large recent purchase was made that would skew the result. Therefore, New Economics applied a straight average calculation to derive an average for this organization. Figure rounded to nearest hundred dollars.

A2.2

**American River Conservancy Recent Conservation Easements
2001**

Item	Garibaldi Ranch		Current Estimate of CE as a % of Acq. Price
	Amount	Per Acre	
Acres	1,178		
Conservation Easements	2001\$		
Purchase Price	\$1,767,123		
Other Costs (Cont. to Endowment)	\$100,000	<u>CE</u>	
Subtotal Conservation Easements	\$1,867,123	\$1,585	50% [1]
Value Used in This Analysis			

Prepared by New Economics & Advisory, June 2015.

Source: ARC staff, June 2015.

[1] ARC staff reports that CEs typically cost about half as much as direct acquisition. The CE value should be associated with the value of grazing and/or tree harvesting, which is much lower than 50% and would result in a CE that is around 75-80% of gross land value. However, many CE parcels are less desirable to begin with or

A2.3 *ARC M&M Costs*
2015\$

<u>Expenditure</u>	<u>Cost per Acre [1]</u>
Management & Monitoring	\$40.00

Prepared by New Economics & Advisory, May 2015.
[1] Range of \$35-40 per acre provided by ARC staff. Reflects average cost for undeveloped oak woodland of a ranch size (1,000 acres+). Includes 15-20% overhead costs. Actual M&M costs vary and can be more expensive for smaller properties and/or properties that are in urban areas and/or have recreational access.

Source: ARC staff, June 2015.

A3.1 *Placer Land Trust Recent Property Acquisitions*
2010-2012

Expenditure	Outman Big Hill		Bruin Ranch/Harvego	
	Amount	Per Acre	Amount	Per Acre
Recent Land Acquisitions	2012\$		2010\$	
Acres	80		1,773	1,853
Purchase Price	\$475,000	\$5,938	\$9,500,000	\$5,358
Legal Fees	\$1,100	\$14	N/A	N/A
Appraisal	\$5,303	\$66	N/A	N/A
Title Insurance & Escrow Fees	\$684	\$9	\$1,482	\$1
Staff & Admin	\$10,363	\$130	\$250,482	\$141
Subtotal Recent Land Acquisitions	\$492,450	\$6,156	\$9,751,964	\$5,500
Rounded Weighted Average Recent Land Acquisitions				\$5,500
Stewardship Fund Contribution			2010\$	
Acres			1,773	
Stewardship Contribution			\$500,000	
Subtotal Stewardship			\$500,000	\$282
Endowment Contribution			2010\$	
Acres			1,773	
Endowment Contribution			\$25,000	
Legal Funds			N/A	
Subtotal Endowment			\$25,000	\$14

Prepared by New Economics & Advisory, May 2015.

Source: Placer Land Trust staff, April-May 2015.

A3.3 *Placer Land Trust Estimated M&M costs*
2015\$

Expenditure	Total Cost	Metric	Acres	Cost Per Acre
Annual Management & Monitoring Examples				
Outman Preserve	\$2,375	For entire property.	80	\$29.69
Harvego Reserve/Bruin Ranch	\$60,000	Annual M&M estimate.	1,773	\$33.84
Wakamatsu Tea & Silk Colony	\$10,000	Annual M&M estimate.	272	\$36.76
Big Gun Preserve	\$2,500	\$2,000 -\$3,000 annually.	52	\$48.08
Weighted Average Cost				\$34.39
Other Annual Costs				
Overhead	15%	Typically applied to M&M contract costs. Applied to M&M Weighted Average Cost.		\$5.16
Field Equipment	\$5,000	Per year for Harvego Reserve.	1,773	\$2.82
Periodic Surveys, Aerial Photos	N/A	Not specifically performed yet on Oak Woodland properties.		N/A
Subtotal Other Annual Costs				\$7.98
Subtotal Annual Management & Monitoring				\$42.37

Prepared by New Economics & Advisory, May 2015.

Source: PLT Staff, April - June 2015.

A4 *Placer County Conservation Plan (PCCP) Projected Costs*
2015\$

Expenditure	Amount	Metric	Cost Per Acre
One-Time Activities (Year 0) [1]			
County Field Facilities Contribution [2]	\$500,000	Spread over 48,250 acres at end of 50-years.	\$10.36
Oak Woodland Fuels Treatment	\$1,800	Initial One-Time Cost per acre.	\$1,800.00
Maintaining New Plantings [3]	\$20,000	per 100-acre project over a 3-yr. period	\$200.00
Subtotal One-Time Activities Inflated to 2015\$			\$2,010.36 \$2,104.22
Annual Management & Monitoring			
Mgmt. Equip. & Materials	\$3,000	Cost per 1,000 acres.	\$3.00
On-going Site Maintenance	\$10,000	Cost per 1,000 acres.	\$10.00
Wildlife Management	\$1,000	Cost per 1,000 acres.	\$1.00
Oak Woodland Fuels Treatment	\$1,000	Interval treatment every 5 years (\$1,000 every 5 years per 1,000 acres).	\$0.20
Field Facilities Maint. & Utilities	\$10,000	Annual cost spread over 48,250 acres.	\$0.21
Staffing Cost	\$50,000	(1/3-1/2 time position)	\$1.04
Reserve Mgmt. Plan Updates	\$40,000	Every 5 years (2 total plans)	\$0.17
Subtotal Annual Management & Monitoring Inflated to 2015\$			\$15.61 \$16.34
Other Data Points			
Case Study Restoration Costs [3]	\$43,000	per 100-acre project	\$430.00
Total Estimated Cost over 50-yr permit period		Cost estimate ranges from \$3,000 to \$30,000 per acre	\$13,500

Prepared by New Economics & Advisory, May 2015.

Source: Woodland Restoration Potential: Placer County Conservation Plan, Richard R. Harris, Ph.D., February 2013.

[1] Reflects cost of one-time activities conducted shortly after undertaking management and monitoring responsibilities.

[2] This estimated cost is currently anticipated by Placer County for purposes of developing the Placer County Conservation Plan (PCCP). New Economics has integrated this cost into Initial M&M.

[3] From Attachment A of PCCP Woodland Restoration Report. Estimated Oak Woodland Restoration Notes by Riley Swift.

A5.1 *Sempervirens Fund Recent Acquisitions*
Nominal Dollars, 2012-2014

Expenditure	Amount	Acres	Cost per Acre
Recent Land Acquisitions	<u>2012</u>		
Gallaway	\$378,000	89	\$4,247
	<u>2013</u>		
Butano & Waterman Creek	\$870,000	80	\$10,875
Lachnbrauch	\$500,000	76	\$6,579
Redwood Meadows	\$525,000	151	\$3,477
	<u>2014</u>		
Van Kempen	\$650,000	33	\$19,697
Weighted Average Acquisitions			\$6,814
Related Acquisition Costs [1]	\$838,885	429	\$2,073
Subtotal Recent Land Acquisitions			\$8,886
Recent Conservation Easements	2013\$		
Redwood Meadows	\$525,000	151	\$3,477
Average Conservation Easement as a % of Average Acquisition [2]			56%

Prepared by New Economics & Advisory, May 2015.

Source: Sempervirens Fund Audited Financial Statements, June 30, 2014, and staff.

[1] Reflects 70% of General and Administration Costs from Financial Statement spread across 398 acres acquired in the same year to determine per-acre amount.

[2] Reflects 2013\$ land acquisitions and conservation easements.

A5.2 *Sempervirens Fund M&M Trends*
2015\$

Financial Statement Ending 06/30/2014

Expenditure	Stewardship	Total General & Admin	General & Admin Portion [1]	Total Cost	Metric	Cost per Acre [2]
Annual Management & Monitoring						
Salaries	\$99,223	\$219,309	\$65,793	\$165,016	Lump Sum	\$15.40
Payroll Taxes & Benefits	\$20,552	\$43,097	\$12,929	\$33,481	Lump Sum	\$3.13
Other Outside Services	\$86,039	\$21,957	\$6,587	\$92,626	Lump Sum	\$8.65
IT Services	\$4,509	\$11,070	\$3,321	\$7,830	Lump Sum	\$0.73
Office Expenses	\$5,622	\$16,823	\$5,047	\$10,669	Lump Sum	\$1.00
Occupancy Expenses	\$16,037	\$35,763	\$10,729	\$26,766	Lump Sum	\$2.50
Printing, Postage & Direct Mail	\$2,323	\$12,418	\$3,725	\$6,048	Lump Sum	\$0.56
Legal and Accounting	\$1,273	\$36,121	\$10,836	\$12,109	Lump Sum	\$1.13
Insurance	\$808	\$26,381	\$7,914	\$8,722	Lump Sum	\$0.81
Travel, Training, Meetings & Ent.	\$5,788	\$16,771	\$5,031	\$10,819	Lump Sum	\$1.01
Government Fees	\$183	\$549	\$165	\$348	Lump Sum	\$0.03
Subtotal Annual Management & Monitoring						\$34.95
Inflated to 2015\$						\$35.76

Prepared by New Economics & Advisory, May 2015.

[1] Stewardship Costs account for approximately 30% of Total Annual Costs (net of Admin). This analysis applies 30% of General and Administrative costs as a preliminary estimate of proportionate administrative costs. Subject to further refinement.

[2] Costs are spread over 10,713 acres of redwood forests and forest land actively managed by Sempervirens.

Source: Sempervirens Fund Audited Financial Statements, June 30, 2014, and staff.

A6 *Sacramento Tree Foundation M&M Trends*
2015\$

Financial Statement Ending 06/30/2013

Expenditure	Mitigation Amount	Total Gen. & Admin.	Adj. Gen. & Admin. [1]	Total Cost	Metric	Cost per Acre [2]
Annual Management & Monitoring						
Trees, Materials & Land Use Fees	\$6,140	\$2,116	\$275	\$6,415	Lump Sum	\$214
Salaries, Benefits & Taxes	\$193,847	\$141,376	\$18,379	\$212,226	Lump Sum	\$7,074
Professional Services	\$3,132	\$21,427	\$2,786	\$5,918	Lump Sum	\$197
Marketing	\$220	\$2,550	\$332	\$552	Lump Sum	\$18
Rent & Utilities	\$11,513	\$25,602	\$3,328	\$14,841	Lump Sum	\$495
Vehicles	\$15,787	\$159	\$21	\$15,808	Lump Sum	\$527
Depreciation	\$7,087	\$5,169	\$672	\$7,759	Lump Sum	\$259
Computer Services	\$1,433	\$2,577	\$335	\$1,768	Lump Sum	\$59
Equipment Costs	\$6,061	\$5,179	\$673	\$6,734	Lump Sum	\$224
Postage, Freight & Printing	\$923	\$2,408	\$313	\$1,236	Lump Sum	\$41
Meeting & Conferences	\$570	\$10,970	\$1,426	\$1,996	Lump Sum	\$67
Insurance	\$856	\$640	\$83	\$939	Lump Sum	\$31
Office Supplies	\$638	\$930	\$121	\$759	Lump Sum	\$25
Staff Development	\$840	\$3,028	\$394	\$1,234	Lump Sum	\$41
Miscellaneous	\$551	\$1,920	\$250	\$801	Lump Sum	\$27
Subtotal Annual Management & Monitoring				\$226,051		\$9,299
Inflated to 2015\$						\$9,734

Prepared by New Economics & Advisory, May 2015.

[1] Amount includes Mitigation Program Costs and 13% of Administrative Costs as a preliminary estimate of proportionate administrative costs. Subject to further refinement.

[2] In 2014, STF planted and cared for 4,450 trees. At about 150 trees per acre, STF estimates 30 acres of land under management.

Source: Sacramento Tree Foundation Financial Statements, June 30, 2013.

A7.1 *Sierra Foothill Conservancy Recent Direct Land Acquisitions*
Nominal Dollars (2012)

Item	Martin Preserve		Miller Preserve	
	Amount [1]	Amount per Acre	Amount	Amount per Acre
Recent Land Acquisitions	2012\$		2012\$	
Acres	280		2,011	2,291
Purchase Price	\$1,021,100	\$3,647	\$1,230,000	\$612
Subtotal Recent Land Acquisitions		\$3,647		\$612
Weighted Average Recent Land Acquisitions				\$1,000

Prepared by New Economics & Advisory, May 2015.

Sources: Consolidated Financial Statements and Additional Information for FY 2012/13 and 2011/12, and Sierra Foothill Conservancy staff.

[1] This transaction also include \$280,507 in Stewardship Fund contribution; however, this amount is excluded because it is intended to fund M&M.

A7.2

SFC - Recent Easements & Contributions
2008-2014 (nominal dollars)

Item	2008-2014		
	Amount	Acres	Per Acre
Conservation Easements (CE)			
		<u>2008</u>	
Bohna	\$1,000,000	840	\$1,190
Trabucco	\$300,000	524	\$573
		<u>2012</u>	
San Joaquin River Corridor	\$820,000	1,390	\$590
Wild Life Conservation Board	\$280,000	680	\$412
		<u>2010</u>	
Millar Ranch	\$1,850,000	2,990	\$619
		<u>2011</u>	
Pt. Millerton Ranch	\$125,000	200	\$625
		<u>2014</u>	
Hendrick	\$440,000	324	\$1,358
		<u>2012\$</u>	
Martin Preserve-- Stewardship Fund Contribution Only	\$280,507	280	\$1,002
Rounded Weighted Average Recent CE Cost			\$700
Average Conservation Easement as a % of Average Acquisition [1]			70%

Prepared by New Economics & Advisory, May 2015.

[1] Based on 2013\$ land acquisitions and rounded weighted average of conservation easements (2008-2014).

Sources: Consolidated Financial Statements and Additional Information for FY 2012/13; and Sierra Foothill Conservancy staff, May 2015.

A7.3

**Sierra Foothill Conservancy M&M Trends
2015\$**

Financial Statement Ending 06/30/2013

Expenditure	Program Services	General & Admin.	Total Cost [1]	Metric	Cost per Acre [2]
Management & Maintenance					
Management Fee	N/A	\$27,635	\$27,635	Lump Sum	\$4.26
Outside Services	\$62,699	N/A	\$62,699	Lump Sum	\$9.67
Repairs & Maintenance	N/A	\$19,842	\$19,842	Lump Sum	\$3.06
Salaries & Wages	\$228,654	\$55,619	\$284,273	Lump Sum	\$43.86
Payroll Taxes	\$22,177	\$5,394	\$27,571	Lump Sum	\$4.25
Employee Benefits	\$5,304	\$1,290	\$6,594	Lump Sum	\$1.02
Advertising & Promotions	N/A	\$942	\$942	Lump Sum	\$0.15
Auto Expenses	\$12,325	\$8,084	\$20,409	Lump Sum	\$3.15
Bank & Finance Charges	N/A	\$1,936	\$1,936	Lump Sum	\$0.30
Conference Expenses	\$422	\$3,603	\$4,025	Lump Sum	\$0.62
Dues & Subscriptions	N/A	\$6,373	\$6,373	Lump Sum	\$0.98
Insurance	\$3,775	\$24,198	\$27,973	Lump Sum	\$4.32
Interest	N/A	\$20,179	\$20,179	Lump Sum	\$3.11
Loss on Disposition of Assets	N/A	\$4,979	\$4,979	Lump Sum	\$0.77
Member Events	\$1,242	N/A	\$1,242	Lump Sum	\$0.19
Miscellaneous	\$260	\$3,517	\$3,777	Lump Sum	\$0.58
Office Expenses	\$4,004	\$6,369	\$10,373	Lump Sum	\$1.60
Postage & Delivery	\$282	\$1,314	\$1,596	Lump Sum	\$0.25
Printing & Copying	\$3,315	\$863	\$4,178	Lump Sum	\$0.64
Professional Fees	\$30,634	\$8,459	\$39,093	Lump Sum	\$6.03
Property Taxes	\$9,282	N/A	\$9,282	Lump Sum	\$1.43
Rent & Related	\$15,226	\$3,704	\$18,930	Lump Sum	\$2.92
Taxes & Licenses	N/A	\$232	\$232	Lump Sum	\$0.04
Travel	\$964	\$2,322	\$3,286	Lump Sum	\$0.51
Utilities	\$13,288	\$3,232	\$16,520	Lump Sum	\$2.55
Subtotal Management & Monitoring			\$623,939		\$96.27
Inflated to 2015\$					\$100.77

Prepared by New Economics & Advisory, May 2015.

[1] Figures include costs associated with Program Services and General & Administration.

[2] SFC actively manages only the land owned in fee title. Costs are spread over 6,481 acres of nature preserves actively managed by SFC.

Source: Consolidated Financial Statements and Additional Information for FY 2012/13 and 2011/12, and SFC staff.

A8.1

**Save the Redwoods League Recent Acquisitions
2012-2014**

Expenditure	Amount	Cost per Acre	Amount	Cost per Acre
Recent Land Acquisitions	2013\$		2014\$	
Acres	125		33	158
Purchase Price	\$2,000,000	\$16,000	\$650,000	\$19,697
Weighted Average Cost				\$16,772
Recent Conservation Easements (CE)	2014\$		2012\$	
Acres	22,986		378	
Purchase Price	\$16,900,000	\$735	\$300,000 [1]	\$794
Appraisals & Environmental [2]	\$364,362	\$16	\$310,745	\$822
Legal Fees [2]	\$16,435	\$1	\$113,511	\$300
Subtotal CE Acquisition		\$752		\$1,916
Weighted Average Cost				\$771

Average Conservation Easement as a % of Average Acquisition Cost **5%**

Prepared by New Economics & Advisory, May 2015.

[1] Donation.

[2] New Economics assumed that these costs, included in both Program Services and General and Administrative Cost categories were predominantly associated with acquisition activities. Subject to further refinement pending additional feedback from SRL staff.

Sources: Save the Redwoods League Financial Statements, March 31, 2014 and 2013; Save the Redwoods League 2014 Annual Report, and Save the Redwoods League staff.

A8.2

Save the Redwoods League M&M Trends
2015\$

Financial Statements 03/14/2014

Expenditure	Program Services	Total		Adjusted General & Admin [1]	Total Cost [1]	Metric	Cost per Acre [2]
		General & Admin	General & Admin				
Management & Monitoring							
Other Project Costs	\$353,504			N/A	\$353,504	Lump Sum	\$24.46
Equip. Rental & Maint.	\$7,094	\$6,743		\$4,720	\$11,814	Lump Sum	\$0.82
Salaries & Benefits	\$1,658,517	\$837,483		\$586,238	\$2,244,755	Lump Sum	\$155.30
Payroll taxes	\$103,922	\$52,476		\$36,733	\$140,655	Lump Sum	\$9.73
Printing & Publications	\$121,945	\$11,909		\$8,336	\$130,281	Lump Sum	\$9.01
Services & Fees	\$110,183	\$299,548		\$209,684	\$319,867	Lump Sum	\$22.13
Occupancy	\$168,770	\$92,539		\$64,777	\$233,547	Lump Sum	\$16.16
Consultants	\$240,281	N/A		N/A	\$240,281	Lump Sum	\$16.62
Conferences and Meetin	\$53,657	\$43,430		\$30,401	\$84,058	Lump Sum	\$5.82
Travel	\$62,009	\$25,189		\$17,632	\$79,641	Lump Sum	\$5.51
Investment Fees	N/A	\$137,153		\$96,007	\$0	Lump Sum	\$0.00
Miscellaneous Expenses	\$29,746	\$30,665		\$21,466	\$51,212	Lump Sum	\$3.54
Accounting Fees	N/A	\$49,715		\$34,801	\$34,801	Lump Sum	\$2.41
Postage & Shipping	\$9,616	\$21,297		\$14,908	\$24,524	Lump Sum	\$1.70
Furniture & Equipment	\$18,669	\$10,980		\$7,686	\$26,355	Lump Sum	\$1.82
Insurance	\$18,867	\$10,345		\$7,242	\$26,109	Lump Sum	\$1.81
Supplies	\$15,822	\$6,206		\$4,344	\$20,166	Lump Sum	\$1.40
Telephone	\$12,482	\$7,627		\$5,339	\$17,821	Lump Sum	\$1.23
Subtotal Management & Monitoring							\$279.47
Inflated to 2015\$							\$273.45

Prepared by New Economics & Advisory, May 2015.

[1] Amount includes Program Services Costs and 70% of General and Administrative Costs as a preliminary estimate of proportionate administrative costs. Subject to further refinement.

[2] Cost are spread over 14,454 acres of forests and surrounding land actively managed by SRL.

Source: Save the Redwoods League Financial Statements, March 31, 2014; Save the Redwoods League 2014 Annual Report; and SRL staff.

A9.1

**Sacramento Valley Conservancy Recent Acquisitions
 Deer Creek Hills (2003\$)**

Expenditure	Amount	Cost per Acre
Recent Land Acquisition	2003\$	
Acres [1]	4,062	
Acquisition Costs	\$11,422,400	\$2,812
Subtotal Recent Land Acquisition	\$11,422,400	\$2,812

Prepared by New Economics & Advisory, May 2015.

[1] Owned and managed acres per Deer Creek Hills Preserves Master Plan, July 2008.

Source: Deer Creek Hills Preserve Master Plan, 2008; SVC website; and SVC staff.

A9.2

Sacramento Valley Conservancy M&M Trends
Deer Creek Hills, 2015\$

Expenditure	Amount	Metric	Cost per Acre [1]
Annual Management & Monitoring			
Property Tax & Management Costs [2]	\$55,844	Lump Sum	\$13.75
Payroll	\$50,986	Lump Sum	\$12.55
Payroll Taxes	\$3,890	Lump Sum	\$0.96
Employee Benefits	\$71	Lump Sum	\$0.02
Travel & Meetings	\$735	Lump Sum	\$0.18
Occupancy	\$1,012	Lump Sum	\$0.25
Postage & Delivery	\$31	Lump Sum	\$0.01
Phone & Internet	\$3,118	Lump Sum	\$0.77
Office Expense	\$195	Lump Sum	\$0.05
Payroll Services	\$838	Lump Sum	\$0.21
Insurance	\$7,552	Lump Sum	\$1.86
Taxes & Licenses	\$1,213	Lump Sum	\$0.30
General Admin Overhead [3]	\$29,435	Lump Sum	\$7.25
Subtotal Administrative Expenses	\$154,922		\$38.14
Inflated to 2015\$			\$37.32

Prepared by New Economics & Advisory, May 2015.

[1] Costs are spread over 4,062 acres of Deer Creek Hills Preserve actively managed by SVC.

[2] Includes weed management, trash management, grazing management, property repairs, management licensing agreements, and training.

[3] General overhead and administrative cost estimated at 19% of overall budget per SVC staff.

Source: Deer Creek Hills Preserve Master Plan, 2008; and Sacramento Valley Conservancy staff, May 2015.

Appendix B: Supporting Calculations for Endowment Fee Component

B1

Endowment Fund Annual Rate of Return Research
Nominal Rates

Item	Year	Source	Rate of Return
National Association of College and University Business Officers (NACUBO)			
(Net Return) [1]			
Endowments Under \$25 Million	2009		3.90%
Endowments Under \$25 Million	2010		2.80%
Endowments Under \$25 Million	2011		4.90%
Endowments Under \$25 Million	2012		5.70%
	Average		4.33%
Other Habitat Fee Studies (Nominal Rates)			
Natomas Basin Conservancy	2013	EPS/ NBC	3.00%
Santa Clara Valley Habitat Plan Development Fee Nexus Study	2012	Willdan	3.25%
El Dorado Oak Woodland	2008	El Dorado County	6.00%
El Dorado County Ecological Preserve Fee Estimate	1998	EPS	6.00%
	Average		4.56%

Prepared by New Economics & Advisory, May 2015.

[1] NACUBO 10-year total net return for US Higher Education endowments and Affiliated Foundations, for Endowments under \$25 million.

Sources: Individual Habitat Management Organizations, Fee Nexus Studies, and NACUBO Common Fund Study of Endowments 2009-2012.

B2 *Endowment Cash Flow Projections (2015\$ constant dollars)*
6.0% annually

Item	Assumption	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Habitat Acres Maintained		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Annual Maintenance Cost	\$41 per acre	\$41	\$41	\$41	\$41	\$41	\$41	\$41	\$41	\$41	\$41
Portion Prepaid by Initial M&M Fee Component [1]		\$41	\$41	\$41	\$41	\$41	\$0	\$0	\$0	\$0	\$0
Remaining Annual Maintenance Cost	\$41 per acre	\$0	\$0	\$0	\$0	\$0	\$41	\$41	\$41	\$41	\$41
Endowment Fund											
Opening Balance		\$0	\$550	\$583	\$618	\$655	\$694	\$695	\$697	\$698	\$699
Interest Earnings [2]	6.0% annually	\$0	\$33	\$35	\$37	\$39	\$42	\$42	\$42	\$42	\$42
New Fee Revenue Available	\$550 per acre	\$550	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Balance		\$550	\$583	\$618	\$655	\$694	\$736	\$737	\$738	\$740	\$741
Amount Applied Toward O&M Cost		\$0	\$0	\$0	\$0	\$0	\$41	\$41	\$41	\$41	\$41
Closing Balance		\$550	\$583	\$618	\$655	\$694	\$695	\$697	\$698	\$699	\$701

Prepared by New Economics & Advisory, May 2015.

[1] This amount is to be provided by developers up-front to fund 5 years of maintenance.

[2] Interest earnings are applied to previous year's ending balance.

B3 *Endowment Cash Flow Projections (2015\$ constant dollars)*
3.0% annually

Item	Assumption	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Habitat Acres Maintained		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Annual Maintenance Cost	\$41 per acre	\$41	\$41	\$41	\$41	\$41	\$41	\$41	\$41	\$41	\$41
Portion Prepaid by Initial M&M Fee Component [1]		\$41	\$41	\$41	\$41	\$41	\$0	\$0	\$0	\$0	\$0
Remaining Annual Maintenance Cost	\$41 per acre	\$0	\$0	\$0	\$0	\$0	\$41	\$41	\$41	\$41	\$41
Endowment Fund											
Opening Balance		\$0	\$1,250	\$1,288	\$1,326	\$1,366	\$1,407	\$1,409	\$1,410	\$1,412	\$1,414
Interest Earnings [2]	3.0% annually	\$0	\$38	\$39	\$40	\$41	\$42	\$42	\$42	\$42	\$42
New Fee Revenue Available	\$1,250 per acre	\$1,250	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Balance		\$1,250	\$1,288	\$1,326	\$1,366	\$1,407	\$1,449	\$1,451	\$1,453	\$1,454	\$1,456
Amount Applied Toward O&M Cost		\$0	\$0	\$0	\$0	\$0	\$41	\$41	\$41	\$41	\$41
Closing Balance		\$1,250	\$1,288	\$1,326	\$1,366	\$1,407	\$1,409	\$1,410	\$1,412	\$1,414	\$1,416

Prepared by New Economics & Advisory, May 2015.

[1] This amount is to be provided by developers up-front to fund 5 years of maintenance.

[2] Interest earnings are applied to previous year's ending balance.

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Attachment B:

**Revised Draft General Plan Biological Resources
Policies, clean**



EL DORADO COUNTY GENERAL PLAN CONSERVATION AND OPEN SPACE ELEMENT

PRINCIPLE

Consistent with the objectives, goals, and policies set forth in the Land Use Element, the Plan must conserve and improve the County's existing natural resources and open space, including agricultural and forest soils, mineral deposits, water and native plants, fish, wildlife species and habitat, and federally classified wilderness areas; and preserve resources of significant biological, ecological, historical or cultural importance.

INTRODUCTION

The purpose of the Conservation and Open Space Element of the General Plan is to address the management, preservation, and conservation of natural resources and open space of El Dorado County. Management of the County's resources will assure the availability of those resources to future generations and the realization of their full economic potential.

Pursuant to Government Code Section 65302, both a conservation and an open space element must be included in a general plan. The General Plan combines these two elements into the Conservation and Open Space Element and as such satisfies the legal requirements for the Conservation and Open Space Elements defined in the Government Code, Sections 65302(d) and 65560, respectively.

RELATIONSHIP TO OTHER ELEMENTS

This element contains provisions for the conservation and protection of soils, minerals, water, wildlife and fisheries, vegetation, cultural resources, and open space. The issues of this element are closely linked to those of almost all other elements of this General Plan. The intensity of development and issues of land use compatibility relating to resource protection and/or production are discussed in the Land Use, Agriculture and Forestry, and Parks and Recreation Elements.

Natural resources and soil preservation are also discussed in the Agriculture and Forestry Element. The Agriculture and Forestry Element focuses primarily on conservation of

agricultural lands and timber forest lands and identifies the types of uses which are compatible with resource utilization.

Measures necessary for the protection of life and property, as well as ecological values, are also discussed in the Public Health, Safety, and Noise Element.

The Parks and Recreation Element discusses the provision and maintenance of parks, recreation facilities, and trails to serve El Dorado County while the Conservation and Open Space Element deals with the conservation of open space for outdoor recreation.

The Public Services and Utilities Element discusses the conservation of reusable resources and land by recycling and waste management techniques.

ORGANIZATION OF THE ELEMENT

The Conservation and Open Space Element discusses significant natural resources including geology and soils, extractive minerals, water, biological resources, cultural resources, and open space resources. Goals, objectives, and policies are included in this element for each of the topics listed.

POLICY SECTION

SOIL CONSERVATION

GOAL 7.1: SOIL CONSERVATION

Conserve and protect the County’s soil resources.
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OBJECTIVE 7.1.1: SOILS

Long-term soil productivity.

Policy 7.1.1.1 Conserve and maintain important agricultural soils for existing and potential agricultural and forest uses by limiting non-agricultural/non-forestry development on those soils.

OBJECTIVE 7.1.2: EROSION/SEDIMENTATION

Minimize soil erosion and sedimentation.

Policy 7.1.2.1 Development or disturbance shall be prohibited on slopes exceeding 30 percent unless necessary for access. The County may consider and allow development or disturbance on slopes 30 percent and greater when:

- Reasonable use of the property would otherwise be denied.

- The project is necessary for the repair of existing infrastructure to avoid and mitigate hazards to the public, as determined by a California registered civil engineer or a registered engineering geologist.
- Replacement or repair of existing structures would occur in substantially the same footprint.
- The use is a horticultural or grazing use that utilizes “best management practices (BMPs)” recommended by the County Agricultural Commission and adopted by the Board of Supervisors.

Access corridors on slopes 30 percent and greater shall have a site specific review of soil type, vegetation, drainage contour, and site placement to encourage proper site selection and mitigation. Septic systems may only be located on slopes under 30 percent. Roads needed to complete circulation/access and for emergency access may be constructed on such cross slopes if all other standards are met.

- Policy 7.1.2.2 Discretionary and ministerial projects that require earthwork and grading, including cut and fill for roads, shall be required to minimize erosion and sedimentation, conform to natural contours, maintain natural drainage patterns, minimize impervious surfaces, and maximize the retention of natural vegetation. Specific standards for minimizing erosion and sedimentation shall be incorporated into the Zoning Ordinance.
- Policy 7.1.2.3 Enforce Grading Ordinance provisions for erosion control on all development projects and adopt provisions for ongoing, applicant-funded monitoring of project grading.
- Policy 7.1.2.4 Cooperate with and encourage the activities of the three Resource Conservation Districts in identifying critical soil erosion problems and pursuing funding sources to resolve such problems.
- Policy 7.1.2.5 The Department of Transportation, in conjunction with the Resource Conservation Districts and Soil Conservation District, shall develop a road-side maintenance program to manage roads in a manner that maintains drainage and protects surface waters while reducing road-side weed problems.
- Policy 7.1.2.6 The County shall encourage the Soil Conservation Service to update the 1974 Soil Survey and to digitize all soils mapping units on the Geographic Information System (GIS).
- Policy 7.1.2.7 The County shall require agricultural grading activities that convert one acre or more of undisturbed vegetation to agricultural cropland to obtain an agricultural permit through the Agricultural Commissioner’s office which may require approval of the Agricultural Commission. All erosion control measures included in the agricultural permit would be

implemented. All agricultural practices, including fuel reduction and fire protection, that do not change the natural contour of the land and that use “best management practices” as recommended by the County Agricultural Commission and adopted by the Board of Supervisors shall be exempt from this policy.

CONSERVATION OF MINERAL RESOURCES

GOAL 7.2: MINERAL RESOURCES

Conservation of the County’s significant mineral deposits.

OBJECTIVE 7.2.1: IDENTIFY MINERAL RESOURCES

Identification of the County’s important mineral resources.

Policy 7.2.1.1 In accordance with California Code of Regulations, Sections 3675-3676, the County shall maintain all Mineral Land Classification reports produced by the State Department of Conservation, California Geological Survey, which pertain to El Dorado County. El Dorado County hereby recognizes, accepts, and adopts by reference those State Classification Reports as they currently exist and as may be amended, or supplemented, in the future. These reports are as follows:

1. Kohler, S.L. 1983. Mineral Land Classification of the Georgetown 15' Quadrangle, El Dorado, and Placer Counties, California. Open File Report 83-35. Prepared for the California Department of Conservation.
2. Kohler, S.L. 1984. Mineral Land Classification of the Auburn 15' Quadrangle, El Dorado and Placer Counties, California. Open File Report 83-37. Prepared for the California Department of Conservation.
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Policy 7.2.1.2 Areas designated as Mineral Resource (-MR) overlay on the General Plan Land Use Map shall be identified by the Mineral Resource (-MR) combining zone district on the zoning maps when the likely extraction of the resource through surface mining methods will be compatible with adjacent land uses as determined by Policy 7.2.2.2.

Policy 7.2.1.3 The County shall request the State Department of Conservation to conduct a County-wide study to assess the location and value of non-metallic mineral materials. Once completed, the County may recognize them in the General Plan and zone them and the surroundings to allow for mineral resource management.

OBJECTIVE 7.2.2: PROTECTION FROM DEVELOPMENT

Protection of important mineral resources from incompatible development.

Policy 7.2.2.1 The minimum parcel size within, or adjacent to, areas subject to the -MR overlay shall be twenty (20) acres unless the applicant can demonstrate to the approving authority that there are no economically significant mineral deposits on or adjacent to the project site and that the proposed project will have no adverse effect on existing or potential mining operations. The minimum parcel size adjacent to active mining operations which are outside of the -MR overlay shall also be twenty (20) acres.

Policy 7.2.2.2 The General Plan designations, as shown on the General Plan land use maps, which are considered potentially compatible with surface mining shall include:

- Natural Resource (NR)
- Agricultural Land (AL)
- Open Space (OS)
- Industrial (I)
- Public Facilities (PF)
- Rural Residential (RR)
- Commercial (C)
- Low-Density Residential (LDR)

All other General Plan designations are determined to be incompatible for surface mining. Industrial uses shall be limited to those compatible with mineral exploration.

- Policy 7.2.2.3 The County shall require that new nonmining land uses adjacent to existing mining operations be designed to provide a buffer sufficient to protect the mining operation between the new development and the mining operation(s).

OBJECTIVE 7.2.3: ENVIRONMENTAL/LAND USE COMPATIBILITY

Regulation of extraction of mineral resources to ensure that environmental and land use compatibility issues are considered.

- Policy 7.2.3.1 The extraction of mineral resources within the County shall only be allowed following the approval of a special use permit and a reclamation plan conforming to the California Surface Mining and Reclamation Act (SMARA).

- Policy 7.2.3.2 In analyzing the environmental effects of mining operations, the County shall consider, at a minimum, the following issues in granting a new permit:

- A. Natural vegetation and topography for buffering;
- B. Central location of processing equipment and equipment storage;
- C. Dust control;
- D. Circulation and construction standards for access roads;
- E. Erosion control;
- F. Revegetation and re-establishment of natural appearing features on the site following mining activities;
- G. Ultimate land use;
- H. Hours of operation;
- I. Night lighting;
- J. Security fencing;
- K. Noise impacts;
- L. Protection of water quality, sensitive wildlife habitat and/or sensitive plant communities; and
- M. Phased reclamation that proceeds concurrently with surface mining.

- Policy 7.2.3.3 Existing development (commercial, residential, and public facilities), as well as undeveloped private lands, shall be protected from significant

adverse environmental effects caused by mining through use permit conditions, mitigation measures, and the Noise Element standards.

Policy 7.2.3.4 Surface access to subsurface mining is conditionally permitted only in compatible General Plan designations as defined in these policies. However, vent and escape shafts are permitted in incompatible General Plan designations where surface disturbance is minimal.

Policy 7.2.3.5 The County shall require satisfactory forms of accessible security including irrevocable letters of credit, cash deposits, escrowed negotiable securities, or performance bonds for all mining projects to cover all damages which may stem from the projects and to make sure that all reclamation is carried out. These securities shall be reviewed annually to ensure that there are sufficient funds available to repair potential damage at current costs.

Policy 7.2.3.6 Time limits for special use permits for each project shall be established on a case-by-case basis. Time limits shall be based on the reasonably expected life of the mining operation and potential conflicts with future neighboring land uses. Each project shall have a periodic review for compliance with the use permit. In no case shall such review time period exceed five years. Said review shall be funded by the applicant.

Policy 7.2.3.7 Exploration for economic mineral or ore deposits is permitted in compatible General Plan designations as defined in these policies. A special use permit shall be required if:

- A. Overburden or mineral deposits in excess of 1,000 cubic yards are disturbed; or
- B. The operation in any one location disturbs one acre or more in size; or
- C. De-watering will occur or water will be discharged from the site as a result of the operation.

Policy 7.2.3.8 Exploration for economic mineral or ore deposits is permitted in incompatible General Plan designations, provided that:

- A. Methods of geological survey, geophysical, or geochemical prospecting are used; or
- B. Bore holes and trial pits not exceeding 100 cubic yards of overburden or other mineral disturbance may be created; and
- C. No explosives may be used; there may be no drifting or tunnelling; and de-watering or water discharge is not allowed.

Policy 7.2.3.9 All exploratory operations shall require a reclamation plan and a bond to ensure its completion if:

A. Overburden or mineral deposits in excess of 1,000 cubic yards are disturbed; or

B. The operation in any one location disturbs one acre or more in size.

Policy 7.2.3.10 In those instances where a reclamation plan is not required, an erosion control plan shall be required for those operations in which over 50 cubic yards or more of overburden are disturbed.

Policy 7.2.3.11 Recreational mining, which is the extraction of minerals for recreation on a seasonal basis and the use of such devices as pans, rockers, and dredges with intakes eight inches in diameter or less, shall not require a special use permit. However, certain Federal or State regulations and local building and sanitation regulations may apply.

Policy 7.2.3.12 Except as provided for in Policy 2.2.2.7, zone changes removing the -MR Combining Zone District from the base zone district shall be considered by the County only when specific studies similar in nature to State Classification Reports prove that a significant mineral deposit no longer exists.

Policy 7.2.3.13 Regardless of the General Plan designation, subsurface mining shall be conditionally permitted throughout the County. Said mining shall be allowed only after impacts to the environment and affected surface land uses have been adequately reviewed and found to be in compliance with CEQA. Of particular importance shall be the impact of the operation on surface land uses, water quantity and quality, and noise and vibration impacts associated with surface access. All other related impacts shall also be addressed.

CONSERVATION AND PROTECTION OF WATER RESOURCES

GOAL 7.3: WATER QUALITY AND QUANTITY

Conserve, enhance, and manage water resources and protect their quality from degradation.

OBJECTIVE 7.3.1: WATER RESOURCE PROTECTION

Preserve and protect the supply and quality of the County’s water resources including the protection of critical watersheds, riparian zones, and aquifers.

Policy 7.3.1.1 Encourage the use of Best Management Practices, as identified by the Soil Conservation Service, in watershed lands as a means to prevent erosion, siltation, and flooding.

- Policy 7.3.1.2 Establish water conservation programs that include both drought tolerant landscaping and efficient building design requirements as well as incentives for the conservation and wise use of water.
- Policy 7.3.1.3 The County shall develop the criteria and draft an ordinance to allow and encourage the use of domestic gray water for landscape irrigation purposes. (See Title 22 of the State Water Code and the Graywater Regulations of the Uniform Plumbing Code).

OBJECTIVE 7.3.2: WATER QUALITY

Maintenance of and, where possible, improvement of the quality of underground and surface water.

- Policy 7.3.2.1 Stream and lake embankments shall be protected from erosion, and streams and lakes shall be protected from excessive turbidity.
- Policy 7.3.2.2 Projects requiring a grading permit shall have an erosion control program approved, where necessary.
- Policy 7.3.2.3 Where practical and when warranted by the size of the project, parking lot storm drainage shall include facilities to separate oils and salts from storm water in accordance with the recommendations of the Storm Water Quality Task Force’s California Storm Water Best Management Practices Handbooks (1993).
- Policy 7.3.2.4 The County should evaluate feasible alternatives to the use of salt for ice control on County roads.
- Policy 7.3.2.5 As a means to improve the water quality affecting the County’s recreational waters, enhanced and increased detailed analytical water quality studies and monitoring should be implemented to identify and reduce point and non-point pollutants and contaminants. Where such studies or monitoring reports have identified sources of pollution, the County shall propose means to prevent, control, or treat identified pollutants and contaminants.

OBJECTIVE 7.3.3: WETLANDS

Protection of natural and man-made wetlands, vernal pools, wet meadows, and riparian areas from impacts related to development for their importance to wildlife habitat, water purification, scenic values, and unique and sensitive plant life.

- 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 7.3.3.2 *intentionally blank*

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.

OBJECTIVE 7.3.4: DRAINAGE

Protection and utilization of natural drainage patterns.

- Policy 7.3.4.1 Natural watercourses shall be integrated into new development in such a way that they enhance the aesthetic and natural character of the site without disturbance.
- Policy 7.3.4.2 Modification of natural stream beds and flow shall be regulated to ensure that adequate mitigation measures are utilized.

OBJECTIVE 7.3.5: WATER CONSERVATION

Conservation of water resources, encouragement of water conservation, and construction of wastewater disposal systems designed to reclaim and re-use treated wastewater on agricultural crops and for other irrigation and wildlife enhancement projects.

- Policy 7.3.5.1 Drought-tolerant plant species, where feasible, shall be used for landscaping of commercial development. Where the use of drought-tolerant native plant species is feasible, they should be used instead of non-native plant species.
- Policy 7.3.5.2 A list of appropriate local indigenous drought tolerant plant materials shall be maintained by the County Planning Department and made available to the public.
- Policy 7.3.5.3 The County Parks and Recreation Division shall use drought tolerant landscaping for all new parks and park improvement projects.
- Policy 7.3.5.4 Require efficient water conveyance systems in new construction. Establish a program of ongoing conversion of open ditch systems shall be considered for conversion to closed conduits, reclaimed water supplies, or both, as circumstances permit.
- Policy 7.3.5.5 Encourage water reuse programs to conserve raw or potable water supplies consistent with State Law.

CONSERVATION OF BIOLOGICAL RESOURCES

GOAL 7.4: WILDLIFE AND VEGETATION RESOURCES

Identify, conserve, and manage wildlife, wildlife habitat, fisheries, and vegetation resources of significant biological, ecological, and recreational value.

OBJECTIVE 7.4.1: PINE HILL RARE PLANT SPECIES

The County shall protect Pine Hill rare plant species and their habitats consistent with Federal and State laws.

- 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 130.71 and where feasible the USFWS's *Gabbro Soil Plants for the Central Sierra Nevada Foothills Recovery Plan* (USFWS 2002).
- Policy 7.4.1.2 Private land for Pine Hill rare plant preserve sites will be purchased only from willing sellers.
- Policy 7.4.1.3 Limit land uses within established Pine Hill rare plant 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 The Pine Hill 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 *Intentionally blank.*
- Policy 7.4.1.6 *Intentionally blank.*
- Policy 7.4.1.7 *Intentionally blank.*

OBJECTIVE 7.4.2: IDENTIFY AND PROTECT RESOURCES

Identification and protection, where feasible, of critical fish and wildlife habitat including deer winter, summer, and fawning ranges; deer migration routes; stream and river riparian habitat; lake shore habitat; fish spawning areas; wetlands; wildlife corridors; and diverse wildlife habitat.

- Policy 7.4.2.1 The County will coordinate wildlife and vegetation protection programs with appropriate Federal and State agencies.
- Policy 7.4.2.2 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 7.4.2.3 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 Protect and preserve 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 *Intentionally blank.*
- Policy 7.4.2.7 *Intentionally blank.*
- Policy 7.4.2.8 Conserve contiguous blocks of important habitat to offset the effects of increased habitat loss and fragmentation elsewhere in the County through a Biological Resource Mitigation Program (Program). The Program will result in the conservation of:
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.
- A. Habitat Protection Strategy. The Program establishes mitigation ratios to offset impacts to special-status species habitat and special-status vegetation communities within the County.
- Special-status species include plants and animals in the following categories:
- Species listed or proposed for listing as Threatened or Endangered under the federal Endangered Species Act (ESA) or the California Endangered Species Act (CESA);
 - Species considered as candidates for listing as Threatened or Endangered under ESA or CESA;
 - Wildlife species identified by California Department of Fish and Wildlife (CDFW) as Species of Special Concern;

- Wildlife species identified by US Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) as Species of Concern;
- Plants listed as Endangered or Rare under the California Native Plant Protection Act;
- Animals fully protected under the California Fish and Game Code;
- Plants that have a California Native Plant Society (CNPS) California Rare Plant Rank (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 CRPRs are used by both CDFW and USFWS in their consideration of formal species protection under ESA or CESA.

With the exception of oak woodlands, which would be mitigated in accordance with the ORMP (see General Plan Policy 7.4.4.4), and Pine Hill rare plant species and their habitat, which would be mitigated in accordance with County Code Chapter 130.71 (see General Plan Policy 7.4.1.1), mitigation of impacts to vegetation communities will be implemented in accordance with the table below. Preservation and creation of the following vegetation communities will ensure that the current range and distribution of special-status species within the County are maintained.

Habitat Mitigation Summary Table			
Vegetation Type	Preservation	Creation	Total
Water	NA	1:1	1:1
Herbaceous Wetland	1:1	1:1	2:1
Shrub and Tree Wetlands	2:1	1:1	3:1
Upland (non-oak and non-Pine Hill rare plant species habitat)	1:1	NA	1:1

- B. Wildlife Movement for future 4- and 6- and 8-lane roadway construction projects. Consideration of wildlife movement will be given by the County on all future 4-, 6-, and 8-lane roadway

construction and widening projects. Impacts on public safety and wildlife movement for projects that include new roads of 4 or more lanes or the widening of roads to 4 or more lanes will be evaluated during the development review process (see Section C below). The analysis of wildlife movement impacts will take into account the conditions of the project site and surrounding property to determine whether wildlife undercrossings are warranted and, if so, the type, size, and locations that would best mitigate a project's impacts on wildlife movement and associated public safety.

- C. **Biological Resources Assessment.** A site-specific biological resources technical report will be required to determine the presence of special-status biological resources that may be affected by a proposed discretionary project. Vegetation communities and special-status plants shall be mapped and assessed in accordance with the CDFG 2009 *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* and subsequent updates, and the *List of Vegetation Alliances and Associations* (CDFG 2010) and subsequent updates. The report will include an assessment of direct, indirect and cumulative impacts to biological resources, including vegetation communities, plant and wildlife species and wildlife movement. The results of the biological resources technical report shall be used as the basis for establishing mitigation requirements in conformance with this policy and the Oak Resources Management Plan (ORMP, see General Plan Policy 7.4.4.4).
- D. **Habitat Protection.** 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. Wetlands mitigation may occur within mitigation banks and/or outside the County if within the watershed of impact. Mitigation sites will be prioritized based on the following criteria:
- Location within PCAs and IBCs
 - Location within other important ecological areas, as defined in the Updated INRMP Initial Inventory and Mapping (June 2010);
 - Woodland, forest and shrub communities with diverse age structure;
 - Woodland and forest communities with large trees and dense canopies;
 - Opportunities for active land management to be used to enhance or restore natural ecosystem processes;
 - Presence of or potential to support special-status species;

- Connectivity with adjacent protected lands;
 - Parcels that achieve multiple agency and community benefits;
 - Parcels that are located generally to the west of the Eldorado National Forest; and
 - Parcels that would preserve natural wildlife movement corridors such as crossings under major roadways (e.g., U.S. Highway 50 and across canyons).
- E. Mitigation Assistance. The County will establish and maintain a database of willing sellers of land for mitigation of biological resource impacts within the County. The County will manage the database as a voluntary program wherein landowners must opt-in to be included in the database by contacting the County. The database will include the following information:
- Property owner name
 - Assessor's Parcel Number
 - Parcel acreage
 - General vegetation communities as mapped in the California Department of Forestry and Fire Protection's Fire and Resource Assessment Program (FRAP) database
 - Location within Priority Conservation Area (PCA), Important Biological Corridor (IBC), or important ecological area, as defined in the Updated INRMP Initial Inventory and Mapping (June 2010).

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:

- In order to evaluate project-specific compatibility with the -IBC overlay, applicants for discretionary projects (and applicants for ministerial projects within the Weber Creek canyon IBC) shall be required to provide to the County a biological resources technical report (meeting the requirements identified in Section A of Policy 7.4.2.8 above). The site-specific biological resources technical report will determine the presence of special-status species or habitat for such species (as defined in Section B of Policy 7.4.2.8

above) that may be affected by a proposed project as well as the presence of wildlife corridors particularly those used by large mammals such as mountain lion, bobcat, mule deer, American black bear, and coyote. Properties within the -IBC overlay that are found to support wildlife movement shall provide mitigation to ensure there is no net loss of wildlife movement function and value for special-status species, as well as large mammals such as mountain lion, bobcat, mule deer, American black bear, and coyote. Mitigation measures may include land use siting and design tools.

Wildland Fire Safe measures (actions conducted in accordance with an approved Fire Safe Plan for existing structures or defensible space maintenance for existing structures consistent with California Public Resources Code Section 4291) 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. Wildland Fire Safe measures for proposed projects are not exempt from this policy.

OBJECTIVE 7.4.3: INTENTIONALLY BLANK

OBJECTIVE 7.4.4: FOREST, OAK WOODLAND, AND TREE RESOURCES

Protect and conserve forest, oak woodland, and tree resources for their wildlife habitat, recreation, water production, domestic livestock grazing, production of a sustainable flow of wood products, and aesthetic values.

- 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 conservation, protection, planting, restoration, and regeneration of native trees in new developments and within existing communities.
- Policy 7.4.4.3 Encourage the clustering of development to retain the largest contiguous areas of forests and oak woodlands possible.
- Policy 7.4.4.4 For all new development projects or actions that result in impacts to oak woodlands and/or individual native oak trees, including Heritage Trees, the County shall require mitigation as outlined in the El Dorado County Oak Resources Management Plan (ORMP). The ORMP functions as the oak resources component of the County's biological resources mitigation program, identified in 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 that are exempt from this policy. 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 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.

PRESERVATION OF CULTURAL RESOURCES

GOAL 7.5: CULTURAL RESOURCES

Ensure the preservation of the County's important cultural resources.

OBJECTIVE 7.5.1: PROTECTION OF CULTURAL HERITAGE

Creation of an identification and preservation program for the County's cultural resources.

Policy 7.5.1.1 The County shall establish a Cultural Resources Ordinance. This ordinance shall provide a broad regulatory framework for the mitigation of impacts on cultural resources (including historic, prehistoric and paleontological resources) by discretionary projects. This Ordinance should include (but not be limited to) and provide for the following:

- A. Appropriate (as per guidance from the Native American Heritage Commission) Native American monitors to be notified regarding projects involving significant ground-disturbing activities that could affect significant resources.
- B. A 100-foot development setback in sensitive areas as a study threshold when deemed appropriate.
- C. Identification of appropriate buffers, given the nature of the resources within which ground-disturbing activities should be limited.
- D. A definition of cultural resources that are significant to the County. This definition shall conform to (but not necessarily be limited to) the significance criteria used for the National Register of Historic Places (NRHP) and the California Register of Historical Resources (CRHR) and Society of Vertebrate Paleontology.

- E. Formulation of project review guidelines for all development projects.
- F. Development of a cultural resources sensitivity map of the County.

Policy 7.5.1.2 Reports and/or maps identifying specific locations of archaeological or historical sites shall be kept confidential in the Planning Department but shall be disclosed where applicable.

Policy 7.5.1.3 Cultural resource studies (historic, prehistoric, and paleontological resources) shall be conducted prior to approval of discretionary projects. Studies may include, but are not limited to, record searches through the North Central Information Center at California State University, Sacramento, the Museum of Paleontology, University of California, Berkeley, field surveys, subsurface testing, and/or salvage excavations. The avoidance and protection of sites shall be encouraged.

Policy 7.5.1.4 Promote the registration of historic districts, sites, buildings, structures, and objects in the National Register of Historic Places and inclusion in the California State Office of Historic Preservation’s California Points of Historic Interest and California Inventory of Historic Resources.

Policy 7.5.1.5 A Cultural Resources Preservation Commission shall be formed to aid in the protection and preservation of the County’s important cultural resources. The Commission’s duties shall include, but are not limited to:

- A. Assisting in the formulation of policies for the identification, treatment, and protection of cultural resources (including historic cemeteries) and the curation of any artifacts collected during field collection/excavation;
- B. Assisting in preparation of a cultural resources inventory (to include prehistoric sites and historic sites and structures of local importance);
- C. Reviewing all projects with identified cultural resources and making recommendations on appropriate forms of protection and mitigation; and
- D. Reviewing sites for possible inclusion in the National Register of Historic Places, California Register, and other State and local lists of cultural properties.

The County shall request to become a Certified Local Government (CLG) through the State Office of Historic Preservation. Certification would qualify the County for grants to aid in historic preservation projects. The Cultural Resources Preservation Commission could serve as the Commission required for the CLG program.

Policy 7.5.1.6 The County shall treat any significant cultural resources (i.e., those determined California Register of Historical Resources/National Register

of Historic Places eligible and unique paleontological resources), documented as a result of a conformity review for ministerial development, in accordance with CEQA standards.

OBJECTIVE 7.5.2: VISUAL INTEGRITY

Maintenance of the visual integrity of historic resources.

- Policy 7.5.2.1 Create Historic Design Control Districts for areas, places, sites, structures, or uses which have special historic significance.
- Policy 7.5.2.2 The County shall define Historic Design Control Districts (HDCDs). HDCD inclusions and boundaries shall be determined in a manner consistent with National Historic Preservation Act (NHPA) Historic District standards.
- A. The County shall develop design guidelines for each HDCD. These guidelines shall be compatible with NHPA standards.
 - B. New buildings and structures and reconstruction/restoration of historic (historic as per National Register of Historic Places [NRHP] and California Register of Historical Resources [CRHR] criteria) buildings and structures shall generally conform to styles of architecture prevalent during the latter half of the 19th century into the first decade of the 20th century.
 - C. Any historic building or structure located within a designated HDCD, or any building or structure located elsewhere in the county that is listed on the NRHP or CRHR, is designated a California Building of Historic Interest, or a California State Historic Landmark, or is designated as significant as per NRHP/CRHR criteria, shall not be destroyed, significantly altered, removed, or otherwise changed in exterior appearance without a design review.
 - D. In cases where the County permits the significant alteration of a historic building or structure exterior, such alteration shall be required to maintain the historic integrity and appearance of the building or structure and shall be subject to a design review.
 - E. In cases where new building construction is placed next to a historic building or structure in a designated HDCD or listed on the CRHR/NRHP, the architectural design of the new construction shall generally conform to the historic period of significance of the HDCD or listed property.
 - F. In cases where the County permits the destruction of a historic building or tearing down a structure, the building or structure shall first be recorded in a manner consistent with the standards of the NHPA

Historic American Building Survey (HABS) by a qualified professional architectural historian.

G. The County shall mandate building and structure design controls within the viewshed of the Marshall Gold Discovery State Historic Park. These design controls shall be consistent with those mandated for designated Historic Design Control Districts.

Policy 7.5.2.3 New buildings and reconstruction in historic communities shall generally conform to the types of architecture prevalent in the gold mining areas of California during the period 1850 to 1910.

Policy 7.5.2.4 The County shall prohibit the modification of all National Register of Historic Places (NRHP)/California Register of Historical Resources (CRHR) listed properties that would alter their integrity, historic setting, and appearance to a degree that would preclude their continued listing on these registers. If avoidance of such modifications on privately owned listed properties is deemed infeasible, mitigation measures commensurate with NRHP/CRHR standards shall be formulated in cooperation with the property owner.

Policy 7.5.2.5 In cases where the County permits the demolition or alteration of an historic building, such alteration or new construction (subsequent to demolition) shall be required to maintain the character of the historic building or replicate its historic features.

Policy 7.5.2.6 The County, in cooperation with the State, shall identify the viewshed of Coloma State Park and establish guidelines to be used for development within the viewshed. In addition, the County shall continue to support the relocation of State Route 49 to bypass the Park in order to protect its visual and physical integrity.

OBJECTIVE 7.5.3: RECOGNITION OF PREHISTORIC/HISTORIC RESOURCES

Recognition of the value of the County’s prehistoric and historic resources to residents, tourists, and the economy of the County, and promotion of public access and enjoyment of prehistoric and historic resources where appropriate.

OBJECTIVE 7.5.4: PROTECTION OF CEMETERIES

Preservation and protection of existing cemeteries including access and parking.

Policy 7.5.4.1 Protect access routes and parking at existing cemeteries. Development proposals will be evaluated to ensure that they do not interfere with cemeteries or their access and parking.

PRESERVATION OF OPEN SPACE**GOAL 7.6: OPEN SPACE CONSERVATION**

Conserve open space land for the continuation of the County's rural character, commercial agriculture, forestry and other productive uses, the enjoyment of scenic beauty and recreation, the protection of natural resources, for protection from natural hazards, and for wildlife habitat.

OBJECTIVE 7.6.1: IMPORTANCE OF OPEN SPACE**Consideration of open space as an important factor in the County's quality of life.**

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 Agricultural (A), Exclusive Agricultural (AE), Planned Agricultural (PA), Select Agricultural (SA-10), and Timberland Production Zone (TPZ) zoning districts are consistent with Policy 7.6.1.1 and serve one or more of the purposes set forth therein.
 - 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.

IMPLEMENTATION PROGRAM

MEASURE CO-A

Review the Zoning Ordinance (Title 17 of the El Dorado County Code) to identify revisions that accomplish the following:

- A. Incorporate tree canopy coverage standards outlined in Policy 7.4.4.4;
- B. Develop standards for use of native plants in landscaping [Policy 7.4.5.2];
- C. Establish Historic Design Control Combining Zone District and design guidelines for reconstruction and construction of new buildings and the demolition of existing buildings in such districts. Adopt an ordinance amendment implementing historic design review requirements and recordation procedures. [Policies 7.5.2.1, 7.5.2.2, and 7.5.2.4];
- D. Develop buffer standards for new nonmining land uses next to existing mining operations [Policy 7.2.2.3];
- E. Develop standards for minimizing erosion and sedimentation associated with earthwork and grading [Policy 7.1.2.2].

Responsibility:	Planning Department
Time Frame:	Update Zoning Ordinance within one year of General Plan adoption.

MEASURE CO-B

Coordinate with the Resource Conservation Districts to address erosion control issues. [Policy 7.1.2.4]

Responsibility:	Planning Department and Department of Transportation
Time Frame:	Ongoing

MEASURE CO-C

In coordination with the Resource Conservation Districts, develop a roadside maintenance program that addresses roadside drainage, the protection of adjacent surface waters, and vegetation control. [Policy 7.1.2.5]

Also refer to Measure CO-G.

Responsibility:	Department of Transportation
Time Frame:	Develop and implement program within three years of General Plan adoption.

MEASURE CO-D

Develop and agricultural permit program that includes standards for agricultural operations comparable to those in the Grading Ordinance and considers other issues important to the protection of agricultural lands.

Responsibility:	Department of Transportation, Department of Agriculture, and Planning Department
Time Frame:	Within three years of General Plan adoption

MEASURE CO-E

Request that the California Geological Survey conduct a non-metallic mineral survey for the County and manage resources appropriately. [Policy 7.2.1.3]

Responsibility:	Planning Department
Time Frame:	Request survey by state within two years of General Plan adoption. Amend General Plan upon completion of survey by state.

MEASURE CO-F

Intentionally blank

MEASURE CO-G

Create guidelines for development projects that may affect surface water resources. The guidelines should include:

- Definition(s) of surface water resources;
- Criteria for determining the presence of surface water resources;

- Buffer standards;
- Mitigation standards; and
- Use of Best Management Practices.

[Policies 7.3.1.1, 7.3.2.1, 7.3.2.3, 7.3.3.1, 7.3.3.2, and 7.3.4.2]

Also refer to Measure CO-C.

Responsibility:	Environmental Management, Department of Transportation, and Planning Department
Time Frame:	Within five years of General Plan adoption.

MEASURE CO-H

Prepare and adopt an ordinance revision to permit the use of domestic gray water for irrigation purposes. [Policy 7.3.1.3]

Responsibility:	Environmental Management and Building Department
Time Frame:	Develop ordinance within five years of General Plan adoption.

MEASURE CO-I

Evaluate alternatives to the use of salt for snow removal on County roads. [Policy 7.3.2.4]

Responsibility:	Department of Transportation
Time Frame:	Complete evaluation within two years of General Plan adoption.

MEASURE CO-J

Develop and implement a program to perform water quality analysis and monitoring of the County’s recreational waters. [Policy 7.3.2.5]

Responsibility:	Environmental Management and Department of Transportation
Time Frame:	Develop and implement program within eight years of General Plan adoption.

MEASURE CO-K

Work cooperatively with the State Department of Fish and Game, U.S. Fish and Wildlife Service, and Bureau of Land Management to implement the gabbro soils rare plant ecological

preserve and recovery program and to develop a long-term preserve strategy. Develop implementation measures to incorporate in County development standards for ministerial and discretionary projects, which may include:

- Identification of compatible land uses within preserve sites, which may include passive recreation, research and scientific study, and interpretive education; and
- Fuels management and fire protection plans to reduce fire hazards at the interface between rare plant preserve sites and residential land uses; and

[Policies 7.4.1.1, 7.4.1.2, and 7.4.1.3 and Objective 7.4.3]

Responsibility:	Planning Department
Time Frame:	Ongoing implementation to continue immediately upon General Plan adoption. Development standards to be incorporated into updated Zoning Ordinance and design standards programs.

MEASURE CO-L

Develop guidelines for the preparation of biological resources technical reports. [Policy 7.4.2.8]

Responsibility:	Planning Department and Department of Transportation
Time Frame:	Develop guidelines within five years of General Plan adoption.

MEASURE CO-M

Intentionally blank.

MEASURE CO-N

Intentionally blank.

MEASURE CO-O

Prepare and adopt a riparian setback ordinance. The ordinance, which shall be incorporated into the Zoning Code, should address mitigation standards, including permanent protection

mechanisms for protected areas, and exceptions to the setback requirements. The ordinance shall be applied to riparian areas associated with any surface water feature (i.e., rivers, streams, lakes, ponds, and wetlands) and should be prepared in coordination with Measure CO-B. [Policy 7.4.2.5]

Responsibility:	Planning Department
Time Frame:	Within three years of General Plan adoption.

MEASURE CO-P

Develop and adopt an Oak Resources Management Plan. The plan shall address the following:

- Mitigation standards for oak resources impacts;
- Definitions of exempt projects and actions;
- Technical report requirements;
- Oak resources mitigation options and standards;
- Heritage Tree mitigation standards; and
- Oak resources mitigation monitoring and reporting requirements.

- [Policy 7.4.4.4]

Responsibility:	Planning Department
Time Frame:	Concurrent with biological resources policy update.

MEASURE CO-Q

Develop and adopt a Cultural Resources Preservation Ordinance, consistent with Policy 7.5.1.1.

Responsibility:	Planning Department and Department of Transportation
Time Frame:	Adopt ordinance within two years of General Plan adoption.

MEASURE CO-R

Maintain a confidential cultural resources database of prehistoric and historic resources, including the location and condition of pioneer cemetery sites. Information may be made available consistent with state and federal law. [Policy 7.5.1.2]

Responsibility:	Planning Department
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Time Frame:	Ongoing
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MEASURE CO-S

Investigate becoming a Certified Local Government through the State Office of Historic Preservation. [Policy 7.5.1.5]

Responsibility:	Planning Department
Time Frame:	Report to the Board of Supervisors within five years of General Plan adoption.

MEASURE CO-T

Work with the State of California Department of Parks and Recreation to identify the viewshed of Marshall Gold Discovery State Historic Park (Coloma) and establish guidelines for development within that viewshed. [Policy 7.5.2.6]

Responsibility:	Planning Department
Time Frame:	Identify viewshed within four years of General Plan adoption. Adopt standards within six years.

MEASURE CO-U

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Attachment C:

Revised Draft General Plan Biological Resources Policies, changes tracked



EL DORADO COUNTY GENERAL PLAN CONSERVATION AND OPEN SPACE ELEMENT

PRINCIPLE

Consistent with the objectives, goals, and policies set forth in the Land Use Element, the Plan must conserve and improve the County's existing natural resources and open space, including agricultural and forest soils, mineral deposits, water and native plants, fish, wildlife species and habitat, and federally classified wilderness areas; and preserve resources of significant biological, ecological, historical or cultural importance.

INTRODUCTION

The purpose of the Conservation and Open Space Element of the General Plan is to address the management, preservation, and conservation of natural resources and open space of El Dorado County. Management of the County's resources will assure the availability of those resources to future generations and the realization of their full economic potential.

Pursuant to Government Code Section 65302, both a conservation and an open space element must be included in a general plan. The General Plan combines these two elements into the Conservation and Open Space Element and as such satisfies the legal requirements for the Conservation and Open Space Elements defined in the Government Code, Sections 65302(d) and 65560, respectively.

RELATIONSHIP TO OTHER ELEMENTS

This element contains provisions for the conservation and protection of soils, minerals, water, wildlife and fisheries, vegetation, cultural resources, and open space. The issues of this element are closely linked to those of almost all other elements of this General Plan. The intensity of development and issues of land use compatibility relating to resource protection and/or production are discussed in the Land Use, Agriculture and Forestry, and Parks and Recreation Elements.

Natural resources and soil preservation are also discussed in the Agriculture and Forestry Element. The Agriculture and Forestry Element focuses primarily on conservation of

agricultural lands and timber forest lands and identifies the types of uses which are compatible with resource utilization.

Measures necessary for the protection of life and property, as well as ecological values, are also discussed in the Public Health, Safety, and Noise Element.

The Parks and Recreation Element discusses the provision and maintenance of parks, recreation facilities, and trails to serve El Dorado County while the Conservation and Open Space Element deals with the conservation of open space for outdoor recreation.

The Public Services and Utilities Element discusses the conservation of reusable resources and land by recycling and waste management techniques.

ORGANIZATION OF THE ELEMENT

The Conservation and Open Space Element discusses significant natural resources including geology and soils, extractive minerals, water, biological resources, cultural resources, and open space resources. Goals, objectives, and policies are included in this element for each of the topics listed.

POLICY SECTION

SOIL CONSERVATION

GOAL 7.1: SOIL CONSERVATION

Conserve and protect the County’s soil resources.
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OBJECTIVE 7.1.1: SOILS

Long-term soil productivity.

Policy 7.1.1.1 Conserve and maintain important agricultural soils for existing and potential agricultural and forest uses by limiting non-agricultural/non-forestry development on those soils.

OBJECTIVE 7.1.2: EROSION/SEDIMENTATION

Minimize soil erosion and sedimentation.

Policy 7.1.2.1 Development or disturbance shall be prohibited on slopes exceeding 30 percent unless necessary for access. The County may consider and allow development or disturbance on slopes 30 percent and greater when:

- Reasonable use of the property would otherwise be denied.

- The project is necessary for the repair of existing infrastructure to avoid and mitigate hazards to the public, as determined by a California registered civil engineer or a registered engineering geologist.
- Replacement or repair of existing structures would occur in substantially the same footprint.
- The use is a horticultural or grazing use that utilizes “best management practices (BMPs)” recommended by the County Agricultural Commission and adopted by the Board of Supervisors.

Access corridors on slopes 30 percent and greater shall have a site specific review of soil type, vegetation, drainage contour, and site placement to encourage proper site selection and mitigation. Septic systems may only be located on slopes under 30 percent. Roads needed to complete circulation/access and for emergency access may be constructed on such cross slopes if all other standards are met.

- Policy 7.1.2.2 Discretionary and ministerial projects that require earthwork and grading, including cut and fill for roads, shall be required to minimize erosion and sedimentation, conform to natural contours, maintain natural drainage patterns, minimize impervious surfaces, and maximize the retention of natural vegetation. Specific standards for minimizing erosion and sedimentation shall be incorporated into the Zoning Ordinance.
- Policy 7.1.2.3 Enforce Grading Ordinance provisions for erosion control on all development projects and adopt provisions for ongoing, applicant-funded monitoring of project grading.
- Policy 7.1.2.4 Cooperate with and encourage the activities of the three Resource Conservation Districts in identifying critical soil erosion problems and pursuing funding sources to resolve such problems.
- Policy 7.1.2.5 The Department of Transportation, in conjunction with the Resource Conservation Districts and Soil Conservation District, shall develop a road-side maintenance program to manage roads in a manner that maintains drainage and protects surface waters while reducing road-side weed problems.
- Policy 7.1.2.6 The County shall encourage the Soil Conservation Service to update the 1974 Soil Survey and to digitize all soils mapping units on the Geographic Information System (GIS).
- Policy 7.1.2.7 The County shall require agricultural grading activities that convert one acre or more of undisturbed vegetation to agricultural cropland to obtain an agricultural permit through the Agricultural Commissioner’s office which may require approval of the Agricultural Commission. All erosion control measures included in the agricultural permit would be

implemented. All agricultural practices, including fuel reduction and fire protection, that do not change the natural contour of the land and that use “best management practices” as recommended by the County Agricultural Commission and adopted by the Board of Supervisors shall be exempt from this policy.

CONSERVATION OF MINERAL RESOURCES

GOAL 7.2: MINERAL RESOURCES

Conservation of the County’s significant mineral deposits.

OBJECTIVE 7.2.1: IDENTIFY MINERAL RESOURCES

Identification of the County’s important mineral resources.

Policy 7.2.1.1 In accordance with California Code of Regulations, Sections 3675-3676, the County shall maintain all Mineral Land Classification reports produced by the State Department of Conservation, California Geological Survey, which pertain to El Dorado County. El Dorado County hereby recognizes, accepts, and adopts by reference those State Classification Reports as they currently exist and as may be amended, or supplemented, in the future. These reports are as follows:

1. Kohler, S.L. 1983. Mineral Land Classification of the Georgetown 15' Quadrangle, El Dorado, and Placer Counties, California. Open File Report 83-35. Prepared for the California Department of Conservation.
2. Kohler, S.L. 1984. Mineral Land Classification of the Auburn 15' Quadrangle, El Dorado and Placer Counties, California. Open File Report 83-37. Prepared for the California Department of Conservation.
3. Loyd, R.C., T.P Anderson, and M.M Bushnell.1983. Mineral Land Classification of the Placerville 15' Quadrangle, El Dorado, and Amador Counties, California. Open File Report 83-29. Prepared for the California Department of Conservation.
4. Loyd, R.C. 1984. Mineral Land Classification of the Folsom 15' Quadrangle, Sacramento, El Dorado, Placer, and Amador Counties, California. Open File Report 84-50. Prepared for the California Department of Conservation.
5. Loyd, R.C., and S.L. Kohler. 1987. Mineral Land Classification of the Camino and Mokelumne Hill 15' Quadrangles, El Dorado, Amador, and Calaveras Counties, California. Open File Report 87-02. Prepared for the California Department of Conservation.

6. Busch, Lawrence L. 2001. Mineral Land Classification of El Dorado County, California. Open File Report 2000-03. Prepared for the California Department of Conservation.

Policy 7.2.1.2 Areas designated as Mineral Resource (-MR) overlay on the General Plan Land Use Map shall be identified by the Mineral Resource (-MR) combining zone district on the zoning maps when the likely extraction of the resource through surface mining methods will be compatible with adjacent land uses as determined by Policy 7.2.2.2.

Policy 7.2.1.3 The County shall request the State Department of Conservation to conduct a County-wide study to assess the location and value of non-metallic mineral materials. Once completed, the County may recognize them in the General Plan and zone them and the surroundings to allow for mineral resource management.

OBJECTIVE 7.2.2: PROTECTION FROM DEVELOPMENT

Protection of important mineral resources from incompatible development.

Policy 7.2.2.1 The minimum parcel size within, or adjacent to, areas subject to the -MR overlay shall be twenty (20) acres unless the applicant can demonstrate to the approving authority that there are no economically significant mineral deposits on or adjacent to the project site and that the proposed project will have no adverse effect on existing or potential mining operations. The minimum parcel size adjacent to active mining operations which are outside of the -MR overlay shall also be twenty (20) acres.

Policy 7.2.2.2 The General Plan designations, as shown on the General Plan land use maps, which are considered potentially compatible with surface mining shall include:

- Natural Resource (NR)
- Agricultural Land (AL)
- Open Space (OS)
- Industrial (I)
- Public Facilities (PF)
- Rural Residential (RR)
- Commercial (C)
- Low-Density Residential (LDR)

All other General Plan designations are determined to be incompatible for surface mining. Industrial uses shall be limited to those compatible with mineral exploration.

- Policy 7.2.2.3 The County shall require that new nonmining land uses adjacent to existing mining operations be designed to provide a buffer sufficient to protect the mining operation between the new development and the mining operation(s).

OBJECTIVE 7.2.3: ENVIRONMENTAL/LAND USE COMPATIBILITY

Regulation of extraction of mineral resources to ensure that environmental and land use compatibility issues are considered.

- Policy 7.2.3.1 The extraction of mineral resources within the County shall only be allowed following the approval of a special use permit and a reclamation plan conforming to the California Surface Mining and Reclamation Act (SMARA).

- Policy 7.2.3.2 In analyzing the environmental effects of mining operations, the County shall consider, at a minimum, the following issues in granting a new permit:

- A. Natural vegetation and topography for buffering;
- B. Central location of processing equipment and equipment storage;
- C. Dust control;
- D. Circulation and construction standards for access roads;
- E. Erosion control;
- F. Revegetation and re-establishment of natural appearing features on the site following mining activities;
- G. Ultimate land use;
- H. Hours of operation;
- I. Night lighting;
- J. Security fencing;
- K. Noise impacts;
- L. Protection of water quality, sensitive wildlife habitat and/or sensitive plant communities; and
- M. Phased reclamation that proceeds concurrently with surface mining.

- Policy 7.2.3.3 Existing development (commercial, residential, and public facilities), as well as undeveloped private lands, shall be protected from significant

adverse environmental effects caused by mining through use permit conditions, mitigation measures, and the Noise Element standards.

Policy 7.2.3.4 Surface access to subsurface mining is conditionally permitted only in compatible General Plan designations as defined in these policies. However, vent and escape shafts are permitted in incompatible General Plan designations where surface disturbance is minimal.

Policy 7.2.3.5 The County shall require satisfactory forms of accessible security including irrevocable letters of credit, cash deposits, escrowed negotiable securities, or performance bonds for all mining projects to cover all damages which may stem from the projects and to make sure that all reclamation is carried out. These securities shall be reviewed annually to ensure that there are sufficient funds available to repair potential damage at current costs.

Policy 7.2.3.6 Time limits for special use permits for each project shall be established on a case-by-case basis. Time limits shall be based on the reasonably expected life of the mining operation and potential conflicts with future neighboring land uses. Each project shall have a periodic review for compliance with the use permit. In no case shall such review time period exceed five years. Said review shall be funded by the applicant.

Policy 7.2.3.7 Exploration for economic mineral or ore deposits is permitted in compatible General Plan designations as defined in these policies. A special use permit shall be required if:

- A. Overburden or mineral deposits in excess of 1,000 cubic yards are disturbed; or
- B. The operation in any one location disturbs one acre or more in size; or
- C. De-watering will occur or water will be discharged from the site as a result of the operation.

Policy 7.2.3.8 Exploration for economic mineral or ore deposits is permitted in incompatible General Plan designations, provided that:

- A. Methods of geological survey, geophysical, or geochemical prospecting are used; or
- B. Bore holes and trial pits not exceeding 100 cubic yards of overburden or other mineral disturbance may be created; and
- C. No explosives may be used; there may be no drifting or tunnelling; and de-watering or water discharge is not allowed.

Policy 7.2.3.9 All exploratory operations shall require a reclamation plan and a bond to ensure its completion if:

A. Overburden or mineral deposits in excess of 1,000 cubic yards are disturbed; or

B. The operation in any one location disturbs one acre or more in size.

Policy 7.2.3.10 In those instances where a reclamation plan is not required, an erosion control plan shall be required for those operations in which over 50 cubic yards or more of overburden are disturbed.

Policy 7.2.3.11 Recreational mining, which is the extraction of minerals for recreation on a seasonal basis and the use of such devices as pans, rockers, and dredges with intakes eight inches in diameter or less, shall not require a special use permit. However, certain Federal or State regulations and local building and sanitation regulations may apply.

Policy 7.2.3.12 Except as provided for in Policy 2.2.2.7, zone changes removing the -MR Combining Zone District from the base zone district shall be considered by the County only when specific studies similar in nature to State Classification Reports prove that a significant mineral deposit no longer exists.

Policy 7.2.3.13 Regardless of the General Plan designation, subsurface mining shall be conditionally permitted throughout the County. Said mining shall be allowed only after impacts to the environment and affected surface land uses have been adequately reviewed and found to be in compliance with CEQA. Of particular importance shall be the impact of the operation on surface land uses, water quantity and quality, and noise and vibration impacts associated with surface access. All other related impacts shall also be addressed.

CONSERVATION AND PROTECTION OF WATER RESOURCES

GOAL 7.3: WATER QUALITY AND QUANTITY

Conserve, enhance, and manage water resources and protect their quality from degradation.

OBJECTIVE 7.3.1: WATER RESOURCE PROTECTION

Preserve and protect the supply and quality of the County’s water resources including the protection of critical watersheds, riparian zones, and aquifers.

Policy 7.3.1.1 Encourage the use of Best Management Practices, as identified by the Soil Conservation Service, in watershed lands as a means to prevent erosion, siltation, and flooding.

- Policy 7.3.1.2 Establish water conservation programs that include both drought tolerant landscaping and efficient building design requirements as well as incentives for the conservation and wise use of water.
- Policy 7.3.1.3 The County shall develop the criteria and draft an ordinance to allow and encourage the use of domestic gray water for landscape irrigation purposes. (See Title 22 of the State Water Code and the Graywater Regulations of the Uniform Plumbing Code).

OBJECTIVE 7.3.2: WATER QUALITY

Maintenance of and, where possible, improvement of the quality of underground and surface water.

- Policy 7.3.2.1 Stream and lake embankments shall be protected from erosion, and streams and lakes shall be protected from excessive turbidity.
- Policy 7.3.2.2 Projects requiring a grading permit shall have an erosion control program approved, where necessary.
- Policy 7.3.2.3 Where practical and when warranted by the size of the project, parking lot storm drainage shall include facilities to separate oils and salts from storm water in accordance with the recommendations of the Storm Water Quality Task Force’s California Storm Water Best Management Practices Handbooks (1993).
- Policy 7.3.2.4 The County should evaluate feasible alternatives to the use of salt for ice control on County roads.
- Policy 7.3.2.5 As a means to improve the water quality affecting the County’s recreational waters, enhanced and increased detailed analytical water quality studies and monitoring should be implemented to identify and reduce point and non-point pollutants and contaminants. Where such studies or monitoring reports have identified sources of pollution, the County shall propose means to prevent, control, or treat identified pollutants and contaminants.

OBJECTIVE 7.3.3: WETLANDS

Protection of natural and man-made wetlands, vernal pools, wet meadows, and riparian areas from impacts related to development for their importance to wildlife habitat, water purification, scenic values, and unique and sensitive plant life.

- 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 7.3.3.2 *intentionally blank*

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.

OBJECTIVE 7.3.4: DRAINAGE

Protection and utilization of natural drainage patterns.

- Policy 7.3.4.1 Natural watercourses shall be integrated into new development in such a way that they enhance the aesthetic and natural character of the site without disturbance.
- Policy 7.3.4.2 Modification of natural stream beds and flow shall be regulated to ensure that adequate mitigation measures are utilized.

OBJECTIVE 7.3.5: WATER CONSERVATION

Conservation of water resources, encouragement of water conservation, and construction of wastewater disposal systems designed to reclaim and re-use treated wastewater on agricultural crops and for other irrigation and wildlife enhancement projects.

- Policy 7.3.5.1 Drought-tolerant plant species, where feasible, shall be used for landscaping of commercial development. Where the use of drought-tolerant native plant species is feasible, they should be used instead of non-native plant species.
- Policy 7.3.5.2 A list of appropriate local indigenous drought tolerant plant materials shall be maintained by the County Planning Department and made available to the public.
- Policy 7.3.5.3 The County Parks and Recreation Division shall use drought tolerant landscaping for all new parks and park improvement projects.
- Policy 7.3.5.4 Require efficient water conveyance systems in new construction. Establish a program of ongoing conversion of open ditch systems shall be considered for conversion to closed conduits, reclaimed water supplies, or both, as circumstances permit.
- Policy 7.3.5.5 Encourage water reuse programs to conserve raw or potable water supplies consistent with State Law.

CONSERVATION OF BIOLOGICAL RESOURCES

GOAL 7.4: WILDLIFE AND VEGETATION RESOURCES

Identify, conserve, and manage wildlife, wildlife habitat, fisheries, and vegetation resources of significant biological, ecological, and recreational value.

OBJECTIVE 7.4.1: ~~RARE, THREATENED, AND ENDANGERED~~ PINE HILL RARE PLANT SPECIES

The County shall protect ~~State and Federally recognized rare, threatened, or endangered species~~ Pine Hill rare plant species and their habitats consistent with Federal and State laws.

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 ~~13047.71~~ and where feasible the USFWS's Gabbro Soil Plants for the Central Sierra Nevada Foothills Recovery Plan (USFWS 2002).

Policy 7.4.1.2 Private land for Pine Hill rare plant preserve sites will be purchased only from willing sellers.

Policy 7.4.1.3 Limit land uses within established Pine Hill rare plant 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~~The Pine Hill 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 7.4.1.5 *Intentionally blank.* The County will coordinate wildlife and vegetation protection programs with appropriate Federal and State agencies.~~

~~Policy 7.4.1.6 *Intentionally blank.*~~

~~Policy 7.4.1.7 *Intentionally blank.* 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.~~

OBJECTIVE 7.4.2: IDENTIFY AND PROTECT RESOURCES

Identification and protection, where feasible, of critical fish and wildlife habitat including deer winter, summer, and fawning ranges; deer migration routes; stream and river riparian habitat; lake shore habitat; fish spawning areas; wetlands; wildlife corridors; and diverse wildlife habitat.

~~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 "Best Management Practices" (BMPs) recommended by the County Agricultural Commission and adopted by the Board of Supervisors when not subject to Policy 7.1.2.7.~~

- Policy 7.4.2.1 The County will coordinate wildlife and vegetation protection programs with appropriate Federal and State agencies. ~~*Intentionally blank.*~~
- Policy 7.4.2.2 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.~~*Intentionally blank.*~~
- 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~~Protect and ~~manage~~preserve 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 7.4.2.6 *Intentionally blank.*
- Policy 7.4.2.7 *Intentionally blank.*
- Policy 7.4.2.8 ~~Develop within five years and implement an Integrated Natural Resources Management Plan (INRMP) that identifies~~ Conserve contiguous blocks of important habitat to offset the effects of increased habitat loss and fragmentation elsewhere in the County and establishes a program for effective habitat preservation and management. The INRMP shall include the following components:

~~Habitat Inventory. This part of the INRMP shall inventory and map the following important habitats through a Biological Resource Mitigation Program (Program). The Program will result in El Dorado County: the conservation of:~~

- ~~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.~~

- ~~A. 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.~~
- ~~B. 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.~~
- ~~C. 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.

- ~~D. 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 non native 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.~~
- ~~E. 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 CNDDDB. Monitoring results shall be compiled into an annual report to be presented to the Board of Supervisors.~~
- ~~F. 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.~~
- ~~G. 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.~~

A. Habitat Protection Strategy. The Program establishes mitigation ratios for to offset impacts to special-status species habitat and special-status biological resources, including vegetation communities, plants, and wildlife within the County.

Special-status species include plants and animals in the following categories:

- Species listed or proposed for listing as Threatened or Endangered under the federal Endangered Species Act (ESA) or the California Endangered Species Act (CESA);
- Species considered as candidates for listing as Threatened or Endangered under ESA or CESA;
- Wildlife species identified by California Department of Fish and Wildlife (CDFW) as Species of Special Concern;
- Wildlife species identified by US Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) as Species of Concern;
- Plants listed as Endangered or Rare under the California Native Plant Protection Act;
- Animals fully protected under the California Fish and Game Code;
- Plants that have a California Native Plant Society (CNPS) California Rare Plant Rank (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 CRPRs are used by both CDFW and USFWS in their consideration of formal species protection under ESA or CESA.

With the exception of oak woodlands, which would be mitigated in accordance with the ORMP (see General Plan Policy 7.4.4.4), and Pine Hill rare plant species and their habitat, which would be mitigated in accordance with County Code Chapter 130.71 (see General Plan Policy 7.4.1.1), mitigation of impacts to vegetation communities will be implemented in accordance with the table below. Preservation and creation of the following vegetation communities will ensure that the current range and distribution of special-status species within the County are maintained.

<u>Habitat Mitigation Summary Table</u>			
<u>Vegetation Type</u>	<u>Preservation</u>	<u>Creation</u>	<u>Total</u>
<u>Water</u>	<u>NA</u>	<u>1:1</u>	<u>1:1</u>
<u>Herbaceous Wetland</u>	<u>1:1</u>	<u>1:1</u>	<u>2:1</u>
<u>Shrub and Tree Wetlands</u>	<u>2:1</u>	<u>1:1</u>	<u>3:1</u>
<u>Upland (non-oak and non-Pine Hill rare plant species habitat)</u>	<u>1:1</u>	<u>NA</u>	<u>1:1</u>

B. Wildlife Movement for future 4- and 6- and 8-lane roadway construction projects. Consideration of wildlife movement will be given by the County on all future 4-, 6-, and 8-lane roadway construction and widening projects. Impacts on public safety and wildlife movement for projects that include new roads of 4 or more lanes or the widening of roads to 4 or more lanes will be evaluated during the development review process (see Section C below). The analysis of wildlife movement impacts will take into account the conditions of the project site and surrounding property to determine whether wildlife undercrossings are warranted and, if so, the type, size, and locations that would best mitigate a project’s impacts on wildlife movement and associated public safety.

C. Biological Resources Assessment. A site-specific biological resources technical report will be required to determine the presence of special-status biological resources that may be affected by a proposed discretionary project. Vegetation communities and special-status plants shall be mapped and assessed in accordance with the CDFG 2009 *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* and subsequent updates, and the *List of Vegetation Alliances and Associations* (CDFG 2010) and subsequent updates. The report will include an assessment of direct, indirect and cumulative impacts to biological resources, including vegetation communities, plant and wildlife species and wildlife movement. The results of the biological resources technical report shall be used as the basis for establishing mitigation requirements in conformance with this policy and the Oak Resources Management Plan (ORMP, see General Plan Policy 7.4.4.4).

D. Habitat Protection. 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. Wetlands mitigation may occur within mitigation banks and/or outside the County if within the watershed of impact. Mitigation sites will be prioritized based on the following criteria:

- Location within PCAs and IBCs
- Location within other important ecological areas, as defined in the Updated INRMP Initial Inventory and Mapping (June 2010);
- Woodland, forest and shrub communities with diverse age structure;
- Woodland and forest communities with large trees and dense canopies;
- Opportunities for active land management to be used to enhance or restore natural ecosystem processes;
- Presence of or potential to support special-status species;
- Connectivity with adjacent protected lands;
- Parcels that achieve multiple agency and community benefits;
- Parcels that are located generally to the west of the Eldorado National Forest; and
- Parcels that would preserve natural wildlife movement corridors such as crossings under major roadways (e.g., U.S. Highway 50 and across canyons).

E. Mitigation Assistance. The County will establish and maintain a database of willing sellers of land for mitigation of biological resource impacts within the County. The County will manage the database as a voluntary program wherein landowners must opt-in to be included in the database by contacting the County. The database will include the following information:

- Property owner name
- Assessor's Parcel Number
- Parcel acreage
- General vegetation communities as mapped in the California Department of Forestry and Fire Protection's Fire and Resource Assessment Program (FRAP) database

- Location within Priority Conservation Area (PCA), Important Biological Corridor (IBC), or important ecological area, as defined in the Updated INRMP Initial Inventory and Mapping (June 2010).

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 measuresIn order to evaluate project-specific compatibility with the -IBC overlay, applicants for discretionary projects (and applicants for ministerial projects within the Weber Creek canyon IBC) shall be required to provide to the County a biological resources technical report (meeting the requirements identified in Section A of Policy 7.4.2.8 above). The

site-specific biological resources technical report will determine the presence of special-status species or habitat for such species (as defined in Section B of Policy 7.4.2.8 above) that may be affected by a proposed project as well as the presence of wildlife corridors particularly those used by large mammals such as mountain lion, bobcat, mule deer, American black bear, and coyote. Properties within the -IBC overlay that are found to support wildlife movement shall provide mitigation to ensure there is no net loss of wildlife movement function and value for special-status species, as well as large mammals such as mountain lion, bobcat, mule deer, American black bear, and coyote. Mitigation measures may include land use siting and design tools.

Wildland Fire Safe measures (actions conducted in accordance with an approved Fire Safe Plan for existing structures or defensible space maintenance for existing structures consistent with California Public Resources Code Section 4291) 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. Wildland Fire Safe measures for proposed projects are not exempt from this policy.

OBJECTIVE 7.4.3: ~~COORDINATION WITH APPROPRIATE AGENCIES~~ INTENTIONALLY BLANK

~~Coordination of wildlife and vegetation protection programs with appropriate Federal and State agencies.~~

OBJECTIVE 7.4.4: ~~FOREST AND, OAK WOODLAND, AND TREE RESOURCES~~

~~Protect and conserve forest and, oak woodland, and tree resources for their wildlife habitat, recreation, water production, domestic livestock grazing, production of a sustainable flow of wood products, and aesthetic values.~~

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 conservation, protection, planting, restoration, and regeneration of native trees in new developments and within existing communities.

Policy 7.4.4.3 ~~Utilize~~Encourage the clustering of development to retain the largest contiguous areas of forests and oak woodlands possible in wildland (undeveloped) status.

Policy 7.4.4.4 For all new development projects (not including agricultural cultivation and/or 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 impacts to oak woodlands 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 base line aerial photography/or by site survey performed by a qualified biologist or licensed arborist individual native oak trees, including Heritage Trees, the County shall require one of two mitigation options: (1) as outlined in 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 El Dorado County Oak Resources Management Plan (INRMP) conservation fund described ORMP). The ORMP functions as the oak resources component of the County's biological resources mitigation program, identified in Policy 7.4.2.8.

Option A

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.

Option B

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 woodland 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 onsite 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.~~

OBJECTIVE 7.4.5: NATIVE VEGETATION AND LANDMARK TREES

~~Protect and maintain native trees including oaks and landmark and heritage trees.~~

~~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:~~

~~H. 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 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 onsite 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.~~

~~I. 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.~~

~~J. 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.~~

~~Penalties. Fines will be issued to any person, firm, or corporation that is not exempt from the ordinance who 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. 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 that are exempt from this policy. 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 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.~~

PRESERVATION OF CULTURAL RESOURCES

GOAL 7.5: CULTURAL RESOURCES

Ensure the preservation of the County's important cultural resources.

OBJECTIVE 7.5.1: PROTECTION OF CULTURAL HERITAGE

Creation of an identification and preservation program for the County's cultural resources.

- Policy 7.5.1.1 The County shall establish a Cultural Resources Ordinance. This ordinance shall provide a broad regulatory framework for the mitigation of impacts on cultural resources (including historic, prehistoric and paleontological resources) by discretionary projects. This Ordinance should include (but not be limited to) and provide for the following:
- A. Appropriate (as per guidance from the Native American Heritage Commission) Native American monitors to be notified regarding projects involving significant ground-disturbing activities that could affect significant resources.

- B. A 100-foot development setback in sensitive areas as a study threshold when deemed appropriate.
- C. Identification of appropriate buffers, given the nature of the resources within which ground-disturbing activities should be limited.
- D. A definition of cultural resources that are significant to the County. This definition shall conform to (but not necessarily be limited to) the significance criteria used for the National Register of Historic Places (NRHP) and the California Register of Historical Resources (CRHR) and Society of Vertebrate Paleontology.
- E. Formulation of project review guidelines for all development projects.
- F. Development of a cultural resources sensitivity map of the County.

Policy 7.5.1.2 Reports and/or maps identifying specific locations of archaeological or historical sites shall be kept confidential in the Planning Department but shall be disclosed where applicable.

Policy 7.5.1.3 Cultural resource studies (historic, prehistoric, and paleontological resources) shall be conducted prior to approval of discretionary projects. Studies may include, but are not limited to, record searches through the North Central Information Center at California State University, Sacramento, the Museum of Paleontology, University of California, Berkeley, field surveys, subsurface testing, and/or salvage excavations. The avoidance and protection of sites shall be encouraged.

Policy 7.5.1.4 Promote the registration of historic districts, sites, buildings, structures, and objects in the National Register of Historic Places and inclusion in the California State Office of Historic Preservation’s California Points of Historic Interest and California Inventory of Historic Resources.

Policy 7.5.1.5 A Cultural Resources Preservation Commission shall be formed to aid in the protection and preservation of the County’s important cultural resources. The Commission’s duties shall include, but are not limited to:

- A. Assisting in the formulation of policies for the identification, treatment, and protection of cultural resources (including historic cemeteries) and the curation of any artifacts collected during field collection/excavation;
- B. Assisting in preparation of a cultural resources inventory (to include prehistoric sites and historic sites and structures of local importance);
- C. Reviewing all projects with identified cultural resources and making recommendations on appropriate forms of protection and mitigation; and

D. Reviewing sites for possible inclusion in the National Register of Historic Places, California Register, and other State and local lists of cultural properties.

The County shall request to become a Certified Local Government (CLG) through the State Office of Historic Preservation. Certification would qualify the County for grants to aid in historic preservation projects. The Cultural Resources Preservation Commission could serve as the Commission required for the CLG program.

Policy 7.5.1.6 The County shall treat any significant cultural resources (i.e., those determined California Register of Historical Resources/National Register of Historic Places eligible and unique paleontological resources), documented as a result of a conformity review for ministerial development, in accordance with CEQA standards.

OBJECTIVE 7.5.2: VISUAL INTEGRITY

Maintenance of the visual integrity of historic resources.

Policy 7.5.2.1 Create Historic Design Control Districts for areas, places, sites, structures, or uses which have special historic significance.

Policy 7.5.2.2 The County shall define Historic Design Control Districts (HDCDs). HDCD inclusions and boundaries shall be determined in a manner consistent with National Historic Preservation Act (NHPA) Historic District standards.

A. The County shall develop design guidelines for each HDCD. These guidelines shall be compatible with NHPA standards.

B. New buildings and structures and reconstruction/restoration of historic (historic as per National Register of Historic Places [NRHP] and California Register of Historical Resources [CRHR] criteria) buildings and structures shall generally conform to styles of architecture prevalent during the latter half of the 19th century into the first decade of the 20th century.

C. Any historic building or structure located within a designated HDCD, or any building or structure located elsewhere in the county that is listed on the NRHP or CRHR, is designated a California Building of Historic Interest, or a California State Historic Landmark, or is designated as significant as per NRHP/CRHR criteria, shall not be destroyed, significantly altered, removed, or otherwise changed in exterior appearance without a design review.

D. In cases where the County permits the significant alteration of a historic building or structure exterior, such alteration shall be required

to maintain the historic integrity and appearance of the building or structure and shall be subject to a design review.

- E. In cases where new building construction is placed next to a historic building or structure in a designated HDCD or listed on the CRHR/NRHP, the architectural design of the new construction shall generally conform to the historic period of significance of the HDCD or listed property.
- F. In cases where the County permits the destruction of a historic building or tearing down a structure, the building or structure shall first be recorded in a manner consistent with the standards of the NHPA Historic American Building Survey (HABS) by a qualified professional architectural historian.
- G. The County shall mandate building and structure design controls within the viewshed of the Marshall Gold Discovery State Historic Park. These design controls shall be consistent with those mandated for designated Historic Design Control Districts.

Policy 7.5.2.3 New buildings and reconstruction in historic communities shall generally conform to the types of architecture prevalent in the gold mining areas of California during the period 1850 to 1910.

Policy 7.5.2.4 The County shall prohibit the modification of all National Register of Historic Places (NRHP)/California Register of Historical Resources (CRHR) listed properties that would alter their integrity, historic setting, and appearance to a degree that would preclude their continued listing on these registers. If avoidance of such modifications on privately owned listed properties is deemed infeasible, mitigation measures commensurate with NRHP/CRHR standards shall be formulated in cooperation with the property owner.

Policy 7.5.2.5 In cases where the County permits the demolition or alteration of an historic building, such alteration or new construction (subsequent to demolition) shall be required to maintain the character of the historic building or replicate its historic features.

Policy 7.5.2.6 The County, in cooperation with the State, shall identify the viewshed of Coloma State Park and establish guidelines to be used for development within the viewshed. In addition, the County shall continue to support the relocation of State Route 49 to bypass the Park in order to protect its visual and physical integrity.

OBJECTIVE 7.5.3: RECOGNITION OF PREHISTORIC/HISTORIC RESOURCES

Recognition of the value of the County’s prehistoric and historic resources to residents, tourists, and the economy of the County, and promotion of public access and enjoyment of prehistoric and historic resources where appropriate.

OBJECTIVE 7.5.4: PROTECTION OF CEMETERIES

Preservation and protection of existing cemeteries including access and parking.

Policy 7.5.4.1 Protect access routes and parking at existing cemeteries. Development proposals will be evaluated to ensure that they do not interfere with cemeteries or their access and parking.

PRESERVATION OF OPEN SPACE

GOAL 7.6: OPEN SPACE CONSERVATION

Conserve open space land for the continuation of the County’s rural character, commercial agriculture, forestry and other productive uses, the enjoyment of scenic beauty and recreation, the protection of natural resources, for protection from natural hazards, and for wildlife habitat.

OBJECTIVE 7.6.1: IMPORTANCE OF OPEN SPACE

Consideration of open space as an important factor in the County’s quality of life.

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 Agricultural (A), Exclusive Agricultural (AE), Planned Agricultural (PA), Select Agricultural (SA-10), and Timberland Production Zone (TPZ) zoning districts are consistent with Policy 7.6.1.1 and serve one or more of the purposes set forth therein.
- 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.

IMPLEMENTATION PROGRAM

MEASURE CO-A

Review the Zoning Ordinance (Title 17 of the El Dorado County Code) to identify revisions that accomplish the following:

- A. Incorporate tree canopy coverage standards outlined in Policy 7.4.4.4;
- B. Develop standards for use of native plants in landscaping [Policy 7.4.5.2];
- C. Establish Historic Design Control Combining Zone District and design guidelines for reconstruction and construction of new buildings and the demolition of existing buildings in such districts. Adopt an ordinance amendment implementing historic design review requirements and recordation procedures. [Policies 7.5.2.1, 7.5.2.2, and 7.5.2.4];
- D. Develop buffer standards for new nonmining land uses next to existing mining operations [Policy 7.2.2.3];
- E. Develop standards for minimizing erosion and sedimentation associated with earthwork and grading [Policy 7.1.2.2].

Responsibility:	Planning Department
Time Frame:	Update Zoning Ordinance within one year of General Plan adoption.

MEASURE CO-B

Coordinate with the Resource Conservation Districts to address erosion control issues. [Policy 7.1.2.4]

Responsibility:	Planning Department and Department of Transportation
Time Frame:	Ongoing

MEASURE CO-C

In coordination with the Resource Conservation Districts, develop a roadside maintenance program that addresses roadside drainage, the protection of adjacent surface waters, and vegetation control. [Policy 7.1.2.5]

Also refer to Measure CO-G.

Responsibility:	Department of Transportation
Time Frame:	Develop and implement program within three years of General Plan adoption.

MEASURE CO-D

Develop and agricultural permit program that includes standards for agricultural operations comparable to those in the Grading Ordinance and considers other issues important to the protection of agricultural lands.

Responsibility:	Department of Transportation, Department of Agriculture, and Planning Department
Time Frame:	Within three years of General Plan adoption

MEASURE CO-E

Request that the California Geological Survey conduct a non-metallic mineral survey for the County and manage resources appropriately. [Policy 7.2.1.3]

Responsibility:	Planning Department
Time Frame:	Request survey by state within two years of General Plan adoption. Amend General Plan upon completion of survey by state.

MEASURE CO-F

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MEASURE CO-G

Create guidelines for development projects that may affect surface water resources. The guidelines should include:

- Definition(s) of surface water resources;
- Criteria for determining the presence of surface water resources;
- Buffer standards;
- Mitigation standards; and
- Use of Best Management Practices.

[Policies 7.3.1.1, 7.3.2.1, 7.3.2.3, 7.3.3.1, 7.3.3.2, and 7.3.4.2]

Also refer to Measure CO-C.

Responsibility:	Environmental Management, Department of Transportation, and Planning Department
Time Frame:	Within five years of General Plan adoption.

MEASURE CO-H

Prepare and adopt an ordinance revision to permit the use of domestic gray water for irrigation purposes. [Policy 7.3.1.3]

Responsibility:	Environmental Management and Building Department
Time Frame:	Develop ordinance within five years of General Plan adoption.

MEASURE CO-I

Evaluate alternatives to the use of salt for snow removal on County roads. [Policy 7.3.2.4]

Responsibility:	Department of Transportation
Time Frame:	Complete evaluation within two years of General Plan adoption.

MEASURE CO-J

Develop and implement a program to perform water quality analysis and monitoring of the County’s recreational waters. [Policy 7.3.2.5]

Responsibility:	Environmental Management and Department of Transportation
Time Frame:	Develop and implement program within eight years of General Plan adoption.

MEASURE CO-K

Work cooperatively with the State Department of Fish and Game, U.S. Fish and Wildlife Service, and Bureau of Land Management to implement the gabbro soils rare plant ecological preserve and recovery program and to develop a long-term preserve strategy. Develop implementation measures to incorporate in County development standards for ministerial and discretionary projects, which may include:

- Identification of compatible land uses within preserve sites, which may include passive recreation, research and scientific study, and interpretive education; and
- Fuels management and fire protection plans to reduce fire hazards at the interface between rare plant preserve sites and residential land uses; and

[Policies 7.4.1.1, 7.4.1.2, and 7.4.1.3 and Objective 7.4.3]

Responsibility:	Planning Department
Time Frame:	Ongoing implementation to continue immediately upon General Plan adoption. Development standards to be incorporated into updated Zoning Ordinance and design standards programs.

MEASURE CO-L

Develop guidelines for the preparation of biological ~~study~~resources technical reports. [Policy 7.4.1.~~6~~2.8]

Responsibility:	Planning Department and Department of Transportation
Time Frame:	Develop guidelines within five years of General Plan adoption.

MEASURE CO-M

~~Develop and implement an Integrated Natural Resources Management Plan consistent with Policy 7.4.2.8.~~

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Responsibility:	Planning Department
Time Frame:	Develop initial habitat protection strategy; develop and implement mitigation assistance program; and develop and implement conservation fund within two years of General Plan adoption. Develop framework for acquisition strategy and monitoring program within three years of General Plan adoption. Begin actual acquisition after completion of the initial inventory and mapping; develop management strategies as properties are acquired. Adaptive management of the entire program will be ongoing.

MEASURE CO-N

~~Review and update an Important Biological Corridor (IBC) Overlay land use designation consistent with Policy 7.4.2.9.~~

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Responsibility:	Planning Department
Time Frame:	Within two years of General Plan adoption.

MEASURE CO-O

Prepare and adopt a riparian setback ordinance. The ordinance, which shall be incorporated into the Zoning Code, should address mitigation standards, including permanent protection mechanisms for protected areas, and exceptions to the setback requirements. The ordinance shall be applied to riparian areas associated with any surface water feature (i.e., rivers, streams, lakes, ponds, and wetlands) and should be prepared in coordination with Measure CO-B. [Policy 7.4.2.5]

Responsibility:	Planning Department
Time Frame:	Within three years of General Plan adoption.

MEASURE CO-P

Develop and adopt an Oak Resources Management Plan. The plan shall address the following:

- ~~Mitigation standards outlined in Policy 7.4.4.4~~ for oak resources impacts;
- ~~Thresholds~~ Definitions of significance for the loss of oak woodlands;
- Requirements for tree survey ~~exempt projects~~ and actions;

- Technical report requirements;
- ~~—Oak resources mitigation plans for discretionary projects;~~
- Replanting options and replacement standards;
- ~~Heritage/landmark tree protection~~ Tree mitigation standards; and
- ~~An Oak Tree Preservation Ordinance as outlined in~~ Oak resources mitigation monitoring and reporting requirements.

- ~~[Policy 7.4.5.1.~~
- ~~[Policies 7.4.4.4 and 7.4.5.1]~~

<u>Responsibility:</u>	<u>Planning Department</u>
<u>Responsibility:</u>	<u>Planning Department</u>
<u>Time Frame:</u>	<u>Within two years of General Plan adoption.</u>
<u>Time Frame:</u>	<u>Concurrent with biological resources policy update.</u>

MEASURE CO-Q

Develop and adopt a Cultural Resources Preservation Ordinance, consistent with Policy 7.5.1.1.

<u>Responsibility:</u>	<u>Planning Department and Department of Transportation</u>
<u>Time Frame:</u>	<u>Adopt ordinance within two years of General Plan adoption.</u>

MEASURE CO-R

Maintain a confidential cultural resources database of prehistoric and historic resources, including the location and condition of pioneer cemetery sites. Information may be made available consistent with state and federal law. [Policy 7.5.1.2]

<u>Responsibility:</u>	<u>Planning Department</u>
<u>Time Frame:</u>	<u>Ongoing</u>

MEASURE CO-S

Investigate becoming a Certified Local Government through the State Office of Historic Preservation. [Policy 7.5.1.5]

<u>Responsibility:</u>	<u>Planning Department</u>
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Time Frame:	Report to the Board of Supervisors within five years of General Plan adoption.
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MEASURE CO-T

Work with the State of California Department of Parks and Recreation to identify the viewshed of Marshall Gold Discovery State Historic Park (Coloma) and establish guidelines for development within that viewshed. [Policy 7.5.2.6]

Responsibility:	Planning Department
Time Frame:	Identify viewshed within four years of General Plan adoption. Adopt standards within six years.

MEASURE CO-U

~~Mitigation under Policy 7.4.1.6 shall include providing sufficient funding to the County’s conservation fund to acquire and protect important habitat at a minimum 2:1 ratio. The cost associated with acquisition, restoration, and management of the habitat protected shall be included in the mitigation fee. For larger development projects (i.e., those that exceed a total of 10 acres), in addition to contributing to the conservation fund at a minimum 2:1 ratio, onsite preservation and/or restoration of important habitat shall be required at a 1:1 ratio. Impacts on important habitat and mitigation requirements shall be addressed in a Biological Resources Study and an Important Habitat Mitigation Program (described below).~~

~~A. Biological Resources Study. The County shall adopt biological resource assessment standards that apply to all discretionary projects that would result in disturbance of soil and native vegetation in areas that include important habitat as defined in the INRMP. The assessment of the project site must be in the form of an independent Biological Resources Study, and must be completed by a qualified biologist. The evaluation shall quantify the amount of important habitat, by habitat type, as defined in the General Plan and delineated on maps included in the INRMP. The Biological Resources Study shall also address the potential for the project to adversely affect important habitat through conversion or fragmentation. This requirement shall not apply to projects that are on lands that either (1) have already been the subject of a study and for which all mitigation requirements are being implemented or (2) have been evaluated by the County and found to not possess any important habitat resources.~~

~~B. Important Habitat Mitigation Program. The Biological Resource Study shall include an Important Habitat Mitigation Program that identifies options that would avoid, minimize, or compensate for impacts on important habitats in compliance with the standards of the INRMP and the General Plan. All mitigation programs shall include a monitoring and reporting component requiring reports to the County not less than once each year for a period of not less than 10 years. The report will include a description of the lands included in the mitigation program (including location and~~

size), a summary of the evaluation criteria established at the time the mitigation program was approved, an evaluation of the mitigation program based on those criteria, and recommendations for action during the following year. The County shall adopt standards for evaluating mitigation programs proposed as part of the Biological Resources Study described above. The standards shall ensure that the mitigation reduces direct and cumulative impacts of proposed development on important habitats to less than significant levels in accordance with CEQA thresholds.

Responsibility:	Planning Department
Time Frame:	Refer to Measures CO-L and CO-M as applicable.

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Attachment D:

Revised Draft Oak Resources Management Plan, clean

1.0 Introduction

This Oak Resources Management Plan (ORMP) updates and revises the Oak Woodland Management Plan adopted by the El Dorado County Board of Supervisors on May 6, 2008 (El Dorado County 2008). It incorporates more recent oak resources mapping data for the County and reflects policy language changes made during the General Plan Biological Policy Review project conducted in 2015. This ORMP incorporates relevant information included in the 2008 Plan, where applicable, and was prepared in coordination with El Dorado County Community Development Agency staff. It also incorporates public input gathered during project-focused hearings and direction given by the El Dorado County Board of Supervisors.

1.1 Purpose

The purpose of this 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 woodland conservation. This ORMP functions as the oak resources component of the County's biological resources mitigation program, identified in General Plan Policy 7.4.2.8. This 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 that are exempt from mitigation requirements. This 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 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 this ORMP. Lastly, this ORMP provides guidance for voluntary oak woodland and oak tree conservation and management efforts by landowners and land managers.

Loss and fragmentation of wildlife habitat, including oaks and oak woodlands, was identified in the 2004 General Plan Environmental Impact Report (EIR) as a significant impact that would result from development under the General Plan. The County identified several mitigation measures which would reduce the severity of these impacts, although not to a less than significant level. These mitigation measures included Policies 7.4.4.4, 7.4.4.5 and 7.4.5.2, and the related Implementation Measure CO-P. During the General Plan Biological Policy Review project conducted in 2015, these policies were edited and consolidated into one single policy (Policy 7.4.4.4). Implementation Measure CO-P was also modified during this process. The revised language in Policy 7.4.4.4 states that mitigation requirements for impacts to oak resources (oak woodlands, individual native oak trees, and Heritage Trees) shall be outlined in this ORMP. Revised Implementation Measure CO-P directs the County to develop and adopt an ORMP that addresses the following:

- Mitigation standards for oak resources impacts;
- Definitions of exempt projects and actions;
- Technical report requirements;
- Oak resources mitigation options and standards;

- Heritage Tree mitigation standards; and
- Oak resources mitigation monitoring and reporting requirements.

An Oak Resources Conservation ordinance that incorporates the standards outlined in this ORMP will be developed in conjunction with adoption of the ORMP.

At the state level, the Oak Woodlands Conservation Act of 2001 recognizes the importance of private land stewardship in conserving oak woodlands. The legislation established the California Oak Woodlands Conservation Program (COWCP), the mission of which is to “conserve the integrity and diversity of oak woodlands across California’s working landscapes through incentives and education.” The COWCP provides technical and financial incentives to private landowners to protect and promote biologically functional oak woodlands.

This ORMP serves 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 (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.

1.2 Goals and Objectives of Plan

The ORMP goals are guided by two General Plan Objectives: Objective 7.4.2 and Objective 7.4.4. General Plan Objective 7.4.2 states: *Identify and Protect Resources*: Identification and protection, where feasible, of critical fish and wildlife habitat including deer winter, summer, and fawning ranges; deer migration routes; stream and river riparian habitat; lake shore habitat; fish spawning areas; wetlands; wildlife corridors; and diverse wildlife habitat.

General Plan Objective 7.4.4 states: *Forest, Oak Woodland, and Tree Resources*: Protect and conserve forest, oak woodland, and tree resources for their wildlife habitat, recreation, water production, domestic livestock grazing, production of a sustainable flow of wood products, and aesthetic values.

The following goals set forth by the General Plan are met in this ORMP:

- Identify standards for determining oak woodland and native oak tree impacts, outline impact mitigation requirements and options, identify technical report submittal requirements, and outline impact mitigation monitoring and reporting requirements;
- Define Heritage Trees and identify impact mitigation requirements;
- Provide mitigation alternatives for impacts to oak resources consistent with state-level requirements;
- Provide a flexible framework for oak resources mitigation via on-site and off-site mechanisms, including an in-lieu fee payment program;
- Develop an oak woodland in-lieu fee and an individual native oak tree-based in-lieu fee;

- Identify Priority Conservation Areas (PCAs) within large expanses of contiguous oak woodland habitat where land or conservation easements may be acquired from willing sellers to offset the effects of increased habitat loss and fragmentation elsewhere;
- Identify minimum standards under which oak woodland conservation may occur outside of identified PCAs;
- Enhance oak woodland conservation by connecting acquisitions from willing sellers with existing open space, including publicly-owned lands that are managed for oak woodland habitat values (e.g., ecological preserves, recreation lands, rangelands, or natural resource areas) consistent with the County’s open space conservation goals (Goal 7.6; Policy 7.6.1.1); and
- Establish a database inventory of interested buyers and willing landowners wishing to participate in oak woodland acquisition and management mitigation options (Policy 7.4.2.8).

1.3 Oak Resources in El Dorado County

1.3.1 Oak Woodlands

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 ten percent canopy cover or that may have historically supported greater than ten percent canopy cover.” For the purposes of this ORMP, the conservation focus is on existing oak woodlands. This ORMP addresses the same study area (below 4,000 feet elevation) and same categories of oak woodlands (California Fire and Resource Assessment Program (FRAP)) as were addressed in the 2008 Oak Woodland Management Plan. These categories of oak woodland were also addressed in the 2004 General Plan using FRAP data from 2002. More recent oak woodland distribution data for El Dorado County available via FRAP (2006) identifies six oak woodland types, which are listed in Table 1 below, along with the acreage of each category found within the ORMP study area. Less than 3,500 acres of valley oak woodland is mapped for El Dorado County, which is designated as a “sensitive habitat” in the General Plan EIR. Finally, while coastal oak woodland is identified in the 2006 FRAP vegetation data set for the ORMP planning area, its presence is unlikely given 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 2006 FRAP data set and the area is likely another oak woodland type.

**Table 1
Acreage of Oak Woodland Types in the ORMP Planning Area (2006 FRAP Data)**

Oak Woodland Type	CWHR Code	Acreage	Percent
Blue oak woodland	BOW	42,616	17.0%
Blue oak-foothill pine	BOP	12,915	5.2%
Coastal oak woodland	COW	13	<0.1%
Montane hardwood	MHW	157,455	62.8%
Montane hardwood-conifer	MHC	34,322	13.7%
Valley oak woodland	VOW	3,434	1.4%
Total:		250,755	100%

A thorough discussion of oak woodland habitat identification and values is presented in Appendix A.

1.3.2 Oak Trees

There are six primary native oak tree species in El Dorado County, including blue oak (*Quercus douglasii*), valley oak (*Quercus lobata*), California black oak (*Quercus kelloggii*), interior live oak (*Quercus wislizeni*), canyon live oak (*Quercus chrysolepis*), and Oregon 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.

1.4 Economic Activity, Land, and Ecosystem Values of Oak Resources

Agriculture and recreation-based tourism are important economic generators in El Dorado County. Oak resources provide value for these activities, including forage value for ranching, soil retention and watershed function benefits that contribute to agricultural activities, and aesthetic value for agri-tourism. Oak resources contribute to soil retention and provide watershed benefits, which have benefits to the agricultural community. Deer and other game species are dependent on oak woodland habitat and provide recreational hunting opportunities, which can generate revenues for ranching land owners through hunting leases. Oak resources contribute to a high-quality visit for recreation tourists, whose activities may include camping, fishing, hiking, bird-watching, and equestrian trail riding.

Studies have also concluded that the presence of oak resources enhances property value by providing shade, wind breaks, sound absorption, land use buffers, erosion control, and aesthetic beauty. Oak resources also contribute to healthy lands and watersheds. They do this by providing habitat for animals, maintaining water quality, and improving soil characteristics. Oak resources have also been identified as a valuable component in greenhouse gas reduction, trapping and storing atmospheric carbon dioxide.

More information regarding economic activities, land values, and ecosystem values are presented in Appendix A.

1.5 State-level Regulations

California Public Resources Code (PRC) Section 21083.4 requires a county to determine (as part of its project review required under the California Environmental Quality Act) 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 woodland 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 seven 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. This ORMP incorporates a range of mitigation alternatives that conform to these requirements.

No state-level regulations exist that require mitigation for impacts to individual oak trees that occur outside of oak woodlands; however, this ORMP identifies mitigation requirements for individual native oaks trees and Heritage Trees to meet the goals and objectives of the General Plan.

2.0 Oak Resources Impact Mitigation Requirements

The following sections outline mitigation requirements for impacts to oak resources. These mitigation requirements meet the goals and objectives of the General Plan and fulfill the requirements of General Plan Policy 7.4.4.4.

2.1 *Applicability and Exemptions*

The oak resources impact mitigation requirements outlined in this section apply to all new development projects or actions that result in impacts to oak woodlands and/or individual native oak trees, including Heritage Trees. Specifically, oak woodland impact mitigation is required for any action requiring discretionary development entitlements or approvals from El Dorado County. Individual native oak tree and Heritage Tree impact mitigation is required for any action requiring a building permit or grading permit issued by El Dorado County and/or any action requiring discretionary development entitlements or approvals from El Dorado County. Activities that do not require one of these two permit types or discretionary approvals do not trigger the impact mitigation requirements included in this ORMP for oak woodlands or for individual native oak trees. However, all impacts to Heritage Trees are subject to the mitigation requirements contained herein. Oak woodland impacts or removal of individual native oak trees (excluding Heritage Trees) associated with the following projects or actions are exempted from the mitigation requirements included in this ORMP:

- Projects or actions occurring on single-family residential lots of 1 acre or less that cannot be further subdivided;
- Actions taken pursuant to an approved Fire Safe Plan for existing structures or in accordance with defensible space maintenance requirements for existing structures in state responsibility areas (SRA) as identified in California Public Resources Code (PRC) Section 4291 (actions associated with Fire Safe Plans or defensible space areas for new or proposed development are not exempt);
- Actions taken to maintain safe operation of existing utility facilities in compliance with state regulations (PRC 4292-4293 and California Public Utilities Commission (CPUC) General Order 95) (actions associated with development of new utility facilities, including transmission or utility lines, are not exempt);
- Road widening and realignment projects necessary to increase capacity, protect public health, and improve safe movement of people and goods in existing public rights-of-way (as well as acquired rights-of-way necessary to complete the project) where the new alignment is dependent on an existing alignment (new proposed roads within the County Circulation Element and internal circulation roads within new or proposed development are not exempt);
- 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, or within a sphere of influence as defined pursuant to California Government Code §56076;
- Agricultural activities conducted for the purposes of producing or processing plant and animal products or the preparation of land for this purpose;

- Agricultural cultivation/operations, whether for personal or commercial purposes (excluding commercial firewood operations);
- Activities occurring on lands in Williamson Act Contracts or under Farmland Security Zone Programs;
- Actions taken during emergency firefighting operations and associated post-fire activities;
- Tree removal permitted under a Timber Harvest Plan approved by CAL FIRE;
- Native oak tree removal when a tree exhibits high failure potential with the potential to injure persons or damage property, as documented in writing by a Certified Arborist or Registered Professional Forester; or
- When a native oak tree, other than a Heritage Tree, is cut down on the owner’s property for the owner’s personal use.

Additionally, this ORMP provides for reductions to oak woodland mitigation for affordable housing projects that are not exempted as defined above. Specifically, development projects that propose a minimum of 10 percent of the dwelling units as income restricted affordable units, as defined by California Health and Safety Code §50052.5, 50053, and 50093, shall be granted a reduction in the amount of oak woodland that is required to be mitigated, as set forth in Table 2. The reduction is to be applied to the mitigation ratio presented in Table 3 and shall only be applied to the residential portion(s) of the proposed project. This reduction for affordable housing projects applies to oak woodland and individual native oak tree impacts and but not to Heritage Tree impacts. In no case shall the mitigation requirement be less than zero.

Table 2
Affordable Housing Mitigation Reduction

Affordable Housing Type (Household Income Level)	Percent Oak Woodland Mitigation Reduction (for portion of project that is income restricted)
Very Low	200%
Lower	100%
Moderate	50%

Example: A project proposes 25% of the units to be affordable in the Lower income category. The oak woodland mitigation ratio may be reduced by 25%. A Moderate income project that provides all units at that income level may reduce the oak woodland mitigation ratio by 50%. A project with 20% Very Low income units would receive a 40% reduction in oak woodland mitigation ratio.

2.2 Oak Woodland Permits and Mitigation

The policy of the County is to preserve oak woodlands when feasible, through the review of all proposed development activities where woodlands are present on either public or private property, while at the same time recognizing individual rights to develop private property in a reasonable manner. As such, the County shall require mitigation for impacts to oak woodlands. The following sections outline oak woodland permit and mitigation requirements and Figure 1 outlines the permit and mitigation process.

2.2.1 Oak Woodland Removal Permits

An oak woodland removal permit shall be required for a discretionary project to authorize removal of any trees that are a component of an oak woodland. An oak resources technical report shall accompany any oak woodland removal permit application submitted to the County. The County may impose such reasonable conditions of approval as are necessary to protect the health of existing oak woodlands, the public, and the surrounding property. Oak woodland removal permit review will occur concurrently with the environmental review process for discretionary projects. In addition to findings of consistency with the requirements and standards of this ORMP, the County shall make the following findings before approving an oak woodland removal permit application:

- The proposed action is consistent with the General Plan; and
- The proposed action would not be detrimental to the public health, safety and welfare, or injurious to the neighborhood; and
- The proposed action is specifically allowed by an oak woodland removal permit pursuant to this ORMP.

An appeal to the fees established through this ORMP shall be in accordance with the appeal procedure set forth in Section 130.22.220 of the County Code.

Commercial firewood cutting operations in oak woodlands shall also require an oak woodland removal permit. In reviewing an oak woodland removal permit application for firewood cutting operations, the County shall consider the following:

- Whether the removal of the tree(s) would have a significant negative environmental impact;
- Whether the proposed removal would not result in clear-cutting, but would 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 oak woodland coverage would be.

Fines shall be issued to any person, firm, or corporation that is not exempt from the standards included in this ORMP who impacts an oak woodland without first obtaining an oak woodland removal permit. Fines may be as high as three times the current oak woodland in-lieu fee amount. If an oak woodland is impacted without an oak woodland removal permit, in addition to issuing a fine, the County may choose to deny or defer approval of any applications for development of that property for a period of up to 5 years. All monies received as fines for illegal oak tree and woodland removal shall be deposited in the County's Oak Woodland Conservation Fund.

2.2.2 Oak Woodland Mitigation

In order to incentivize on-site retention of oak woodlands, mitigation for impacts to oak woodlands shall be based on the ratios presented in Table 3.

Table 3
Oak Woodland Mitigation Ratios

Percent of Oak Woodland Impact	Oak Woodland Mitigation Ratio
0-50%	1:1
50.1-75%	1.5:1
75.1-100%	2:1

Oak woodland impacts and mitigation shall be addressed in an oak resources technical report. As presented in Table 3, all of a project's oak woodland impacts shall be mitigated at a 1:1 ratio where 50 percent or less of on-site oak woodlands are impacted, all of a project's oak woodland impacts shall be mitigated at a 1.5:1 ratio where 50.1 to 75 percent of on-site oak woodlands are impacted, and all of a project's oak woodland impacts shall be mitigated at a 2:1 ratio where greater than 75 percent of on-site oak woodlands are impacted. Non-exempt County road projects shall provide oak woodland mitigation at a ratio of 1:1 regardless of the amount of onsite retention. A deed restriction or conservation easement shall be placed over retained on-site woodlands and those woodlands retained on site shall not be counted towards the impacted amount or towards the required mitigation. Mitigation for the impacted oak woodlands shall occur at the ratio required under Table 3 using one or more of the following options:

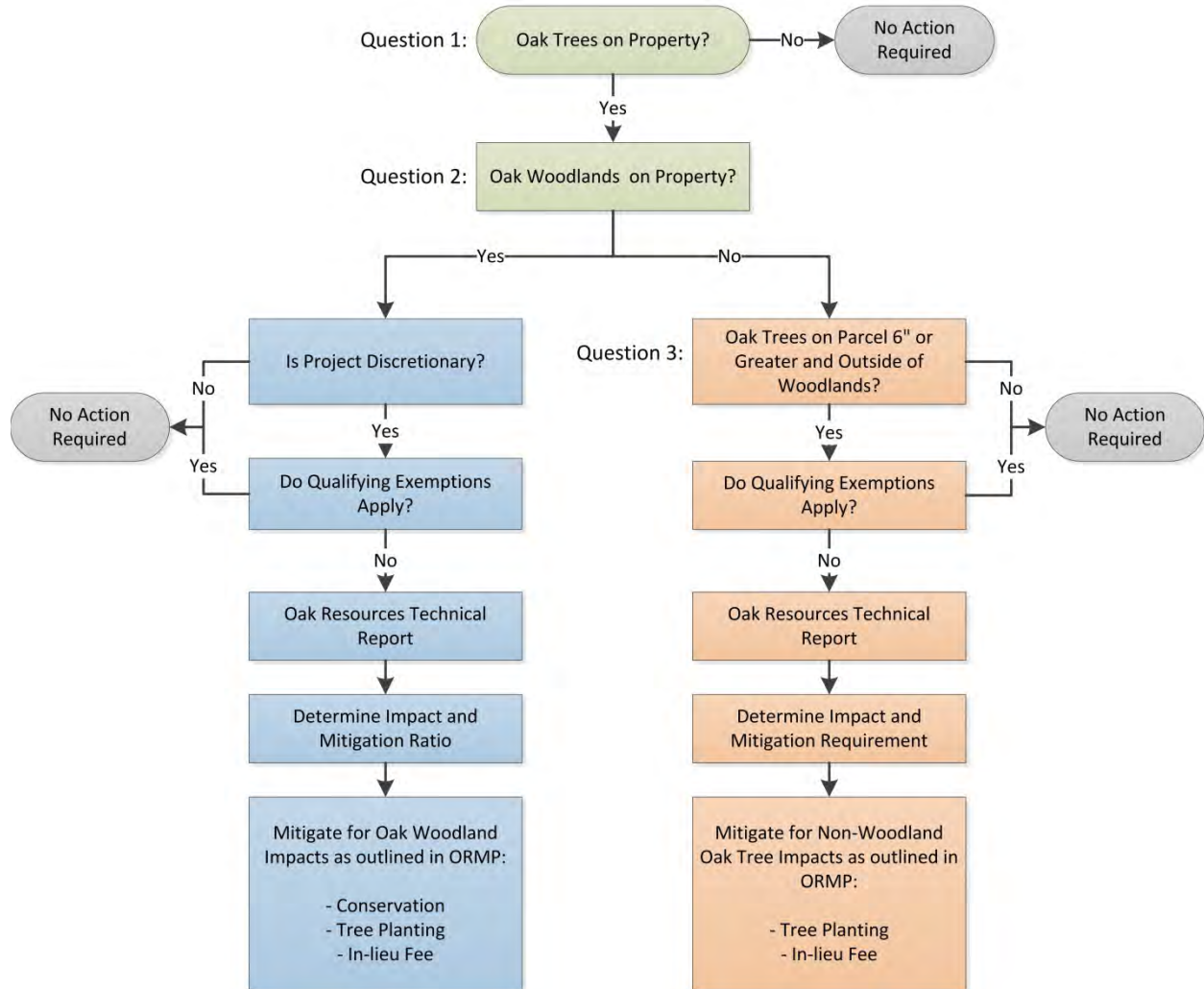
1. Deed restriction or conservation easement acquisition (off-site), and/or acquisition in fee title by a land conservation organization (off-site);
2. In-lieu fee payment;
3. Replacement planting on-site within an area subject to a deed restriction or conservation easement;
4. Replacement planting off-site within an area subject to a conservation easement; or
5. A combination of numbers 1 through 4 above.

Consistent with California PRC 21083.4, replacement planting shall not account for more than 50 percent of the oak woodland mitigation requirement.

Figure 1. Oak Resources Permitting and Mitigation Process

Oak Resources Process Flow Chart

(Must Answer Questions 1, 2, and 3)



2.3 Individual Native Oak Tree and Heritage Tree Permits and Mitigation

The policy of the County is to preserve native oak trees when 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. As such, the County shall require mitigation for impacts to individual native oak trees and Heritage Trees.

2.3.1 Oak Tree Removal Permits

A tree removal permit shall be required by the County for removal of any individual native oak tree not located within an oak woodland and/or for removal of any Heritage Tree. An oak resources technical report shall accompany any tree removal permit application submitted to the County. 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. Oak tree removal permit review will occur concurrent with the environmental review process for discretionary projects or concurrently with other permit review and processing for ministerial projects (e.g., building permits). The County will prepare a permit application for ministerial review. In addition to findings of consistency with the requirements and standards of this ORMP, the County shall make the following findings before approving an oak tree removal permit application:

- The proposed action is consistent with the General Plan; and
- The proposed action would not be detrimental to the public health, safety and welfare, or injurious to the neighborhood; and
- The proposed action is specifically allowed by an oak woodland removal permit pursuant to this ORMP.

An appeal to the fees established through this ORMP shall be in accordance with the appeal procedure set forth in Section 130.22.220 of the County Code.

Commercial firewood cutting operations shall also require a tree removal permit if not approved under an oak woodland removal permit. In reviewing a tree removal permit application for commercial firewood cutting operations, the County shall consider the following:

- Whether the removal of the tree(s) would have a significant negative environmental impact;
- Whether the tree proposed for removal is a Heritage Tree;
- Whether replanting would be necessary to ensure adequate regeneration;
- Whether the removal would create the potential for soil erosion; and
- Whether any other limitations or conditions should be imposed in accordance with sound tree management practices.

- Any person, firm, or corporation that is not exempt from the standards included in this ORMP who removes.

Fines shall be issued to any person, firm, or corporation that is not exempt from the standards included in this ORMP who removes 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 the cost of replacement of up to three times the number of required replacement trees. In the case of unpermitted Heritage Tree removal, fines may be as high as 9 times the current market value of replacement trees, as well as the cost of replacement, and/or the cost of replacement of up to 9 times the number of required replacement trees. If individual native oak trees or Heritage Trees are removed without an oak tree removal permit, in addition to issuing a fine, the County may choose to deny or defer approval of any applications for development of that property for a period of up to 5 years. All monies received as fines for illegal oak tree and woodland removal shall be deposited in the County's Oak Woodland Conservation Fund.

2.3.2 Oak Tree Mitigation

Mitigation for removal of individual native oak trees shall be based on an inch-for-inch replacement standard (defined in Section 2.4) and shall be quantified and outlined in an oak resources technical report (defined in Section 6.0). Mitigation for removal of Heritage Trees shall be based on an inch-for-inch replacement standard at a 3:1 ratio and shall also be quantified and outlined in an oak resources technical report.

Options for individual native oak tree and Heritage Tree impact mitigation requirements include:

1. Replacement planting on-site within an area subject to a deed restriction or conservation easement;
2. Replacement planting off-site within an area subject to a conservation easement or acquisition in fee title by a land conservation organization;
3. In-lieu fee payment; or
4. A combination of numbers 1 through 3 above.

Mitigation for individual native oak tree and/or Heritage Tree impacts shall be addressed in an oak resources technical report.

2.4 Replacement Planting Guidelines

This section provides guidelines for projects that elect to mitigate via replacement planting. Replacement plantings may be accepted if the replanting area can support oak resources (e.g., proper soil type and general environment). The intent is not to remove existing natural habitats for replacement plantings or to create a continuous canopy that would reduce wildlife value or contribute to increased fire hazard. Replacement plantings are subject to County approval and shall be completed as follows:

- Oak Woodland Impacts: For impacts to oak woodlands, planting density shall be based on recommendations made by a qualified professional and presented in an oak resources

technical report. Planting density shall be based on the density of impacted oak woodlands, which shall be documented in the oak resources technical report. Replacement trees shall be regularly monitored and maintained and shall survive for a period of 7 years, calculated from the day of planting. Acorns may be used instead of container trees. If acorns are used, they shall be planted at a 3:1 ratio as determined by the tree replacement formula. The replacement is as follows:

Replacement planting with container trees (one-gallon or DeePot 40-sized container trees, that are locally sourced, shall follow this formula for ratios:

(Impacted Oak Woodland Area in acres) x (Impacted Oak Woodland Density in trees/acre) = the total number of replacement trees to be replanted

Replacement replanting by acorn shall be from locally-sourced acorns (acorns gathered locally). The replacement ratio by acorn replanting shall be obtained by the following formula

(Impacted Oak Woodland Area in acres) x (Impacted Oak Woodland Density in trees/acre) x (3 acorns per tree) = the total number of acorns to be replanted

This ORMP does not preclude over-planting so that the identified woodland density may be accomplished at the end of the 7-year maintenance and monitoring period. Replacement planting may use a combination of replacement tree sizes (one-gallon, DeePot 40, acorns) if consistency with these ratios is maintained and documented in an oak resources technical report. Monitoring reports shall be submitted to the County at least annually during the 7-year maintenance and monitoring period and documentation of replacement planting success shall be provided to the County at the end of the 7-year monitoring and maintenance period (final monitoring report).

- Individual Native Oak Tree and Heritage Tree Impacts: For impacts to individual native oak trees that are not otherwise mitigated, replacement planting shall be calculated based upon an inch-for-inch replacement of removed individual native oak trees. The total of replacement trees shall have a combined diameter of the tree(s) removed. Replacement tree species shall be the same proportion as those removed. For the purposes of this requirement, a 15-gallon replacement tree is assumed to represent 1-inch of trunk diameter. Replacement trees shall be planted on-site and monitored and maintained for a period of 7 years, calculated from the day of planting. Documentation of replacement planting success shall be provided to the County at the end of the 7-year monitoring and maintenance period. Any trees that do not survive the 7-year monitoring and maintenance period shall be replaced by the responsible party listed on the Oak Tree Removal Permit and shall be monitored and maintained for 7 years. Replacement tree sizes may vary and may include acorn plantings, based on documentation of inch-for-inch replacement consistency included in an oak resources technical report. If acorns are used, they shall be planted at a 3:1 ratio (3 acorns for every 1-inch of trunk diameter removed) under the direction of a qualified professional. The replacement planting area shall be suitable for tree planting, shall not conflict with current or planned land uses, and shall be large enough to accommodate replacement plantings at a density no greater than 200 trees per acre. This ORMP does not preclude over-planting so that the minimum survival rate may be accomplished at the end of the 7-year maintenance and monitoring period. Monitoring reports shall be submitted to the County at least annually during the 7-year maintenance

and monitoring period and documentation of replacement planting success shall be provided to the County at the end of the 7-year monitoring and maintenance period (final monitoring report).

For impacts to Heritage Trees, replacement planting shall adhere to the standards identified for individual native oak trees; however, replacement totals shall be calculated based upon an inch-for-inch replacement at a 3:1 ratio.

- On-Site Replacement Planting: On-site replacement trees are to be planted to the satisfaction of the Development Services Director. The replacement planting area shall be suitable for tree planting, shall not conflict with current or planned land uses, and shall be large enough to accommodate replacement plantings at a density equal to the density of oak woodlands impacted. A deed restriction or conservation easement to the satisfaction of County Counsel and the Director shall be required to ensure the long term conservation of any on-site replacement trees planted. The Conservation Easement shall be in favor of the County or a County-approved conservation organization. Maintenance and monitoring shall be required for a minimum of 7 years after planting. Any trees that do not survive during this period of time shall be replaced by the responsible party listed on the Oak Tree Removal Permit and monitored to ensure survival for a period of 7 years from the date of planting.
- Off-Site Replacement Planting: The applicant may be permitted to procure an off-site planting area for replacement planting, preferably in proximity and/or in connection with oak woodlands contiguous to the project site or within or adjacent to a PCA or an Important Biological Corridor as designated in the General Plan or important ecological area as identified in the Initial Inventory and Mapping (June 2010). The replacement planting area shall be suitable for tree planting, shall not conflict with current or planned land uses, and shall be large enough to accommodate replacement plantings at a density no greater than 200 trees per acre. A conservation easement to the satisfaction of County Counsel and the Development Services Director shall be required to ensure the long term maintenance and preservation of any on-site replacement trees planted. The Conservation Easement shall be in favor of the County or a County approved conservation organization. Maintenance and monitoring shall be required for a minimum of 7 years after planting. Any trees that do not survive during this period of time shall be replaced by the responsible party listed on the Oak Tree Removal Permit and monitored to ensure survival for a period of 7 years from the date of planting.
- Replacement Planting Plans: Oak resources replacement planting plans shall be prepared for all replacement planting efforts (on- and off-site) by a qualified professional and may be prepared in conjunction with oak resources technical report. Replacement planting plans shall address the following:
 - Consistency with the accepted native oak tree planting standards, including those outlined in Regenerating Rangeland Oaks in California (McCreary 2009), How to Grow California Oaks (McCreary 1995), How to Collect, Store and Plant Acorns (McCreary undated), and other publications and protocols that may be established by the University of California, Division of Agriculture and Natural Resources.
 - The suitability of the site shall be demonstrated with soil information, aerial photography, or other resources.

- The density of replanting shall be determined by the qualified professional, based on accepted practice and current research, but shall not exceed 200 trees per acre.
- The intent of the replacement planting plan is to provide replacement oak trees or acorns with a similar mix of species as those removed, however, the species may vary based on site specific conditions, as determined by the qualified professional.
- Acorns or container trees for replanting shall be from local sources, when available, to maintain local genetic strains.
- Replacement planting shall not be located within the 100-foot defensible space zone from an existing or proposed structure unless otherwise consistent with CAL FIRE's defensible space guidelines and fuels reduction requirements mandated under PRC 4291.
- Replacement plantings shall be maintained in a manner determined by the qualified professional, based on the site-specific conditions, which may include weed control, irrigation, tree protection, pest management, and/or fertilization.
- The replacement planting plan shall identify the frequency and methods of maintenance and monitoring, as well as contingencies or alternatives if the success criteria are not met annually or at the end of the monitoring term along with a means to ensure compliance with the replacement planting plan. The monitoring term shall be 7 years (PRC 21083.4).
- Best Management Practices (BMPs) for protection of retained oaks during and after construction (refer to Appendix D).
- An estimate of the total costs associated with implementation of the replacement plan.

2.5 Oak Resources Technical Reports

This section provides guidelines for projects that require preparation of an oak resources technical report. An oak resources technical report is a stand-alone report prepared by a qualified professional that includes the following:

- Identification, location, and quantification of all oak resources on the property:
 - Oak woodlands shall be mapped and assessed in accordance with the CDFG 2009 *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* and subsequent updates, and the *List of Vegetation Alliances and Associations* (CDFG 2010) and subsequent updates;
 - Data collected for individual native oak trees and Heritage Trees shall include: location, species, trunk diameter (dbh), height, canopy radius, and general health and structural condition;
- Identification and quantification of project-related impacts to oak resources;
- Measures identifying how specific trees and woodlands (or retained portions thereof) shall be protected during development and related work;

- Proposed actions to mitigate impacts to oak resources, consistent with the requirements included in this ORMP:
 - For replacement planting, the report shall provide detail regarding the quantity, location, planting density, and acorn/seedling source consistent with the definition of Replacement Planting included in this ORMP;
 - For conservation easement placement/acquisition and/or land acquisition in fee title, the report shall provide documentation of easement placement on-site and/or documentation of easement or land acquisition off-site to the satisfaction of the County;
 - For in-lieu fee payment, the report shall document the quantity of impacts (acreage of oak woodlands and/or total diameter inches of individual native oak trees/Heritage Trees) and the total in-lieu fee payment necessary (presented separately for oak woodlands, individual native oak trees, and Heritage Trees, where applicable);
- Identification of responsible parties;
- Identification of maintenance, monitoring, and reporting requirements;
- Analysis of non-PCA conservation easement areas, where applicable;
- A site map(s) depicting the location of all oak woodlands, individual native oak trees, and Heritage Trees and the location of all proposed project-related improvements (including, but not limited to, the limits of grading, fuel modification/defensible space areas, and above- and below-ground infrastructure). The site map(s) shall also clearly identify impacted oak resources.

2.6 Mitigation Program Flexibility

This ORMP provides for flexibility in meeting oak resources mitigation requirements. An applicant for a development project may comply with the provisions of this ORMP by combining mitigation options, except as specified for replacement planting to mitigate oak woodland impacts. Off-site mitigation may be accomplished through private agreements between the applicant and another private party consistent with the standards included in this ORMP and subject to approval by the County. When dedication of off-site conservation easements outside of PCAs is proposed by a developer, the proposed site shall be prioritized based on the standards set forth in this ORMP (Section 4.0). A developer that dedicates a County-approved conservation easement is not subject to the acquisition component of the in-lieu fee, but is subject to the management component and monitoring component of the fee.

3.0 In-Lieu Fee

The methodology for determining the in-lieu fee for impacts to individual native oak trees and oak woodlands is provided in detail in Appendix B. In general, the in-lieu fee for oak woodlands is based on the costs of acquisition of land and conservation easements, along with management, monitoring, and administrative costs. For individual native oak trees, the in-lieu fee is based on an inch-for-inch replacement approach that accounts for costs associated with purchasing and planting 1-inch of trunk diameter.

3.1 Oak Woodlands

As noted, the in-lieu fee for impacts to oak woodlands is based on the costs of acquisition of land and conservation easements, along with management, monitoring, and administrative costs. A breakdown of costs per acre is provided in Table 4.

**Table 4
Oak Woodland In-Lieu Fee**

Activity	Cost per Acre
Acquisition	\$4,400
Initial Management and Monitoring	\$2,300
Long-Term Management and Monitoring	\$875
Administration	\$379
Total Cost per Acre	\$7,954

Source: New Economics & Advisory Draft Oak Resource In-Lieu Fee Nexus Study (June 2015)

The in-lieu fee payment option for impacts to oak woodlands shall be made at the ratio outlined in Table 3, which provides for a variable mitigation ratio depending on the percentage of oak woodland impacted on a project site. The County shall deposit all oak woodland in-lieu fees into its Oak Woodland Conservation Fund, which shall be used to fund the acquisition of land and/or conservation easements from willing sellers as described in Section 4. This fund shall also be used for ongoing monitoring and management activities, including but not limited to fuels treatment, weed control, periodic surveys, and reporting. It is anticipated that conservation easements and mitigation lands would be held by a land conservation organization; therefore, ongoing monitoring and management activities would be conducted by such organizations. Funding to support the negotiation of the purchase price and oversight of the land transaction is included in the management component of the oak woodland in-lieu fee.

As costs change over time, there will be a need to adjust the fee to closely match future cost increases or decreases. Appendix B details the fee adjustment approach. A report regarding fee adjustments will be included in a report to be submitted to the Planning Commission and Board of Supervisors every other March, as described in Appendix A. The first fee adjustment study would occur at least 12 months after adoption of this ORMP.

3.2 Oak Trees

For individual native oak trees, the in-lieu fee is 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 seven years. Specifically, a 15-gallon size native oak tree is assumed to represent one inch of trunk diameter. The acquisition and planting component of the per-inch mitigation fee is then based on the costs to purchase and plant one 15-gallon native oak tree. To determine the per-inch fee, the median price of 15-gallon oak trees was calculated from a survey of eight nurseries in El Dorado County and the surrounding region. This price was then doubled to account for costs associated with planting. Doubling the per-tree cost to account for purchasing and planting a tree (inclusive of labor and materials) is a standard approach in the landscape/habitat restoration industry. The management and monitoring component of the per-inch mitigation fee is based on annual costs associated with maintaining planted trees for a period of seven years. Data for this fee was derived from cost estimates provided by a habitat restoration contracting firm, Habitat Restoration Sciences, Inc. Based on this analysis, the per-inch individual native oak tree mitigation fee was calculated to be \$186.00. In the case of Heritage Trees, the per-inch mitigation fee shall be \$558.00 (3:1 ratio). Table 5 summarizes the cost breakdown associated with the in-lieu fee for individual native oak trees.

Table 5
Individual Oak Tree In-Lieu Fee

Activity	Cost per Inch
Acquisition and Planting	\$120
Initial Management & Monitoring (Years 1-7)	\$56.70
Administration (5%)	\$8.84
Total Cost per Inch (rounded to nearest whole dollar)	\$186

Source: New Economics & Advisory Draft Oak Resource In-Lieu Fee Nexus Study (June 2015)

As described in this ORMP, this per-inch mitigation fee may be paid as mitigation for impacts to individual native oak trees or Heritage Trees. The per-inch fee shall be multiplied by the total number of trunk diameter inches removed (dbh). The County shall deposit all oak tree in-lieu fees into its Oak Woodland Conservation Fund and shall use collected per-inch mitigation fees for native oak tree planting projects or may use such funds to acquire oak woodland conservation easements, with documentation that the number of diameter inches meets those for which mitigation fees have been paid.

As costs change over time, there will be a need to adjust the fee to closely match future cost increases or decreases. Appendix B details the fee adjustment approach. A report regarding fee adjustments will be included in a report to be submitted to the Planning Commission and Board of Supervisors every other March, as described in Appendix A. The first fee adjustment study would occur at least 12 months after adoption of this ORMP.

4.0 Priority Conservation Areas

4.1 Identification of Priority Conservation Areas

Figure 2 identifies the areas in which acquisition of land or conservation easements from willing sellers shall be prioritized using the Oak Woodland Conservation Fund generated by the payment of the in-lieu fees described above. These areas were identified using the FRAP classification of oak woodland habitat in the county. After those areas were mapped, the areas were narrowed down to large expanses consisting of 500 acres or more. Those large expanses were further narrowed to lands where oak woodland habitat would not likely undergo substantial fragmentation and oak woodland conservation would be consistent with the 2004 General Plan land use designations. Areas specifically excluded were lands within Community Regions and Rural Centers and lands designated Low Density Residential. These resulting areas are classified as Priority Conservation Areas (PCAs).

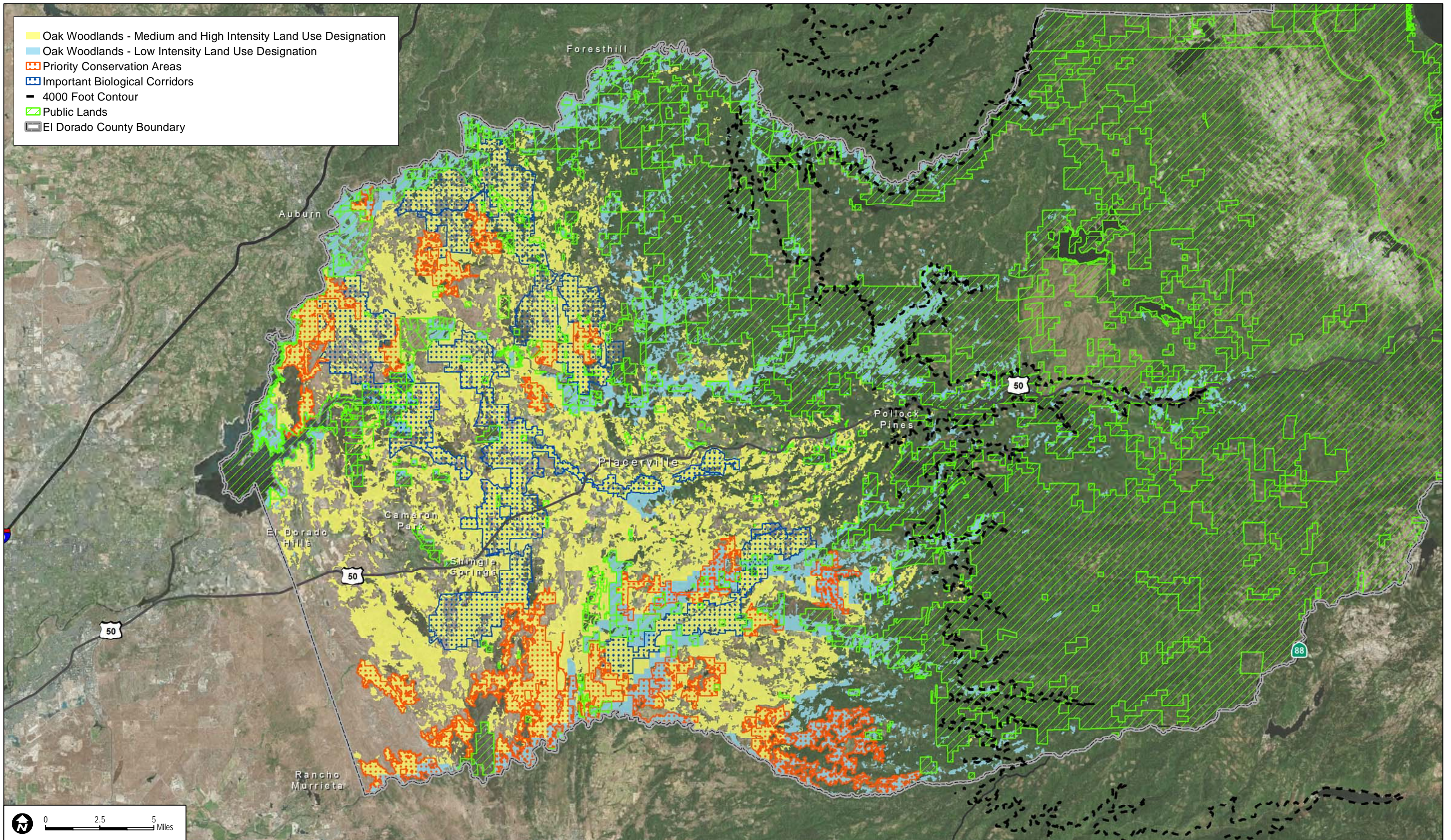
The 500-acre PCAs are generally made up of 40-acre and larger privately owned parcels. A breakdown of parcel sizes within the large expanses is shown in Table 56. A more detailed description of the mapping process and data used to identify PCAs is provided in Appendix A. Figure 2 also shows existing public lands with oak woodlands contiguous to the PCAs.

**Table 6
PCA Parcel Statistics**

Parcel size (Acres)	Number of Parcels	Acres
40-60	170	7,666.3
60.1-120	155	13,176.7
120.1-340	175	31,674.3
340.1+	29	13,535.5
Total	529	66,052.8
	Avg. Size	124.9
	Median Size	84.3

Oak woodland offered as mitigation must be configured in such a manner as to best preserve the integrity of the oak woodland ecosystem. Priority should be given to conserving oak woodland habitat within PCAs, particularly areas that are adjacent to existing woodlands lying west of the National Forest within the Important Biological Corridor overlay, under a conservation easement, on public lands, in open space lands, in riparian corridors, or ecological preserves.

Oak woodlands within the PCAs will be conserved to mitigate for losses of oak woodlands. Prioritization will be given to areas that provide a diversity of oak woodland types. The acreage of oak woodlands conserved shall be based on the quantity of those impacted as a result of new development.



DUDEK SOURCE: Bing Maps 2014; FRAP 2006; El Dorado County 2014

8229-01 Draft Oak Resources Management Plan

FIGURE 2
Priority Conservation Areas, Oak Woodlands, and Public Lands in El Dorado County

This ORMP establishes a strategy for conserving oak woodland habitat to offset the effects of increased habitat loss and fragmentation elsewhere in the county. Identification of PCAs and standards for prioritizing conservation of oak woodlands outside of PCAs (Section 4.3) fulfills the oak woodlands portion of the conservation requirements outlined in General Plan Policy 7.4.2.8.

4.2 Management of PCAs

Existing oak woodlands within the PCAs identified as mitigation for project impacts, whether on or off a project site, will be protected from further development through a conservation easement granted to the County or a land conservation group approved by the County or by acquisition in fee title by a land conservation group. Management activities would be conducted by land conservation organizations and may include, but are not limited to, one or more of the following activities, as determined appropriate and/or necessary through monitoring of the sites: inspections, biological surveys, fuels treatment to reduce risk of wildfire and to improve habitat, weed control, database management, and mapping. Agricultural use (i.e., grazing) shall be allowed in conserved oak woodlands as long as the activity occurred prior to the establishment of the conservation easement, the spatial extent of the agricultural use is not expanded on conserved lands, and the agricultural use does not involve active tree harvest or removal (e.g., fuelwood operations, land clearing for crop planting, etc.).

4.3 Conservation Outside of PCAs

The PCAs have been delineated to prioritize the acquisition of land or oak woodland conservation easements either by the County (using the funds collected in the County's Oak Woodland Conservation Fund) or privately by developers. However, acquisition of land or oak woodland conservation easements outside of the PCAs may also occur. The following criteria shall be used for selecting potential oak woodlands conservation lands or easements outside of PCAs, consistent with General Plan Policy 7.4.2.8 (D):

- Location within IBCs;
- Location within other important ecological areas as identified in the Initial Inventory and Mapping (June 2010);
- Woodlands with diverse age structure;
- Woodlands with large trees and dense canopies;
- Opportunities for active land management to be used to enhance or restore natural ecosystem processes;
- Potential to support special-status species;
- Connectivity with adjacent protected lands;
- Parcels that achieve multiple agency and community benefits;
- Parcels that are located generally to the west of the Eldorado National Forest; and
- Parcels that would preserve natural wildlife movement corridors such as crossings under major roadways (e.g., U.S. Highway 50 and across canyons).

Land or conservation easement acquisition as mitigation of oak woodland impacts that occurs outside of PCAs shall occur on minimum contiguous habitat blocks of 5 acres (the acquired land or conservation easement shall be contiguous to or shall create a contiguous area of no less than 5 acres of oak woodland in conserved or open space status (e.g., parks, national forest, other conserved oak woodlands on private property)). For transactions where land is acquired or a conservation easement outside of the PCAs is negotiated between a developer and a private seller, an analysis of the proposed oak woodland conservation area shall be performed by a qualified professional to demonstrate that the proposed conservation area is of equal or greater biological value as the oak woodland proposed to be removed. The analysis of conservation areas shall be included as a component of an oak resources technical report.

Should the County elect to purchase land or oak woodlands conservation easements outside of PCAs using funds from its Oak Woodland Conservation Fund, an analysis of the proposed oak woodland conservation area shall be performed by a qualified professional to determine its suitability in meeting the criteria listed above.

4.4 Conservation Easements

Where the mitigation requirements of this ORMP are met through conservation easements for oak woodlands, whether within or outside of PCAs, the conservation easement shall be granted in perpetuity to the County or a land conservation group approved by the County. The easement shall be provided on a form approved by the County and shall be recorded with the County Clerk/Recorder prior to issuance of a grading or building permit, filing of a parcel or final map, or otherwise commencing with the project.

4.5 Deed Restrictions

Where the mitigation requirements of this ORMP are met through deed restrictions for oak woodlands, whether within or outside of PCAs, the deed restriction shall commit the property to oak woodland conservation use in perpetuity. The deed restriction shall be recorded with the County Clerk/Recorder prior to issuance of a grading or building permit, filing of a parcel or final map, or otherwise commencing with the project.

5.0 Application of ORMP to Development Review Process

Determination of the applicability of the ORMP to a development project shall be made as follows:

1. Planning staff and applicant determine if oak resources exist on the property and if the proposed project would impact any of the oak resources.
2. Oak resources are mapped, quantified, and categorized (oak woodland, individual native oak tree, and/or Heritage Tree) by a qualified professional hired by the applicant and documented in an oak resources technical report.
3. Oak resources impacts are quantified in the oak resources technical report. Oak resources impacts are calculated by identifying all disturbed areas as proposed, including:
 - a. Roads, driveways, and access drives;
 - b. Graded areas for building pads, parking lots, staging areas, and other improvements; and
 - c. Other disturbed areas resulting in oak resources impacts including septic system leach fields, above- and below-ground utilities, and defensible space vegetation removal for new construction.
4. The proposed oak woodland impact area is compared with the total on-site oak woodland area to determine the appropriate mitigation ratio.
5. Impacts to individual native oak trees and/or Heritage Trees are determined and the sum of impacted trunk diameter (dbh) calculated.
6. If applicable, the applicant proposes mitigation for impacts to oak woodlands in an oak resources technical report by one of the following mechanisms:
 - a. Deed restriction and/or conservation easement dedication (on-site), conservation easement acquisition (off-site), acquisition in fee title by a land conservation organization (on-site and/or off-site);
 - b. In-lieu fee payment at the ratio determined by percentage of on-site oak woodland impact and based on the currently-adopted per-acre fee amount;
 - c. Replacement planting on-site within an area subject to a deed restriction or conservation easement;
 - d. Replacement planting off-site within an area subject to a conservation easement or acquisition in fee title by the County or a County-approved land conservation organization; or
 - e. A combination of two or more of the above provisions.

In no case shall replacement planting exceed 50 percent of oak woodland mitigation requirement.

7. If applicable, the applicant proposes mitigation for impacts to individual native oak trees and/or Heritage Trees in an oak resources technical report by one of the following mechanisms:

- a. Replacement planting on-site within an area subject to a deed restriction or conservation easement;
 - b. Replacement planting off-site within an area subject to a conservation easement or acquisition in fee title by the County or a County-approved land conservation organization;
 - c. In-lieu fee payment for all diameter inches removed (dbh), or 3 times the total diameter inches removed for Heritage Trees, and based on the currently-adopted per-inch fee amount; or
 - d. A combination of two or more of the above provisions.
8. Payment of applicable in-lieu fees and establishment of any required deed restrictions and/or granting of any required conservation easements and/or land acquisition in fee title shall be required as a condition of approval of all discretionary permits for which these provisions apply, and shall be completed prior to issuance of a grading or building permit, filing of a parcel or final map, or otherwise commencing with the project. The payment of in-lieu fees may be phased to reflect the timing of the oak resources removal/impact. For phasing, permits issued for oak resources removal shall only be for the area covered by the fee payment.
 9. Payment of in-lieu fees and establishment of any required deed restrictions and/or granting of any required conservation easements and/or land acquisition in fee title, if necessary, shall be completed prior to issuance of a building or grading permit for ministerial projects.

6.0 Definitions

For the purposes of this ORMP, the following terms and phrases shall have the meanings respectively ascribed to them by this section:

Agricultural Conversion: As defined by General Plan Policy 7.1.2.7.

Agricultural Cultivation/Operations: As defined by General Plan Policy 8.2.2.1.

Agricultural Lands: As defined by General Plan Policies 2.2.1.2 and 8.1.1.8, and further, Policy 8.2.2.1.

Arborist: A person certified by the International Society of Arboriculture (ISA) that provides professional advice regarding trees in the County.

CAL FIRE: California Department of Forestry and Fire Protection.

Commercial Firewood Cutting: Fuel wood production where a party cuts firewood for sale or profit.

Conservation Easement: An easement granting a right or interest in real property that is appropriate to retaining land or water areas predominately in their natural, scenic, open, or wooded condition; retaining such areas as suitable habitat for fish, plants, or wildlife; or maintaining existing land uses.

For conservation easement dedication (on-site) or acquisition (off-site) as mitigation for oak woodland impacts, a conservation easement to the satisfaction of County Counsel and the Development Services Director shall be required to ensure the long term maintenance and preservation of oak woodlands. The conservation easement shall provide for the preservation of the designated area in perpetuity and shall include such terms, conditions, and financial endowments for monitoring and management deemed necessary by the County to ensure the long term preservation of the oak woodland within the easement area. The conservation easement shall be in favor of the County or a County-approved conservation organization.

Construction/Disturbance Area: Any area in which movement of earth, alteration in topography, soil compaction, disruption of vegetation, change in soil chemistry, and any other change in the natural character of the land occurs as a result of site preparation, grading, building construction or any other construction activity.

Deed Restriction: Private agreements that restrict the use of the real estate and are listed in the deed. Restrictions travel with the deed, and cannot generally be removed by new owners.

Defensible Space: The area within the perimeter of a parcel, development, neighborhood or community where basic wildland fire protection practices and measures are implemented, in order to defend against encroaching wildfires or provide for people to escape structure fires.

Defensible space is required by any person who owns, leases, controls, operates or maintains a building or structure in or adjoining any mountainous area, forest-covered lands, brush-covered

lands, grass-covered lands or any land that is covered with flammable material and is within the State Responsibility Area. PRC 4291 requires 100 feet of Defensible Space (or to the property line if less than 100 feet) from every building or structure that is used for support or shelter of any use or occupancy.

Diameter at Breast Height (dbh): The measurement of the diameter of a tree in inches, specifically four (4) feet six (6) inches above natural grade on the uphill side of the tree. In the case of trees with multiple trunks, the diameter of all stems (trunks) at breast height shall be combined to calculate the diameter at breast height of the tree.

Fire Safe Plan: Defined in the El Dorado County General Plan (Policy 6.2.2.2) as a plan prepared by a Registered Professional Forester (RPF) and approved by the local Fire Protection District and/or California Department of Forestry and Fire Protection. The plan is prepared to demonstrate that development can be adequately protected from wildland fire hazard in areas of high and very high wildland fire hazard or in areas identified as “urban wildland interface communities within the vicinity of Federal lands that are a high risk for wildfire,” as listed in the Federal Register of August 17, 2001.

Habitat: The physical location or type of environment in which an organism or biological population lives or can be found.

Heritage Trees: Any live native oak tree of the genus *Quercus* (including blue oak (*Quercus douglasii*), valley oak (*Quercus lobata*), California black oak (*Quercus kelloggii*), interior live oak (*Quercus wislizeni*), canyon live oak (*Quercus chrysolepis*), Oregon oak (*Quercus garryana*), oracle oak (*Quercus x morehus*), or hybrids thereof) with a single main trunk measuring 36 inches dbh or greater, or with a multiple trunk with an aggregate trunk diameter measuring 36 inches or greater.

Impact: For individual native oak trees, the physical destruction, displacement or removal of a tree or portions of a tree caused by poisoning, cutting, burning, relocation for transplanting, bulldozing or other mechanical, chemical, or physical means. For oak woodlands, tree and land clearing associated with land development, including, but not limited to, grading, clearing, or otherwise modifying land for roads, driveways, building pads, landscaping, utility easements, fire-safe clearance and other development activities.

In-lieu Fee: Cash payments that may be paid into the County’s Oak Woodland Conservation Fund by an owner or developer as a substitute for deed restriction or conservation easement or replacement planting. In-lieu fee amounts for individual native oak trees, Heritage Trees, and oak woodlands are presented in this ORMP and may be adjusted by the County over time to reflect changes in land values, labor costs, and nursery stock costs.

Individual Native Oak Trees: Any live native oak tree of the genus *Quercus* (including blue oak (*Quercus douglasii*), valley oak (*Quercus lobata*), California black oak (*Quercus kelloggii*), interior live oak (*Quercus wislizeni*), canyon live oak (*Quercus chrysolepis*), Oregon oak (*Quercus garryana*), oracle oak (*Quercus x morehus*), or hybrids thereof) with a single main trunk measuring greater than 6 but less than 36 inches dbh, or with a multiple trunk with an aggregate trunk diameter measuring greater than 10 but less than 36 inches dbh.

Monitoring Report: A report prepared by a qualified professional documenting site observations and replacement planting survival totals for oak resources mitigation efforts. A Final Monitoring Report is one prepared at the end of the 7-year maintenance and monitoring period that summarizes replacement planting survival totals. A copy of the Final Monitoring Report shall be submitted to the County.

Oak Resources: Collectively, oak woodlands, individual native oak trees, and Heritage Trees.

Oak Resources Impacts: For individual native oak trees and Heritage Trees, removal or actions that cause the death of the tree shall constitute an impact. For oak woodlands, the oak woodland acreage that occurs within project-related disturbance areas shall be considered impacted.

Oak Tree Removal Permit: A permit issued by the County allowing removal of individual native oak trees not located within an oak woodland. An oak resources technical report shall accompany any tree removal permit application submitted to the County. Conditions of approval may be imposed on the permit. If a tree removal permit application is denied, the County shall provide written notification, including the reasons for denial, to the applicant. Oak tree removal permit processing and approval will be conducted concurrently with the environmental review process for discretionary projects or concurrent with other permit review and processing for ministerial projects (e.g., building permits).

Oak Woodlands: An oak stand with a greater than 10 percent canopy cover or that may have historically supported greater than 10 percent canopy cover (California Fish and Game Code Section 1361).

Oak Woodland Removal Permit: A permit issued by the County allowing removal of oak trees that are a component of an oak woodland. An oak resources technical report shall accompany any oak woodland removal permit application submitted to the County. Conditions of approval may be imposed on the permit. If an oak woodland removal permit application is denied, the County shall provide written notification, including the reasons for denial, to the applicant. Oak woodland removal permit processing and approval will be conducted concurrently with the environmental review process for discretionary projects.

Qualified Professional: An arborist certified by the International Society of Arboriculture (ISA), a qualified wildlife biologist, or a registered professional forester (RPF).

Qualified Wildlife Biologist: A professional with a BA or BS or advanced degree in biological sciences or other degree specializing in the natural sciences; professional or academic experience as a biological field investigator, with a background in field sampling design and field methods; taxonomic experience and knowledge of plant and animal ecology; familiarity with plants and animals of the area, including the species of concern; and familiarity with the appropriate county, state, and federal policies and protocols related to special status species and biological surveys.

Registered Professional Forester (RPF): A Registered Professional Forester (RPF) is a person licensed by the State of California to perform professional services that require the application of forestry principles and techniques to the management of forested landscapes. RPFs have an understanding of forest growth, development, and regeneration; soils, geology, and hydrology; wildlife and fisheries biology and other forest resources. RPFs are also trained in fire

management and, if involved in timber harvesting operations, have expertise in both forest road design and application of the various methods used to harvest.

Replacement Tree: A tree planted as mitigation for oak resources impacts. Replacement trees include container tree stock (one-gallon or DeePot 40 size) and acorns. If acorns are used, the planting ratio shall be 3:1 as compared with container tree stock. Acorns and container stock shall be locally-sourced (from within El Dorado County).

Sensitive Habitat: In El Dorado County, this includes the following habitat types: montane riparian, valley-foothill riparian, aspen, valley oak woodland, wet meadow, and vernal pools, as defined in the 2004 El Dorado County General Plan EIR.

Woodland Habitats: Biological communities that range in structure from open savannah to dense forest. In El Dorado County, major woodland habitats include blue oak-foothill pine, blue oak woodland, montane hardwood, montane hardwood-conifer, and valley oak woodland.

Attachment E:

**Revised Draft Oak Resources Management Plan,
changes tracked**

1. Introduction

A. Purpose

The Purpose of this 1.0 Introduction

This Oak Resources Management Plan (ORMP) updates and revises the Oak Woodland Management Plan (OWMP) adopted by the El Dorado County Board of Supervisors on May 6, 2008 (El Dorado County 2008). It incorporates more recent oak resources mapping data for the County and reflects policy language changes made during the General Plan Biological Policy Review project conducted in 2015. This ORMP incorporates relevant information included in the 2008 Plan, where applicable, and was prepared in coordination with El Dorado County Community Development Agency staff. It also incorporates public input gathered during project-focused hearings and direction given by the El Dorado County Board of Supervisors.

1.1 Purpose

The purpose of this 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 woodland conservation of its valuable oak woodland resources. Through the OWMP, the County. This ORMP functions as the oak resources component of the County's biological resources mitigation program, identified in General Plan Policy 7.4.2.8. This ORMP identifies areas where 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 that are exempt from mitigation requirements. This 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 easement efforts may be acquired from willing sellers as a means to offset and mitigate the loss or fragmentation of oak woodlands in other focused, and outlines minimum standards for identification of oak woodland conservation areas outside the PCAs. Requirements for monitoring and maintenance of conserved oak woodland areas as a result of implementation of the 2004 El Dorado County General Plan (General Plan). Additionally, the OWMP and identification of allowable uses within conserved oak woodland areas are also included in this ORMP. Lastly, this ORMP provides guidance for voluntary oak woodland and oak tree conservation and management efforts by landowners and land managers. Lastly, the OWMP sets forth further guidance on General Plan Policy 7.4.4.4 Option A, which includes measures designed to encourage retention of existing oak canopy in areas planned for development.

Loss and fragmentation of wildlife habitat, including oaks and oak woodlands, was identified in the 2004 General Plan Environmental Impact Report (EIR) as a significant impact that would result from development under the General Plan. The County identified several mitigation measures which would reduce the severity of these impacts, although not to below a less than significant level of significance. These mitigation measures included Policies 7.4.4.4, 7.4.4.5 and 7.4.5.2, and the related implementation Implementation Measure CO-P. During the General Plan Biological Policy Review project conducted in 2015, these policies were edited and consolidated into one single policy (Policy 7.4.4.4). Implementation Measure CO-P was also

modified during this process. The revised language in Policy 7.4.4.4 states that mitigation requirements for impacts to oak resources (oak woodlands, individual native oak trees, and Heritage Trees) shall be outlined in this ORMP. Revised Implementation Measure CO-P directs the County to develop and adopt an ORMP that addresses the following:

~~Measure CO-P directs the County to develop and adopt an Oak Resources Management Plan that addresses the following:~~

- ~~• Mitigation standards outlined in Policy 7.4.4.4;~~
 - ~~• Thresholds of significance for the loss of oak woodlands resources impacts;~~
 - ~~• Requirements for tree surveys and Definitions of exempt projects and actions;~~
 - ~~• Technical report requirements;~~

Oak resources mitigation plans for discretionary projects;

- ~~• Replanting options and replacement standards;~~
- ~~• Heritage/Landmark Tree protection mitigation standards; and~~
- ~~• An Oak Tree Preservation ordinance as outlined in Policy 7.4.5.2.~~
 - Oak resources mitigation monitoring and reporting requirements.

~~An Oak Tree Preservation~~Resources Conservation ordinance that incorporates the standards outlined in ~~Policy 7.4.5.2 and Heritage and Landmark Tree protection standards~~this ORMP will be developed ~~after their conjunction with adoption of the OWMP~~ORMP.

At the state level, the Oak Woodlands Conservation Act of 2001 recognizes the importance of private land stewardship in conserving oak woodlands. -The legislation established the California Oak Woodlands Conservation Program (COWCP), the mission of which is to “conserve the integrity and diversity of oak woodlands across California’s working landscapes through incentives and education.” -The COWCP provides technical and financial incentives to private landowners to protect and promote biologically functional oak woodlands.

~~The OWMP~~This ORMP serves multiple purposes. It defines the County’s conservation strategy for oak ~~woodland~~ resources and ~~implements Option B of Policy 7.4.4.4.~~ provides a framework for mitigating impacts to oak resources. It also ~~partially~~ complies with Implementation Measure CO-P; and constitutes the oak portion of the County’s ~~Integrated Natural Resources Management~~biological resources mitigation program (General Plan (INRMP)- Policy 7.4.2.8). Finally, it ~~will establish~~establishes a plan for voluntary conservation that landowners, the County, and others can use to seek grants and cost-sharing from ~~State~~state and ~~Federal~~federal programs for oak woodland conservation in El Dorado County.

B.1.2 Goals and Objectives of Plan

The ~~OWMP~~ORMP goals are guided by two General Plan Objectives:- Objective 7.4.2 and Objective 7.4.4. General Plan Objective 7.4.2 states: *Identify and Protect Resources:* “Identification and protection, where feasible, of critical fish and wildlife habitat including deer

winter, summer, and fawning ranges; deer migration routes; stream and river riparian habitat; lake shore habitat; fish spawning areas; wetlands; wildlife corridors; and diverse wildlife habitat.”

General Plan Objective 7.4.4 states: *Forest and Oak Woodland, and Tree Resources*: “Protect and conserve forest and oak woodland, and tree resources for their wildlife habitat, recreation, water production, domestic livestock grazing, production of a sustainable flow of wood products, and aesthetic values.”

The following goals are set forth by the ~~OWMP~~ General Plan are met in this ORMP:

- ~~• Mitigate oak canopy removal by providing flexibility through a range of on site and off-site mitigation alternatives;~~
- ~~• Establish a Conservation Fund In-Lieu Fee that is sufficient to fully fund the mitigation program;~~
- ~~• Identify standards for determining oak woodland and native oak tree impacts, outline impact mitigation requirements and options, identify technical report submittal requirements, and outline impact mitigation monitoring and reporting requirements;~~
- ~~• Define Heritage Trees and identify impact mitigation requirements;~~
- ~~• Provide mitigation alternatives for impacts to oak resources consistent with state-level requirements;~~
- ~~• Provide a flexible framework for oak resources mitigation via on-site and off-site mechanisms, including an in-lieu fee payment program;~~
- ~~• Develop an oak woodland in-lieu fee and an individual native oak tree-based in-lieu fee;~~
- Identify Priority Conservation Areas (PCAs) within large expanses of contiguous oak woodland habitat where land or conservation easements may be acquired from willing sellers to offset the effects of increased habitat loss and fragmentation elsewhere;
- ~~• Focus conservation easement acquisition efforts within areas not currently fragmented and which are unlikely to become fragmented through implementation of the General Plan;~~
- ~~• When weighing acquisition opportunities for conservation easements, generally maintain the relative acreages of all five oak woodland California Wildlife Habitat Relationship (CWHR) types (Valley Oak Woodland, Blue Oak Woodland, Blue Oak Foothill Pine, Montane Hardwood Woodland, and Montane Hardwood Conifer Woodland), but emphasize conservation of Valley Oak Woodlands, considered a “sensitive habitat” due to its relative rarity in the county;~~
- ~~• Encourage voluntary conservation and management of oak woodlands, including sustainable ranching and farming operations within working landscapes;~~
- ~~• Provide incentives (e.g., grants or cost sharing for fuels/fire risk management) for the voluntary protection of oak woodlands providing superior wildlife values on private land (COWCP legislative goal);~~

- ~~Provide oak woodland conservation guidance to private landowners and County planners through education and outreach (COWCP goals);~~
- ~~Identify minimum standards under which oak woodland conservation may occur outside of identified PCAs;~~
- Enhance oak woodland conservation by connecting acquisitions from willing sellers with existing open space, including publicly-owned lands that are managed for oak woodland habitat values (e.g., ecological preserves, recreation lands, rangelands, or natural resource areas) consistent with the County’s open space conservation goals (Goal 7.6; Policy 7.6.1.1); and
- ~~Establish a database inventory of interested buyers and willing landowners wishing to participate in oak woodland acquisition and management mitigation options (Policy 7.4.2.8).~~

C.1.3 Oak Woodland Habitat Resources in El Dorado County

1.3.1 Oak Woodlands

The term “oak woodland” is defined in the ~~Oak Woodland~~Woodlands Conservation Act (Article 3.5 (commencing with Section 1360) of Chapter 4 of Division 2 of the Fish and Game Code ~~§1361~~) as “an oak stand with a greater than ten percent canopy cover or that may have historically supported greater than ten percent canopy cover.” For the purposes of this ~~OWMP~~ORMP, the conservation focus is on existing oak woodlands. ~~The General Plan uses the term “oak woodland” interchangeably and in the same context as “oak canopy.” For the purposes of mitigation, measurement of oak canopy shall apply.~~

~~The OWMP~~This ORMP addresses the same study area (below 4,000 feet elevation) and same categories of oak woodlands (California Fire and Resource Assessment Program, or (FRAP)) as were addressed in the 2008 Oak Woodland Management Plan. These categories of oak woodland were also addressed in the 2004 General Plan. ~~The General Plan EIR using FRAP data from 2002. More recent oak woodland distribution data for El Dorado County available via FRAP (2006) identifies five~~six oak woodland types, which are listed in Table 1 below, along with the acreage of each category found within the ~~OWMP~~ study area. ~~A sixth woodland type is Valley Foothill Riparian which may include Fremont cottonwood, willow and valley oak. Valley Foothill Riparian habitats in which valley oaks are the dominant tree species are considered oak woodlands under the OWMP. Both Valley Oak Woodland and Valley Foothill Riparian are designated as “sensitive habitats” in the General Plan EIR. Less than 3,500 acres of Valley Oak Woodland and none of the Valley Foothill Riparian appears on the FRAP mapping for El Dorado County. ORMP study area. Less than 3,500 acres of valley oak woodland is mapped for El Dorado County, which is designated as a “sensitive habitat” in the General Plan EIR. Finally, while coastal oak woodland is identified in the 2006 FRAP vegetation data set for the ORMP planning area, its presence is unlikely given 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 2006 FRAP data set and the area is likely another oak woodland type.~~

**Table 1:
Acreage of Oak Woodlands Woodland Types in OWMP Studythe ORMP Planning Area
(2006 FRAP Data)**

Oak Woodland Category Type	Abbreviation CWHR Code	Acreage	% of TotalPercent
Blue Oak Woodland oak woodland	BOW	42,400 616	(17) .0 %
Blue Oak Foothill Pine oak-foothill pine	BOP	12,900 915	(5) .2 %
Coastal oak woodland	COW	13	<0.1%
Montane Hardwood Woodland hardwood	MHW	155,900 157,455	(63) 62.8 %
Montane Hardwood-Conifer Woodland hardwood-conifer	MHC	34,200 322	(14) 13.7 %
Valley Oak Woodland oak woodland	VOW	3,400 434	(1) .4 %
Total Oak Woodland in Study Area:		248,800250,755	(100)100%

A thorough discussion of oak woodland habitat identification and values is ~~contained~~presented in Appendix A.

D. 1.3.2 Oak Trees

There are six primary native oak tree species in El Dorado County, including blue oak (*Quercus douglasii*), valley oak (*Quercus lobata*), California black oak (*Quercus kelloggii*), interior live oak (*Quercus wislizeni*), canyon live oak (*Quercus chrysolepis*), and Oregon 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.

1.4 Economic Activity, Land, and Ecosystem Values of Oak WoodlandsResources

Agriculture and recreation-based tourism are important economic generators in El Dorado County. ~~Oak woodlandsresources~~ provide value for these activities. ~~Oak woodlands provide, including forage value for ranching, and soil retention and watershed function benefits that contribute to the agricultural activities, and aesthetic qualities of value for agri-tourism.~~ ~~Oak woodlandsresources~~ contribute to soil retention and provide watershed benefits, which have benefits to the agricultural community. ~~Deer and other game species are dependent on oak woodland habitat and provide recreational hunting opportunities, which can generate revenues for ranching land owners through hunting leases.~~ ~~Oak woodlandsresources~~ contribute to a high-quality visit for recreation tourists, whose activities ~~among oak woodlands could~~may include camping, fishing, hiking, bird-watching, and equestrian trail riding.

Studies have also concluded that the presence of oak woodlands on properties enhances resources enhances property value by providing shade, wind breaks, sound absorption, land use buffers, erosion control, and aesthetic beauty.

Oak woodlands resources also contribute to healthy lands and watersheds.– They do this by providing habitat for animals, maintaining water quality, and improving soil characteristics. Oak woodlands have been acknowledged in studies to contributing to the control of climate effects. Oak resources have also been identified as a valuable component in greenhouse gas reduction, trapping and storing atmospheric carbon dioxide.

More information regarding economic activities, land values, and ecosystem values are available presented in Appendix A.

E. 1.5 State-level Regulations

California Oak Woodlands Conservation Act

In September, 2004, the state Public Resources Code was amended to require (PRC) Section 21083.4 requires a county to determine (as part of its CEQA project review required under the California Environmental Quality Act) whether a project may result in conversion of oak woodlands that will have a significant effect on the environment (PRC 21083.4). If it determines that a project may have a significant effect, a county shall require one or more oak woodland 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 seven 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. This plan ORMP incorporates a range of mitigation alternatives which that conform to these requirements.

2. Policy 7.4.4.4

A. No state-level regulations exist that require mitigation for impacts to individual oak trees that occur outside of oak woodlands; however, this ORMP identifies mitigation requirements for individual native oaks trees and Heritage Trees to meet the goals and objectives of the General Plan.

2.0 Oak Resources Impact Mitigation Requirements

The following sections outline mitigation requirements for impacts to oak resources. These mitigation requirements meet the goals and objectives of the General Plan and fulfill the requirements of General Plan Policy 7.4.4.4.

2.1 Applicability and Exemptions

~~Policy 7.4.4.4 of the 2004 General Plan applies~~The oak resources impact mitigation requirements outlined in this section apply to all new development projects or actions that would result in soil disturbance (see Appendix C for complete policy) on parcels that meet one of the following criteria:

- ~~• Less than or equal to one acre with at least 10% total~~impacts to oak woodlands and/or individual native oak trees, including Heritage Trees. Specifically, oak woodland canopy cover; or
- ~~• Greater than one acre with at least 1% oak woodland canopy cover.~~

~~Development, as affected by this Plan (OWMP),~~impact mitigation is required for any structureaction requiring discretionary development entitlements or approvals from El Dorado County. Individual native oak tree and Heritage Tree impact mitigation is required for any action requiring a building permit or grading activity requiring a grading permit, issued by El Dorado County and/or any action requiring discretionary development entitlements or approvals from El Dorado County. Activities that do not require one of these two permit types, such as agricultural grading requiring an agricultural grading permit, tree removal for safety reasons, or the clearing of land for purposes other than construction or grading, or discretionary approvals do not trigger the provisions of this plan. The following activities are specifically impact mitigation requirements included in this ORMP for oak woodlands or for individual native oak trees. However, all impacts to Heritage Trees are subject to the mitigation requirements contained herein. Oak woodland impacts or removal of individual native oak trees (excluding Heritage Trees) associated with the following projects or actions are exempted from Policy 7.4.4.4the mitigation requirements included in this ORMP:

- ~~• agricultural cultivation; and~~
- Projects or actions occurring on single-family residential lots of 1 acre or less that cannot be further subdivided;
- Actions taken pursuant to a County-an approved Fire Safe Plan necessary to protect for existing structures, or in accordance with defensible space maintenance requirements for existing structures in state responsibility areas (SRA) as identified in California Public Resources Code (PRC) Section 4291 (actions associated with Fire Safe Plans or defensible space areas for new or proposed development are not exempt);

These exemptions are detailed below:

- Actions taken to maintain safe operation of existing utility facilities in compliance with state regulations (PRC 4292-4293 and California Public Utilities Commission (CPUC) General Order 95) (actions associated with development of new utility facilities, including transmission or utility lines, are not exempt);
- Road widening and realignment projects necessary to increase capacity, protect public health, and improve safe movement of people and goods in existing public rights-of-way (as well as acquired rights-of-way necessary to complete the project) where the new alignment is dependent on an existing alignment (new proposed roads within the County Circulation Element and internal circulation roads within new or proposed development are not exempt);
- 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, or within a sphere of influence as defined pursuant to California Government Code §56076;
- Agricultural Cultivation—The removal of native vegetation, including oaks, activities conducted for the purposes of producing or processing plant and animal products or the preparation of land for this purpose is exempt. This is consistent with State PRC 21083.4.;

~~Existing Structure Defensible Space/Fire Safe Measures—The intent of this exemption is to exempt oak tree removal from mitigation in the 100 foot defensible space zone around an existing building or structure. Defensible space, for the purposes of this plan, is the 100 foot area around an existing structure, or to the property line, whichever is closer. Defensible space is required pursuant to Public Resources Code (PRC) 4291 and Title 14 California Code of Regulations (CCR) 1299.~~

~~Fuel modification actions, inside and outside of the 100 foot defensible space zone, are also exempt from Policy 7.4.4.4 mitigation. Examples are actions to ensure the safety of emergency fire equipment and personnel; to allow evacuation of civilians; to provide a point of attack or defense for firefighters during a wildland fire; to prevent the movement of a wildfire from a structure to the vegetated landscape; and/or the maintenance or creation of fuel breaks for fire safety, where no grading permit or building permit is applicable.~~

~~The County encourages the creation of defensible space around existing structures and the provisions of the OWMP are by no means intended to impede the fuels reduction required by law to protect existing structures. However, oak tree removal in the 100-foot defensible space zone, pursuant to PRC 4290 and Title 14 CCR 1270 1276 of the Fire Safe Regulations, and fuel modification actions pursuant to a Fire Safe Plan, inside and outside of the 100-foot defensible space zone for all new development projects, is not exempt from Policy 7.4.4.4 mitigation. The 100-foot defensible space zone, and fuels modification necessary for a Fire Safe Plan, is part of the project footprint and oak canopy removed shall be counted in the project total oak canopy removal. Any oak trees that can be safely retained, even if separated from the oak woodland, will count as oak canopy retained.~~

~~The County further encourages developers and landowners to review the 100-foot defensible space information available from CAL FIRE; specimens of oak trees and native habitat can be retained in the 100-foot defensible space by keeping lower branches of oak trees pruned, removing surface litter, separating trees and shrubs (horizontally), and reducing ladder fuels~~

(vertically separating trees and shrubs). See CAL FIRE's website or brochures for detailed information.

Because of the ability to safely retain some of the oak canopy within the defensible space, when calculating oak tree canopy loss with new subdivisions and parcel maps, an applicant may assume 80% retention of the oak tree canopy within the defensible space area around building pads or sites.

- Agricultural cultivation/operations, whether for personal or commercial purposes (excluding commercial firewood operations);
- Activities occurring on lands in Williamson Act Contracts or under Farmland Security Zone Programs;
- Actions taken during emergency firefighting operations and associated post-fire activities;
- Tree removal permitted under a Timber Harvest Plan approved by CAL FIRE;
- Native oak tree removal when a tree exhibits high failure potential with the potential to injure persons or damage property, as documented in writing by a Certified Arborist or Registered Professional Forester; or
- When a native oak tree, other than a Heritage Tree, is cut down on the owner's property for the owner's personal use.

Additionally, ~~the OWMP~~this ORMP provides for reductions to oak canopy woodland mitigation for affordable housing projects as described below and provides for an exemption for public road safety projects and public utility projects.

Affordable Housing — Development that are not exempted as defined above. Specifically, development projects that propose a minimum of 10 percent of the dwelling units as income restricted affordable units, as defined by California Health and Safety Code §50052.5, 50053, and 50093, shall be granted a reduction in the amount of oak canopy woodland that is required to be protected under Option A, or the amount of fee to be paid under Option B mitigated, as set forth in Table 2. The reduction is to be applied to the mitigation ratio presented in Table 3 and shall only be applied to the residential portion(s) of the proposed project. This reduction for affordable housing projects applies to oak woodland and individual native oak tree impacts and but not to Heritage Tree impacts. In no case shall the mitigation requirement be less than zero.

~~Table 2: Affordable Housing Reduction~~

**Table 2
Affordable Housing Mitigation Reduction**

Affordable Housing Type (Household Income Level)	% Reduction of Percent Oak Canopy Woodland Mitigation Reduction (for portion of project that is income restricted)
Very Low	200%
Lower	100%

**Table 2
Affordable Housing Mitigation Reduction**

Affordable Housing Type (Household Income Level)	% Reduction of Percent Oak Canopy <u>Woodland Mitigation Reduction</u> (for portion of project that is income restricted)
Moderate	50%

Example: -A project proposes 25% of the units to be affordable in the ~~lower~~ Lower income category. -The ~~amount of on-site retention or Conservation Fund In Lieu Fee~~ oak woodland mitigation ratio may be reduced by 25%. -A ~~moderate~~ Moderate income project that provides all units at that income level may reduce the ~~retention and/or fee~~ oak woodland mitigation ratio by 50%. -A project with 20% ~~very low~~ Very Low income units would receive a 40% reduction. (Note: ~~PRC §21083.4(d)~~ provides exemptions for affordable housing projects in urbanized areas for lower income households.)

~~Public Road and Public Utility Projects Exempt from Policy 7.4.4.4~~ — Oak canopy removal necessary to complete County capital improvement projects are exempt from the canopy retention and replacement standards, when the new alignment is dependent on the existing alignment. This exemption applies to road widening and realignments which are necessary to increase capacity, to protect the public’s health, and to improve the safe movement of people and goods in existing public road rights of way, as well as acquired rights of way necessary to complete the project. This exemption shall also apply to removal of oak canopy necessary to comply with the safety regulations of the Public Utilities Commission and necessary to maintain a safe operation of utility facilities. The County shall minimize, where feasible, the impacts to oaks through the design process and right of way acquisition for such projects.

This exemption to the oak canopy retention and replacement standards does not apply to new roads or utility installation, or to internal circulation roads within new development.

B. Replacement Objectives

When determining the amount of *oak* canopy replacement on a parcel, consistency can be achieved by a combination of Policy 7.4.4.4 Options A and B. These replacement objectives may be achieved, subject to County approval, by: woodland mitigation ratio.

1. ~~Replacement planting on-site at a 1:1 canopy surface area ratio; or~~
2. ~~Contributing to the County’s INRMP/Conservation fund at a 2:1 ratio; or~~
3. ~~Acquiring an off-site conservation easement on oak woodlands at a 2:1 ratio; or~~
4. ~~A combination of 1, 2, or 3 above.~~

C. Mitigation Option A

~~Option A sets forth limitations on the amount of oak canopy that may be removed with each project, based on calculations of the percent of oak canopy existing on the subject parcel. Oak~~

canopy must be retained in the amount established in the Table of Policy 7.4.4.4, provided below as Table 3.

~~Table 3: Canopy Retention Requirements from Policy 7.4.4.4~~

2.2 Oak Woodland Permits and Mitigation

The policy of the County is to preserve oak woodlands when feasible, through the review of all proposed development activities where woodlands are present on either public or private property, while at the same time recognizing individual rights to develop private property in a reasonable manner. As such, the County shall require mitigation for impacts to oak woodlands. The following sections outline oak woodland permit and mitigation requirements and Figure 1 outlines the permit and mitigation process.

2.2.1 Oak Woodland Removal Permits

An oak woodland removal permit shall be required for a discretionary project to authorize removal of any trees that are a component of an oak woodland. An oak resources technical report shall accompany any oak woodland removal permit application submitted to the County. The County may impose such reasonable conditions of approval as are necessary to protect the health of existing oak woodlands, the public, and the surrounding property. Oak woodland removal permit review will occur concurrently with the environmental review process for discretionary projects. ~~¶ In addition to findings of consistency with the requirements and standards of this ORMP, the County shall make the following findings before approving an oak woodland removal permit application: is denied, the County shall provide written notification, including the reasons for denial, to the applicant.~~

- The proposed action is consistent with the General Plan; and
- The proposed action would not be detrimental to the public health, safety and welfare, or injurious to the neighborhood; and
- The proposed action is specifically allowed by an oak woodland removal permit pursuant to this ORMP.

An appeal to the fees established through this ORMP shall be in accordance with the appeal procedure set forth in Section 130.22.220 of the County Code.

Commercial firewood cutting operations in oak woodlands shall also require an oak woodland removal permit. In reviewing an oak woodland removal permit application for firewood cutting operations, the County shall consider the following:

- Whether the removal of the tree(s) would have a significant negative environmental impact;
- Whether the proposed removal would not result in clear-cutting, but would 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 oak woodland coverage would be.

Fines shall be issued to any person, firm, or corporation that is not exempt from the standards included in this ORMP who ~~removes oak trees within~~ impacts an oak woodland without first obtaining an oak woodland removal permit. Fines may be as high as three times the current oak woodland in-lieu fee amount. If an oak woodland is impacted without an oak woodland removal permit, in addition to issuing a fine, the County may choose to deny or defer approval of any applications for development of that property for a period of up to 5 years. All ~~shall be subject to the penalties identified in El Dorado County Code Section 13.12.030. Any monies received as~~ fines for illegal oak tree and woodland ~~tree~~ removal shall be deposited in the County's Oak Woodland Conservation Fund.

2.2.2 Oak Woodland Mitigation

In order to incentivize on-site retention of oak woodlands, mitigation for impacts to oak woodlands shall be based on the ratios presented in Table 3.

**Table 3
Oak Woodland Mitigation Ratios**

<u>Percent Existing Canopy Cover of Oak Woodland Impact</u>	<u>Canopy Cover to be Retained Oak Woodland Mitigation Ratio</u>
80-100 50%	60% of existing canopy cover 1:1
60-79	70% of existing canopy cover
40-69	80% of existing canopy cover
20-39	85% of existing canopy cover
10-19	90% of existing canopy cover
1-9 for parcels > 1 acre 50.1-75%	90% of existing canopy cover 1.5:1
75.1-100%	2:1

Oak woodland impacts and mitigation shall be addressed in an oak resources technical report. ~~In addition to retention, Option A requires that removed~~ As presented in Table 3, all of a project's oak canopy-woodland impacts shall be replaced/ mitigated at a 1:1 ratio. The size of the designated where 50 percent or less of on-site oak woodlands are impacted, all of a project's oak woodland impacts shall be mitigated at a 1.5:1 ratio where 50.1 to 75 percent of on-site oak woodlands are impacted, and all of a project's oak woodland impacts shall be mitigated at a 2:1 ratio where greater than 75 percent of on-site oak woodlands are impacted. Non-exempt County road projects shall provide oak woodland mitigation at a ratio of 1:1 regardless of the amount of onsite retention. ~~Mitigation for oak woodland impacts shall be addressed in an oak resources technical report. Options for oak woodland impact mitigation requirements include~~ A deed restriction or conservation easement shall be placed over retained on-site woodlands and those woodlands retained on site shall not be counted towards the impacted amount or towards the

required mitigation. Mitigation for the impacted oak woodlands shall occur at the ratio required under Table 3 using one or more of the following options:

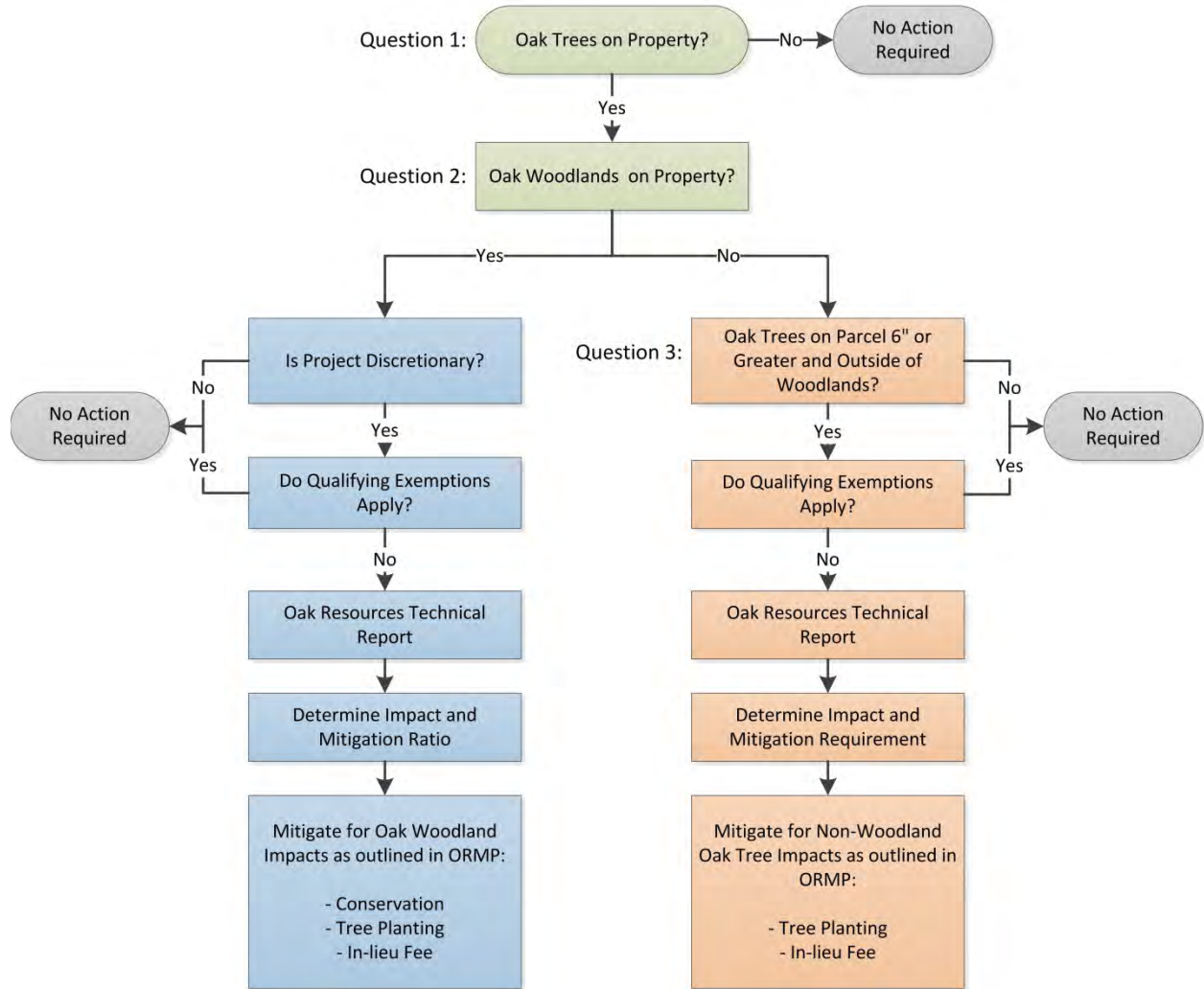
1. Deed restriction ~~(on-site), conservation easement dedication (on-site), and/or conservation easement acquisition (off-site), and/or acquisition in fee title by a land conservation organization (on-site and/or off-site);~~
2. In-lieu fee payment;
3. Replacement planting on-site within an area subject to a deed restriction or conservation easement;
4. Replacement planting off-site within an area subject to a conservation easement ~~or acquisition in fee title by a land conservation organization;~~ or
5. A combination of numbers 1 through 4 above.

Consistent with California PRC 21083.4, replacement ~~areaplanting~~ shall ~~equal~~not account for more than 50 percent of the ~~total area~~oak woodland mitigation requirement.

Figure 1. Oak Resources Permitting and Mitigation Process

Oak Resources Process Flow Chart

(Must Answer Questions 1, 2, and 3)



2.3 Individual Native Oak Tree and Heritage Tree Permits and Mitigation

The policy of the oak canopy cover County is to preserve native oak trees when feasible, through the review of all proposed to be removed. For example, 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. As such, the County shall require mitigation for impacts to individual native oak trees and Heritage Trees.

2.3.1 Oak Tree Removal Permits

A tree removal of 2 acres of oak canopy requires permit shall be required by the County for removal of any individual native oak tree not located within an oak woodland and/or for removal of any Heritage Tree. An oak resources technical report shall accompany any tree removal permit application submitted to the County. 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. Oak tree removal permit review will occur concurrent with the environmental review process for discretionary projects or concurrently with other permit review and processing for ministerial projects (e.g., building permits). ~~If a~~ The County will prepare a permit application for ministerial review. In addition to findings of consistency with the requirements and standards of this ORMP, the County shall make the following findings before approving an oak tree removal permit application: ~~is denied, the County shall provide written notification, including the reasons for denial, to the applicant.~~

- The proposed action is consistent with the General Plan; and
- The proposed action would not be detrimental to the public health, safety and welfare, or injurious to the neighborhood; and
- The proposed action is specifically allowed by an oak woodland removal permit pursuant to this ORMP.

An appeal to the fees established through this ORMP shall be in accordance with the appeal procedure set forth in Section 130.22.220 of the County Code.

Commercial firewood cutting operations shall also require a tree removal permit if not approved under an oak woodland removal permit. In reviewing a tree removal permit application for commercial firewood cutting operations, the County shall consider the following:

- Whether the removal of the tree(s) would have a significant negative environmental impact;
- Whether the tree proposed for removal is a Heritage Tree;
- Whether replanting would be necessary to ensure adequate regeneration;
- Whether the removal would create the potential for soil erosion; and
- Whether any other limitations or conditions should be imposed in accordance with sound tree management practices.

- Any person, firm, or corporation that is not exempt from the standards included in this ORMP who removes.

Fines shall be issued to any person, firm, or corporation that is not exempt from the standards included in this ORMP who removes an oak tree without first obtaining an oak tree removal permit ~~shall be subject to the penalties identified in El Dorado County Code Section 13.12.030.~~ Fines may be as high as three times the current market value of replacement trees, as well as the cost of replacement, and/or the cost of replacement of up to three times the number of required replacement trees. In the case of unpermitted Heritage Tree removal, fines may be as high as 9 times the current market value of replacement trees, as well as the cost of replacement, and/or the cost of replacement of up to 9 times the number of required replacement trees. If individual native oak trees or Heritage Trees are removed without an oak tree removal permit, in addition to issuing a fine, the County may choose to deny or defer approval of any applications for development of that property for a period of up to 5 years. All ~~shall be subject to the penalties identified in El Dorado County Code Section 13.12.030.~~ Any monies received as fines for illegal oak tree and woodland tree removal shall be deposited in the County's Oak Woodland Conservation Fund.

2.3.2 Oak Tree Mitigation

Mitigation for removal of individual native oak trees shall be based on an inch-for-inch replacement of 2 acres of oak canopy; removal of 5,000 square feet of oak canopy requires standard (defined in Section 2.4) and shall be quantified and outlined in an oak resources technical report (defined in Section 6.0). Mitigation for removal of Heritage Trees shall be based on an inch-for-inch replacement of 5,000 square feet of oak canopy standard at a 3:1 ratio and shall also be quantified and outlined in an oak resources technical report.

~~D. On-Site Mitigation — Replanting~~ Options for individual native oak tree and Heritage Tree impact mitigation requirements include:

1. Replacement (~~Option A~~) planting on-site within an area subject to a deed restriction or conservation easement;

As provided under Option A, Policy 7.4.4.4, all oak canopy removed for development must be replaced at a 1:1 ratio. In lieu of on-site replacement, where such replacement is not feasible due to soil/habitat considerations and/or land use constraints or not desirable by the applicant, off-site mitigation may be substituted for replacement plantings by payment of the Conservation Fund In-Lieu Fee at a 1:1 canopy surface area ratio or dedication of an off-site conservation easement as described in Section 4.C, also at a 1:1 ratio. Off-site replacement at a 1:1 ratio is offered to avoid circumstances that would result in replacement plantings occurring in marginal habitat or at the expense of other existing habitat. The following provisions apply to on-site and off-site replacement:

2. Replacement planting off-site within an area subject to a conservation easement or acquisition in fee title by a land conservation organization;
3. In-lieu fee payment; or
4. A combination of numbers 1 through 3 above.

Mitigation for individual native oak tree and/or Heritage Tree impacts shall be addressed in an oak resources technical report.

2.4 Replacement Planting Guidelines

This section provides guidelines for projects that elect to mitigate via replacement planting. Replacement plantings may be accepted if adequate openings exist on site and the replanting area likely would can support oak woodland resources (e.g., proper soil type and general environment). The intent is not to remove existing natural habitats for replacement plantings or to create a continuous canopy that would reduce wildlife value or contribute to increased fire hazard. Replacement plantings shall meet the County's replanting and replacement standards and isare subject to County approval. and shall be completed as follows:

- Oak canopy replacement plans shall be prepared by a qualified professional (such as a certified arborist, registered professional forester, certified rangeland manager, or biologist, as described in Section 8.A, Appendix A). Replacement plans shall address the following: (For more detailed criteria, please see Appendix E.)
- An oak planting mitigation plan consistent with the standards established in the 2004 University of California publication, Oak Woodland Impacts: For impacts to oak woodlands, planting density shall be based on recommendations made by a qualified professional and presented in an oak resources technical report. Planting density shall be based on the density of impacted oak woodlands, which shall be documented in the oak resources technical report. Replacement trees shall be regularly monitored and maintained and shall survive for a period of 7 years, calculated from the day of planting. Acorns may be used instead of ~~saplings or one-gallon~~ container trees. If acorns are used, they shall be planted at a 3:1 ratio as determined by the tree replacement formula. The replacement is as follows:

Replacement planting ~~from saplings or~~ with container trees (one-gallon or DeePot 40-sized container trees, that are locally sourced, shall follow this formula for ratios:

(Impacted Oak Woodland Area in acres) x (Impacted Oak Woodland Density in trees/acre) = the total number of replacement trees to be replanted

Replacement replanting by acorn shall be from locally-sourced acorns (acorns gathered locally). The replacement ratio by acorn replanting shall be obtained by the following formula

(Impacted Oak Woodland Area in acres) x (Impacted Oak Woodland Density in trees/acre) x (3 acorns per tree) = the total number of acorns to be replanted

This ORMP does not preclude over-planting so that the ~~90 percent survival rate~~ identified woodland density may be accomplished at the end of the 7-year maintenance and monitoring period. Replacement planting may use a combination of replacement tree sizes (~~saplings,~~ one-gallon, DeePot 40, acorns) if consistency with these ratios is maintained and documented in an oak resources technical report. Monitoring reports shall be submitted to the County at least annually during the 7-year maintenance and monitoring period and documentation of replacement planting success shall be provided to the County at the end of the 7-year monitoring and maintenance period (final monitoring report).

- Individual Native Oak Tree and Heritage Tree Impacts: For impacts to individual native oak trees that are not otherwise mitigated, replacement planting shall be calculated based upon an inch-for-inch replacement of removed individual native oak trees. The total of replacement trees shall have a combined diameter of the tree(s) removed. Replacement tree species shall be the same proportion as those removed. For the purposes of this requirement, a 15-gallon replacement tree is assumed to represent 1-inch of trunk diameter. Replacement trees shall be planted on-site and monitored and maintained for a period of 7 years, calculated from the day of planting. Documentation of replacement planting success shall be provided to the County at the end of the 7-year monitoring and maintenance period. Any trees that do not survive the 7-year monitoring and maintenance period shall be replaced by the ~~property owner~~ responsible party listed on the Oak Tree Removal Permit and shall be monitored and maintained for 7 years. Replacement tree sizes may vary and may include acorn plantings, based on documentation of inch-for-inch replacement consistency included in an oak resources technical report. If acorns are used, they shall be planted at a 3:1 ratio (3 acorns for every 1-inch of trunk diameter removed) under the direction of a qualified professional. The replacement planting area shall be suitable for tree planting, shall not conflict with current or planned land uses, and shall be large enough to accommodate replacement plantings at a density no greater than 200 trees per acre. This ORMP does not preclude over-planting so that the minimum survival rate may be accomplished at the end of the 7-year maintenance and monitoring period. Monitoring reports shall be submitted to the County at least annually during the 7-year maintenance and monitoring period and documentation of replacement planting success shall be provided to the County at the end of the 7-year monitoring and maintenance period (final monitoring report).

For impacts to Heritage Trees, replacement planting shall adhere to the standards identified for individual native oak trees; however, replacement totals shall be calculated based upon an inch-for-inch replacement at a 3:1 ratio.

- On-Site Replacement Planting: On-site replacement trees are to be planted to the satisfaction of the Development Services Director. The replacement planting area shall be suitable for tree planting, shall not conflict with current or planned land uses, and shall be large enough to accommodate replacement plantings at a density equal to the density of oak woodlands impacted. A deed restriction or conservation easement to the satisfaction of County Counsel and the Director shall be required to ensure the long term conservation of any on-site replacement trees planted. The Conservation Easement shall be in favor of the County or a County-approved conservation organization. Maintenance and monitoring shall be required for a minimum of 7 years after planting. Any trees that do not survive during this period of time shall be replaced by the ~~property owner~~ responsible party listed on the Oak Tree Removal Permit and monitored to ensure survival for a period of 7 years from the date of planting.
- Off-Site Replacement Planting: The applicant may be permitted to procure an off-site planting area for replacement planting, preferably in proximity and/or in connection with oak woodlands contiguous to the project site or within or adjacent to a PCA or an Important Biological Corridor as designated in the General Plan or important ecological area as identified in the Initial Inventory and Mapping (June 2010). The replacement planting area shall be suitable for tree planting, shall not conflict with current or planned

land uses, and shall be large enough to accommodate replacement plantings at a density no greater than 200 trees per acre. A conservation easement to the satisfaction of County Counsel and the Development Services Director shall be required to ensure the long term maintenance and preservation of any on-site replacement trees planted. The Conservation Easement shall be in favor of the County or a County approved conservation organization. Maintenance and monitoring shall be required for a minimum of 7 years after planting. Any trees that do not survive during this period of time shall be replaced by the ~~property owner~~ responsible party listed on the Oak Tree Removal Permit and monitored to ensure survival for a period of 7 years from the date of planting.

- Replacement Planting Plans: Oak resources replacement planting plans shall be prepared for all replacement planting efforts (on- and off-site) by a qualified professional and may be prepared in conjunction with oak resources technical report. Replacement planting plans shall address the following:
 - Consistency with the accepted native oak tree planting standards, including those outlined in Regenerating Rangeland Oaks in California, (McCreary 2009), How to Grow California Oaks, (McCreary 1995), How to Collect, Store and Plant Acorns, (McCreary undated), and other publications and protocols that may be established by the University of California—Integrated Hardwood Range Management Program, Division of Agriculture and Natural Resources.
 - The suitability of the site ~~for oak woodlands~~ shall be demonstrated with soil information, aerial photography, or other resources. ~~The qualified professional shall demonstrate that the replanting plan does not remove existing non-oak woodland and enhances existing oak woodland habitat.~~
 - The density of replanting shall be determined by the qualified professional, based on accepted practice and current research, but shall not exceed 200 trees per acre.
 - The intent of the replacement planting plan is to provide replacement oak trees or acorns with a similar mix of species as those removed, however, the species may vary based on site specific conditions, as determined by the qualified professional.
 - Acorns or ~~saplings~~ container trees for replanting shall be from local sources, when available, to maintain local genetic strains.
 - Replacement planting ~~should~~ shall not be located within the ~~0-100'~~ 100-foot defensible space zone from an existing or proposed structure unless otherwise consistent with CAL FIRE's defensible space guidelines and fuels reduction requirements mandated under ~~California Public Resources Code (PRC) §PRC 4291.~~
 - Replacement plantings shall be maintained in a manner determined by the qualified professional, based on the site-specific conditions, which may include weed control, irrigation ~~(if appropriate), herbivory/grazing,~~ tree protection, pest management, and/or fertilization, and planting methods.
 - The replacement planting plan shall identify the frequency and methods of maintenance and monitoring, as well as contingencies or alternatives if the success criteria are not met annually or at the end of the monitoring term along

with a means to ensure compliance with the replacement planting plan. The monitoring term shall be ~~seven~~7 years (PRC 21083.4).

- Best Management Practices (BMPs) for protection of retained oaks during and after construction (refer to Appendix D).
- An estimate of the total costs associated with implementation of the replacement plan.
- ~~An oak tree easement shall be recorded on each property by the County, project applicant, or landowner for all replanting areas approved by the County as mitigation, prior to issuance of a permit.~~

E. Mitigation Option B

~~Option B does not require the retention of a minimum percentage of oak canopy on-site. This mitigation alternative is intended to preserve existing oak woodland canopy of equal or greater biological value as those lost. To compensate for both habitat loss and fragmentation, the preservation mitigation ratio was set at 2:1 based on the acreage of oak canopy affected. For purposes of the fee program, the standard for off-site mitigation under Option B is payment of the Conservation Fund In Lieu fee at a ratio of 2:1. In other words, for each acre of oak canopy that is lost, the payment is the fee per acre multiplied by two. The Conservation In Lieu Fee Mitigation Method is described in detail in Appendix B.~~

~~Alternatives to the Conservation Fund In Lieu Fee, including dedication of off-site conservation easements by a landowner/developer as direct mitigation at a 2:1 ratio are considered the functional equivalent of the Option B in lieu fee, and will be permitted, subject to County approval. While landowners/developers will not have to pay the Acquisition Component of the fee as they are themselves acquiring a conservation easement, they are still required to pay the Management Component and Monitoring Component of the Conservation Fund In Lieu Fee to provide for the ongoing endowment for management and monitoring.~~

F.2.5 Oak Resources Technical Reports

This section provides guidelines for projects that require preparation of an oak resources technical report. An oak resources technical report is a stand-alone report prepared by a qualified professional that includes the following:

- Identification, location, and quantification of all oak resources on the property:
 - Oak woodlands shall be mapped and assessed in accordance with the CDFG 2009 *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* and subsequent updates, and the *List of Vegetation Alliances and Associations* (CDFG 2010) and subsequent updates;
 - Data collected for individual native oak trees and Heritage Trees shall include: location, species, trunk diameter (dbh), height, canopy radius, and general health and structural condition;

- Identification and quantification of project-related impacts to oak resources;
- Measures identifying how specific trees and woodlands (or retained portions thereof) shall be protected during development and related work;
- Proposed actions to mitigate impacts to oak resources, consistent with the requirements included in this ORMP:
 - For replacement planting, the report shall provide detail regarding the quantity, location, planting density, and acorn/seedling source consistent with the definition of Replacement Planting included in this ORMP;
 - For conservation easement placement/acquisition and/or land acquisition in fee title, the report shall provide documentation of easement placement on-site and/or documentation of easement or land acquisition off-site to the satisfaction of the County;
 - For in-lieu fee payment, the report shall document the quantity of impacts (acreage of oak woodlands and/or total diameter inches of individual native oak trees/Heritage Trees) and the total in-lieu fee payment necessary (presented separately for oak woodlands, individual native oak trees, and Heritage Trees, where applicable);
- Identification of responsible parties;
- Identification of maintenance, monitoring, and reporting requirements;
- Analysis of non-PCA conservation easement areas, where applicable;
- A site map(s) depicting the location of all oak woodlands, individual native oak trees, and Heritage Trees and the location of all proposed project-related improvements (including, but not limited to, the limits of grading, fuel modification/defensible space areas, and above- and below-ground infrastructure). The site map(s) shall also clearly identify impacted oak resources.

2.6 Mitigation Program Flexibility

~~The OWMP~~This ORMP provides for flexibility in meeting ~~the oak canopy resources~~ mitigation requirements. - An applicant for a development project may comply with the provisions of ~~Policy 7.4.4.4 by meeting the retention and 1:1 replacement requirements of Option A, providing off-site mitigation through the payment of the OWMP fee as established by the OWMP and the implementing fee ordinance, or a combination of the two provisions. Additionally, off-~~this ORMP by combining mitigation options, except as specified for replacement planting to mitigate oak woodland impacts. Off-site mitigation may be accomplished through private agreements between the applicant and another private party consistent with the 2:1 replacement provisions of Option B standards included in this ORMP and subject to approval by the County of the suitability of the oak woodland to be protected. When dedication of off-site conservation easements outside of the PCAs is proposed by a developer, ~~a biological study shall be required for the off site mitigation location to demonstrate that the site is of equal or greater biological value as the oak woodland proposed to be removed. The biological study shall evaluate and demonstrate parity of habitat elements such as snags, large woody debris, and the diversity and~~

~~structure of the understory between the oak woodlands lost and those being protected. If the off-site conservation easement is to mitigate for Valley Oak Woodland removed, then the easement must be within Valley Oak Woodland of equal or greater biological value. the proposed site shall be prioritized based on the standards set forth in this ORMP (Section 4.0). A developer that dedicates a County-approved conservation easement is not subject to the Acquisition Component acquisition component of the Conservation Fund In-Lieu Fee in-lieu fee, but is subject to the Management Component management component and Monitoring Component monitoring component of the fee.~~

~~3. Conservation Fund In-Lieu Fee Methodology~~

~~The Conservation Fund~~

3.0 In-Lieu Fee

The methodology for determining the in-lieu fee for impacts to individual native oak trees and oak woodlands is provided in detail in Appendix B. In general, the in-lieu fee for oak woodlands is based on the costs of acquisition of land and conservation easements, along with management, monitoring, and administrative costs. ~~For individual native oak trees, the in-lieu fee is based on an inch-for-inch replacement approach that accounts for costs associated with purchasing and planting 1-inch of trunk diameter.~~

3.1 Oak Woodlands

As noted, the in-lieu fee for impacts to oak woodlands is based on the costs of acquisition of land and conservation easements, along with management, monitoring, and administrative costs. A breakdown of costs per acre is provided in Table 4. ~~Details of the analysis to establish the fee is contained in Appendix B.~~

~~Table 4: Conservation Fund In-Lieu Fee~~

Table 4
Oak Woodland In-Lieu Fee

<u>Activity</u>	<u>Cost Per per Acre</u>
<u>Acquisition¹</u>	\$ 2,300 To be provided <u>\$4,400</u>
<u>Initial Management and Monitoring²</u>	\$1,200 To be provided <u>\$2,300</u>
<u>Long-Term Management and Monitoring³</u>	\$ 1,200 To be provided <u>\$875</u>
<u>Administration</u>	<u>\$379</u>
<u>Total Cost/Fee Per per Acre</u>	\$4,700 To be provided <u>\$7,954</u>

Source: New Economics & Advisory Draft Oak Resource In-Lieu Fee Nexus Study (June 2015)

~~(1) Conservation easement on rural land acquisition of 125 acres, which is the average parcel size within the PCAs. Acquisition costs include the easement land value (approximately \$1,800, or 40% discount value) and conveyance costs.~~

~~(2) Includes biological survey/baseline documentation, weed control and fuels treatment.~~

~~(3) Includes endowment for on-going monitoring.~~

~~As provided~~The in-Option B of Policy 7.4.4.4, off site mitigation in the form of lieu fee payment of the fee option for impacts to oak woodlands shall be made at a 2:1 canopy surface area the ratio, requiring the payment of \$9,400 outlined in Table 3, which provides for every acre of oak canopy removed in excess of the amount provided in the table of Option A. To meet the Option A 1:1 replacement standard, an applicant may opt to pay the Conservation Fund In-Lieu Fee at the 1:1 rate for that portion a variable mitigation ratio depending on the percentage of oak canopy removed consistent with the table. If payment into the Conservation Fund is utilized for the replacement portion of Option A, then on-site retention requirements would still apply.

woodland impacted on a project site. The County shall deposit all Conservation Fund In-Lieu oak woodland in-lieu fees into anits Oak Woodland Conservation Fund, which shall be used to acquire fund the acquisition of land and/or conservation easements from willing sellers in the PCAs as described below in Section 4.- This fund shall also be used for ongoing monitoring and

management activities, including but not limited to fuels treatment, weed control, periodic surveys, and reporting. ~~The County may provide~~ It is anticipated that conservation easements and mitigation lands would be held by a land conservation organization; therefore, ongoing monitoring and management services by employees or contract management and monitoring activities with a qualified firm, individual, outside agency, or non-profit organization, would be conducted by such organizations. Funding to support the ~~identification of willing sellers,~~ negotiation of the purchase price, and oversight of the land transaction is included in the management component of the ~~Conservation Fund In Lieu Fee~~ oak woodland in-lieu fee.

As costs ~~for off-site mitigation~~ change over time, there will be a need to adjust the fee to closely match future cost increases or decreases. Appendix B details the fee adjustment approach. ~~A~~ report regarding fee adjustments will be included in ~~an annual~~ a report to be submitted to the Planning Commission and Board of Supervisors ~~each~~ every other March, as described in Appendix A. ~~The first fee adjustment study would occur at least 12 months after adoption of the OWMP.~~ this ORMP.

4. ~~Priority Conservation Areas~~

A. Identification of Priority Conservation Areas

3.2 Oak Trees

For individual native oak trees, the in-lieu fee is 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 seven years. Specifically, a 15-gallon size native oak tree is assumed to represent one inch of trunk diameter. The acquisition and planting component of ~~The~~ per-inch mitigation fee is then based on the costs to purchase and plant one 15-gallon native oak tree. To determine the per-inch fee, the median price of 15-gallon oak trees was calculated from a survey of eight nurseries in El Dorado County and the surrounding region. This price was then doubled to account for costs associated with planting. Doubling the per-tree cost to account for purchasing and planting a tree (inclusive of labor and materials) is a standard approach in the landscape/habitat restoration industry. The management and monitoring component of the per-inch mitigation fee is based on annual costs associated with maintaining planted trees for a period of seven years. Data for this fee was derived from cost estimates provided by a habitat restoration contracting firm, Habitat Restoration Sciences, Inc. Based on this analysis, the per-inch individual native oak tree mitigation fee was calculated to be \$186 ~~120.00~~ .00. In the case of Heritage Trees, the per-inch mitigation fee shall be \$558 ~~360.00~~ (3:1 ratio). Table 5 summarizes the cost breakdown associated with the in-lieu fee for individual native oak trees.

Table 5
Individual Oak Tree In-Lieu Fee

<u>Activity</u>	<u>Cost per Inch</u>
<u>Acquisition and Planting</u>	<u>\$120</u>

Table 5
Individual Oak Tree In-Lieu Fee

<u>Activity</u>	<u>Cost per Inch</u>
<u>Initial Management & Monitoring (Years 1-7)</u>	<u>\$56.70</u>
<u>Administration (5%)</u>	<u>\$8.84</u>
<u>Total Cost per Inch</u> <u>(rounded to nearest whole dollar)</u>	<u>\$186</u>

Source: New Economics & Advisory Draft Oak Resource In-Lieu Fee Nexus Study (June 2015)

As described in this ORMP, this per-inch mitigation fee may be paid as mitigation for impacts to individual native oak trees or Heritage Trees. The per-inch fee shall be multiplied by the total number of trunk diameter inches removed (dbh). The County shall deposit all oak tree in-lieu fees into its Oak Woodland Conservation Fund and shall use collected per-inch mitigation fees for native oak tree planting projects or may use such funds to acquire oak woodland conservation easements, with documentation that the number of diameter inches meets those for which mitigation fees have been paid.

As costs change over time, there will be a need to adjust the fee to closely match future cost increases or decreases. Appendix B details the fee adjustment approach. A report regarding fee adjustments will be included in a report to be submitted to the Planning Commission and Board of Supervisors every other March, as described in Appendix A. The first fee adjustment study would occur at least 12 months after adoption of this ORMP.

4.0 Priority Conservation Areas

4.1 Identification of Priority Conservation Areas

Figure ~~42~~ identifies the areas in which acquisition of land or conservation easements shall be acquired from willing sellers shall be prioritized using the Oak Woodland Conservation Fund generated by the payment of the Conservation Fund In Lieu Fee in-lieu fees described above. These areas were identified using the FRAP classification of ~~the five oak woodland habitat types~~ in the county. - After those areas were mapped, the areas were narrowed down to large expanses consisting of 500 acres or more. - Those large expanses were further narrowed to lands where oak woodland habitat would not likely undergo substantial fragmentation and oak woodland conservation would be consistent with the 2004 General Plan land use designations. - Areas specifically excluded were lands within Community Regions and Rural Centers and lands designated Low Density Residential. - These resulting areas are classified as Priority Conservation Areas (PCAs).

The 500-acre PCAs are generally made up of 40-acre and larger privately owned parcels. - A breakdown of parcel sizes within the large expanses is shown in Table ~~56~~. - A more detailed description of the mapping process and data used to identify PCAs is provided in Appendix ~~G~~. A. Figure ~~42~~ also shows existing public lands with ~~high value~~ oak woodlands contiguous to the PCAs.

**Table ~~56~~
PCA Parcel Statistics**

Parcel size (Acres)	#Number of parcels Parcels	Acres
40-60	170	7,666.3
60.1-120	155	13,176.7
120.1-340	175	31,674.3
340.1+	29	13,535.5
Total	529	66,052.8
	Avg. Size	124.9
	Median Size	84.3

*Data produced using parcel data from El Dorado County and the PCA shapefile for the Draft Plan (VOWH_PRVT_grtr500ac.shp)

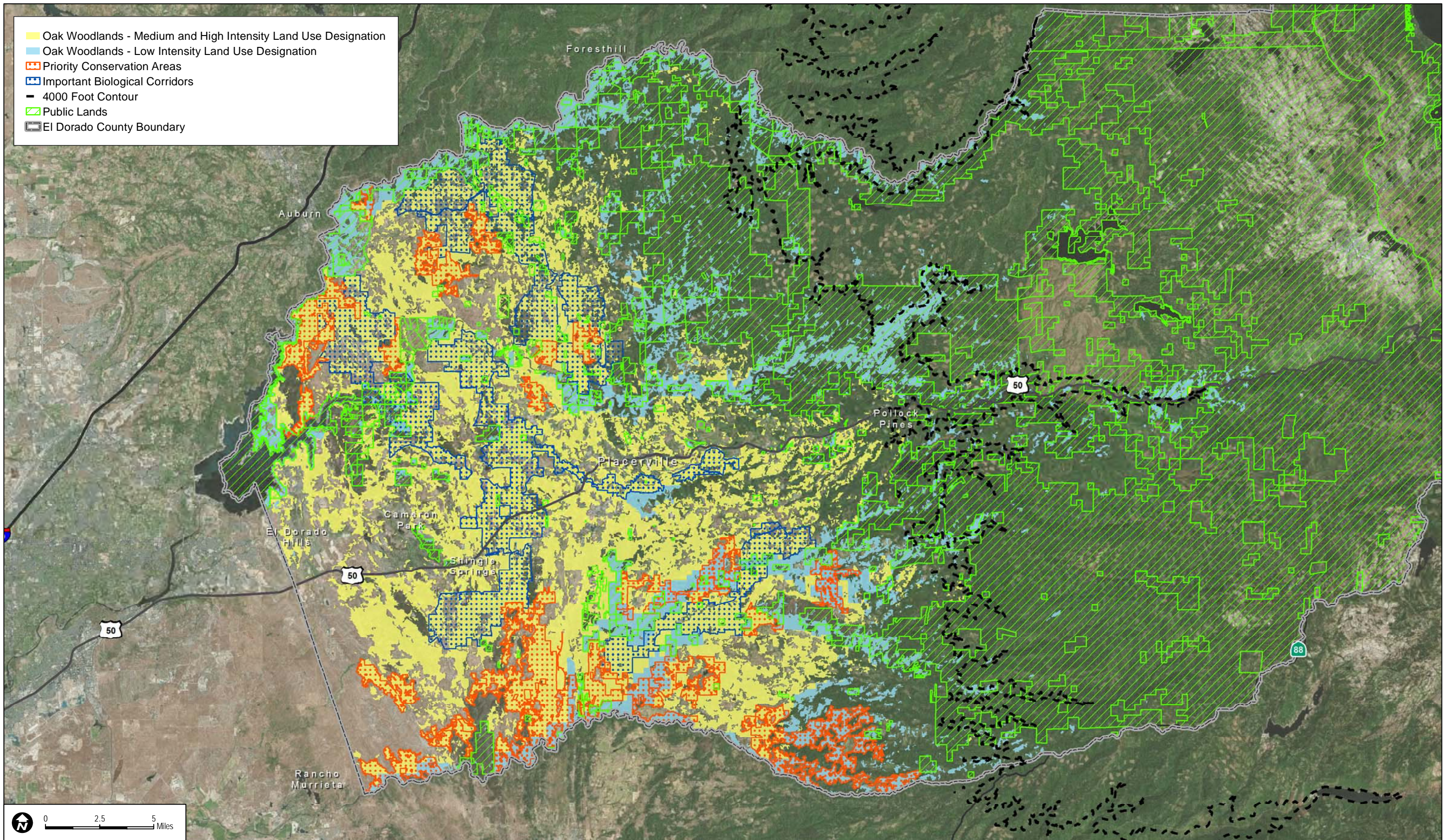
Oak woodland offered as mitigation must be configured in such a manner as to best preserve the integrity of the oak woodland ecosystem. - Priority should be given to conserving oak woodland habitat within PCAs, particularly areas that are adjacent to existing woodlands under or subject to any lying west of the National Forest within the Important Biological Corridor, overlay, under a conservation easement, on public lands, in open space lands, in riparian corridors, or ecological preserves or other PCAs lying west of the National Forest.

~~Valley Oak Woodland~~ woodlands within the PCAs will be specifically acquired conserved to mitigate for losses of ~~Valley Oak Woodland~~ oak woodlands. Prioritization will be given to areas that provide a diversity of oak woodland types. The acreage of oak woodlands conserved shall be based on the quantity of those impacted as a result of new development. Only Valley

~~Figure 2. Priority Conservation Areas, Oak Woodlands will be targeted this way, and Public Lands in order to provide a method ensuring that this General Plan designated “sensitive habitat” is adequately preserved. If the Valley Oak Woodland habitat within currently designated PCAs becomes insufficient, then additional acreage of this habitat type will be added to the PCAs as necessary upon annual review of the OWMP.~~ El Dorado County

~~The OWMP establishes an oak woodlands resource base that, when managed for conservation and preservation purposes, conserves a substantial portion of oak woodland habitat to offset the effects of increased habitat loss and fragmentation elsewhere in the county. This approach is considered superior to one that attempts to conserve oak woodlands in areas designated for development. Such areas are less desirable for mitigation lands because they are more expensive, have reduced habitat values, and would conflict with approved General Plan land use designations. Subsequent adoption and implementation of the INRMP, and incorporation of this plan into that document, will ensure connectivity between the PCAs. The INRMP will also address north-south connectivity across Highway 50 and the potential role of oak woodlands less than 40 acres in maintaining connectivity between larger expanses of oak woodlands. Existing public lands, Important Biological Corridors as identified on the 2004 General Plan land use diagram, and stream setback requirements provided under Policy 7.3.3.4 provide sufficient interim connectivity to provide wildlife movement between the PCAs (See Figure 2).~~

B.



DUDEK SOURCE: Bing Maps 2014; FRAP 2006; El Dorado County 2014

8229-01 Draft Oak Resources Management Plan

FIGURE 2
Priority Conservation Areas, Oak Woodlands, and Public Lands in El Dorado County

This ORMP establishes a strategy for conserving oak woodland habitat to offset the effects of increased habitat loss and fragmentation elsewhere in the county. Identification of PCAs and standards for prioritizing conservation of oak woodlands outside of PCAs (Section 4.3) fulfills the oak woodlands portion of the conservation requirements outlined in General Plan Policy 7.4.2.8.

4.2 Management of PCAs

Existing native-oak woodland woodlands within the PCAs identified as mitigation for project impacts, whether on or off the project site, will be protected from further development through a conservation easement granted to the County or a land conservation group approved by the County, or by acquisition in fee title by a land conservation group. Management activities would be conducted by land conservation organizations and may include, but are not limited to, one or more of the following activities, as determined appropriate and/or necessary through monitoring of the sites:– inspections, biological surveys, fuels treatment to reduce risk of wildfire and to improve habitat, weed control, database management, and mapping. Agricultural use (i.e., grazing) shall be allowed in conserved oak woodlands as long as the activity occurred prior to the establishment of the conservation easement, the spatial extent of the agricultural use is not expanded on conserved lands, and the agricultural use does not involve active tree harvest or removal (e.g., fuelwood operations, land clearing for crop planting, etc.).

C. Conservation Easements

Conservation easements for oak woodlands shall be granted to the County in perpetuity. 4.3 Conservation Outside of PCAs

The PCAs have been delineated to prioritize the acquisition of land or oak woodland conservation easements either by the County (using the funds collected in the County’s Oak Woodland Conservation Fund) or privately by developers. However, acquisition of land or oak woodland conservation easements outside of the PCAs may also occur. The following criteria shall be used for selecting potential oak woodlands conservation lands or easements outside of PCAs, consistent with General Plan Policy 7.4.2.8 (D):

- Location within IBCs;
- Location within other important ecological areas as identified in the Initial Inventory and Mapping (June 2010);
- Woodlands with diverse age structure;
- Woodlands with large trees and dense canopies;
- Opportunities for active land management to be used to enhance or restore natural ecosystem processes;
- Potential to support special-status species;
- Connectivity with adjacent protected lands;
- Parcels that achieve multiple agency and community benefits;

- Parcels that are located generally to the west of the Eldorado National Forest; and
- Parcels that would preserve natural wildlife movement corridors such as crossings under major roadways (e.g., U.S. Highway 50 and across canyons).

Land or conservation easement acquisition as mitigation of oak woodland impacts that occurs outside of PCAs shall occur on minimum contiguous habitat blocks of 5 acres. For transactions where (the acquired land or conservation easement shall be contiguous to or shall create a contiguous area of no less than 5 acres of oak woodland in conserved or open space status (e.g., parks, national forest, other conserved oak woodlands on private property). For transactions where land is acquired or a conservation easement outside of the PCAs is negotiated between a developer and a private seller, an analysis of the proposed oak woodland conservation area shall be performed by a qualified professional to demonstrate that the proposed conservation area is of equal or greater biological value as the oak woodland proposed to be removed. The analysis of conservation areas shall be included as a component of an oak resources technical report.

Should the County elect to purchase land or oak woodlands conservation easements outside of PCAs using funds from its Oak Woodland Conservation Fund, an analysis of the proposed oak woodland conservation area shall be performed by a qualified professional to determine its suitability in meeting the criteria listed above.

4.4 Conservation Easements

Where the mitigation requirements of this ORMP are met through conservation easements for oak woodlands, whether within or outside of PCAs, the conservation easement shall be granted in perpetuity to the County or a land conservation group approved by the County. The easement shall be provided on a form approved by the County and shall be recorded with the County Clerk/Recorder prior to issuance of a grading or building permit, filing of a parcel or final map, or otherwise commencing with the project.

5. Application of OWMP to Development Review Process

4.5 Deed Restrictions

Where the mitigation requirements of this ORMP are met through deed restrictions for oak woodlands, whether within or outside of PCAs, the deed restriction shall commit the property to oak woodland conservation use in perpetuity. The deed restriction shall be recorded with the County Clerk/Recorder prior to issuance of a grading or building permit, filing of a parcel or final map, or otherwise commencing with the project.

5.0 Application of ORMP to Development Review Process

Determination of the applicability of the ~~OWMP~~ORMP to a development project shall be made as follows:

1. ~~1.~~ 1.—Planning staff and applicant ~~determines~~determine if oak ~~woodland exists~~resources exist on the ~~parcel~~property and if the proposed project ~~impacts~~would impact any of the oak ~~canopy~~resources.
2. ~~2.~~ 2.—Oak canopy loss is ~~calculated by a consultant hired by the applicant, utilizing either an on-site survey~~resources are mapped, quantified, and categorized (oak woodland, individual native oak tree, and/or Heritage Tree) by a qualified professional, aerial photography, or other means acceptable to the County to determine total oak canopy area and the area proposed to be removed as a part of the project. Canopy loss is hired by the applicant and documented in an oak resources technical report.
- 2.3. Oak resources impacts are quantified in the oak resources technical report. Oak resources impacts are calculated by identifying all disturbed areas as proposed, including:
 - a. ~~_____~~ a.—Roads, driveways, and access drives;
 - b. ~~_____~~ b.—Graded areas for building pads, parking lots, staging areas, and other improvements; and
 - c. ~~_____~~ c.—Other disturbed areas resulting in ~~tree removal~~oak resources impacts including septic system leach fields ~~and fire safety,~~ above- and below-ground utilities, and defensible space vegetation removal for new construction.
 - ~~_____~~ d. ~~Fire Safe Plans allow for some retention of oak canopy. To simplify the calculation of oak canopy retention in this zone, the OWMP assumes 80% retention. A site specific analysis of tree removal may be utilized instead of the 80% retention assumption.~~
- 3.4. ~~3.~~ 3.—The proposed oak ~~canopy removal~~woodland impact area is compared with the ~~retention standards provided in the Option A table,~~ total on-site oak woodland area to determine the appropriate mitigation ratio.
5. ~~4.~~ 4.—If ~~Impacts to individual native oak trees and/or Heritage Trees are determined and the amount~~sum of oak canopy removed is ~~within the retention standards set forth in the Option A table,~~ impacted trunk diameter (dbh) calculated.
- 4.6. If applicable, the applicant may mitigateproposes mitigation for the ~~loss~~impacts to oak woodlands in an oak resources technical report by one of the following mechanisms:
 - ~~_____~~ a. ~~Planting on-site at a 1:1 canopy surface area ratio the area of oak canopy removed; or~~
 - ~~_____~~ b. ~~Paying into the Oak Woodland Conservation Fund an amount equal to 1:1 replacement for the oak canopy removed; or~~
 - a. ~~_____~~ c. ~~Acquire a Deed restriction and/or conservation easement from a willing seller for an area equal to the area (i.e., 1:1 ratio) of removed oak canopy, in an area either~~ dedication (on-site), conservation easement acquisition (off-site), acquisition in fee title by a land conservation organization (on-site and/or off-site);

b. In-lieu fee payment at the ratio determined by percentage of on-site oak woodland impact and based on the currently-adopted per-acre fee amount;

c. Replacement planting on-site within the PCA or other an area acceptable subject to a deed restriction or conservation easement;

a.d. Replacement planting off-site within an area subject to a conservation easement or acquisition in fee title by the County or a County-approved land conservation organization; or

b.e. ——— d. ——— A combination of two or more of the above provisions.

~~5. If the amount~~In no case shall replacement planting exceed 50 percent of oak woodland canopy removed exceeds the amount permitted under the Option A retention table, in addition to the provisions of steps 1 through 3, above mitigation requirement.

~~7. If applicable, the applicant shall de~~proposes mitigation for impacts to individual native oak trees and/or Heritage Trees in an oak resources technical report by one of the following mechanisms:

a. Replacement planting on-site within an area subject to a deed restriction or conservation easement;

b. Replacement planting off-site within an area subject to a conservation easement or acquisition in fee title by the County or a County-approved land conservation organization;

c. In-lieu fee payment for oak canopy all diameter inches removed (dbh), or 3 times the total diameter inches removed in excess of that permitted under Option A: for Heritage Trees, and based on the currently-adopted per-inch fee amount; or

~~— a. Pay into the County's Oak Woodland Conservation Fund the fee amount based on a 2:1 replacement ratio; or~~

~~— b. Acquire a conservation easement from a willing seller for two times the area of oak canopy removed in excess of that permitted under the Option A table, in an area either within the PCA or other area acceptable to the County, along with fees for management and monitoring; or~~

d. ——— e. ——— A combination of two or more of the above provisions.

~~5.8. ——— 6. ———~~Payment of applicable fees and in-lieu fees and establishment of any required deed restrictions and/or granting of any required conservation easements and/or land acquisition in fee title shall be required as a condition of approval of all discretionary permits for which these provisions apply, and shall be completed prior to issuance of a grading or building permit, filing of a parcel or final map, or otherwise commencing with the project. The payment of the fee in-lieu fees may be phased to reflect the timing of the tree canopy oak resources removal/impact. For phasing, permits issued for oak resources removal shall only be for the area covered by the fee payment.

~~6.9. ——— 7. ———~~Payment of applicable in-lieu fees and establishment of any required deed restrictions and/or granting of any required conservation easements and/or land acquisition in fee title, if necessary, shall be completed prior to issuance of a building or grading permit for ministerial projects.

6.0 Definitions

For the purposes of this ORMP, the following terms and phrases shall have the meanings respectively ascribed to them by this section:

Agricultural Conversion: As defined by General Plan Policy 7.1.2.7.

Agricultural Cultivation/Operations: As defined by General Plan Policy 8.2.2.1.

Agricultural Lands: As defined by General Plan Policies 2.2.1.2 and 8.1.1.8, and further, Policy 8.2.2.1.

Arborist: A person certified by the International Society of Arboriculture (ISA) that provides professional advice regarding trees in the County.

CAL FIRE: California Department of Forestry and Fire Protection.

Commercial Firewood Cutting: Fuel wood production where a party cuts firewood for sale or profit.

Conservation Easement: An easement granting a right or interest in real property that is appropriate to retaining land or water areas predominately in their natural, scenic, open, or wooded condition; retaining such areas as suitable habitat for fish, plants, or wildlife; or maintaining existing land uses.

For conservation easement dedication (on-site) or acquisition (off-site) as mitigation for oak woodland impacts, a conservation easement to the satisfaction of County Counsel and the Development Services Director shall be required to ensure the long term maintenance and preservation of oak woodlands. The conservation easement shall provide for the preservation of the designated area in perpetuity and shall include such terms, conditions, and financial endowments for monitoring and management deemed necessary by the County to ensure the long term preservation of the oak woodland within the easement area. The conservation easement shall be in favor of the County or a County-approved conservation organization.

Construction/Disturbance Area: Any area in which movement of earth, alteration in topography, soil compaction, disruption of vegetation, change in soil chemistry, and any other change in the natural character of the land occurs as a result of site preparation, grading, building construction or any other construction activity.

Deed Restriction: Private agreements that restrict the use of the real estate and are listed in the deed. Restrictions travel with the deed, and cannot generally be removed by new owners.

Defensible Space: The area within the perimeter of a parcel, development, neighborhood or community where basic wildland fire protection practices and measures are implemented, in order to defend against encroaching wildfires or provide for people to escape structure fires.

Defensible space is required by any person who owns, leases, controls, operates or maintains a building or structure in or adjoining any mountainous area, forest-covered lands, brush-covered

lands, grass-covered lands or any land that is covered with flammable material and is within the State Responsibility Area. PRC 4291 requires 100 feet of Defensible Space (or to the property line if less than 100 feet) from every building or structure that is used for support or shelter of any use or occupancy.

Diameter at Breast Height (dbh): The measurement of the diameter of a tree in inches, specifically four (4) feet six (6) inches above natural grade on the uphill side of the tree. In the case of trees with multiple trunks, the diameter of all stems (trunks) at breast height shall be combined to calculate the diameter at breast height of the tree.

Fire Safe Plan: Defined in the El Dorado County General Plan (Policy 6.2.2.2) as a plan prepared by a Registered Professional Forester (RPF) and approved by the local Fire Protection District and/or California Department of Forestry and Fire Protection. The plan is prepared to demonstrate that development can be adequately protected from wildland fire hazard in areas of high and very high wildland fire hazard or in areas identified as “urban wildland interface communities within the vicinity of Federal lands that are a high risk for wildfire,” as listed in the Federal Register of August 17, 2001.

Habitat: The physical location or type of environment in which an organism or biological population lives or can be found.

Heritage Trees: Any live native oak tree of the genus *Quercus* (including blue oak (*Quercus douglasii*), valley oak (*Quercus lobata*), California black oak (*Quercus kelloggii*), interior live oak (*Quercus wislizeni*), canyon live oak (*Quercus chrysolepis*), Oregon oak (*Quercus garryana*), oracle oak (*Quercus x morehus*), or hybrids thereof) with a single main trunk measuring 36 inches dbh or greater, or with a multiple trunk with an aggregate trunk diameter measuring 36 inches or greater.

Impact: For individual native oak trees, the physical destruction, displacement or removal of a tree or portions of a tree caused by poisoning, cutting, burning, relocation for transplanting, bulldozing or other mechanical, chemical, or physical means. For oak woodlands, tree and land clearing associated with land development, including, but not limited to, grading, clearing, or otherwise modifying land for roads, driveways, building pads, landscaping, utility easements, fire-safe clearance and other development activities.

In-lieu Fee: Cash payments that may be paid into the County’s Oak Woodland Conservation Fund by an owner or developer as a substitute for ~~oak woodland~~ deed restriction or conservation easement ~~placement or~~ acquisition or replacement planting. In-lieu fee amounts for individual native oak trees, Heritage Trees, and oak woodlands are presented in this ORMP and may be adjusted by the County over time to reflect changes in land values, labor costs, and nursery stock costs.

Individual Native Oak Trees: Any live native oak tree of the genus *Quercus* (including blue oak (*Quercus douglasii*), valley oak (*Quercus lobata*), California black oak (*Quercus kelloggii*), interior live oak (*Quercus wislizeni*), canyon live oak (*Quercus chrysolepis*), Oregon oak (*Quercus garryana*), oracle oak (*Quercus x morehus*), or hybrids thereof) with a single main

trunk measuring greater than 6 but less than 36 inches dbh, or with a multiple trunk with an aggregate trunk diameter measuring greater than 10 but less than 36 inches dbh.

Monitoring Report: A report prepared by a qualified professional documenting site observations and replacement planting survival totals for oak resources mitigation efforts. A Final Monitoring Report is one prepared at the end of the 7-year maintenance and monitoring period that summarizes replacement planting survival totals. A copy of the Final Monitoring Report shall be submitted to the County.

Oak Resources: Collectively, oak woodlands, individual native oak trees, and Heritage Trees.

Oak Resources Impacts: For individual native oak trees and Heritage Trees, removal or actions that cause the death of the tree shall constitute an impact. For oak woodlands, the oak woodland acreage that occurs within project-related disturbance areas shall be considered impacted.

Oak Tree Removal Permit: A permit issued by the County allowing removal of individual native oak trees not located within an oak woodland. An oak resources technical report shall accompany any tree removal permit application submitted to the County. Conditions of approval may be imposed on the permit. If a tree removal permit application is denied, the County shall provide written notification, including the reasons for denial, to the applicant. Oak tree removal permit processing and approval will be conducted concurrently with the environmental review process for discretionary projects or concurrent with other permit review and processing for ministerial projects (e.g., building permits).

Oak Woodlands: An oak stand with a greater than 10 percent canopy cover or that may have historically supported greater than 10 percent canopy cover (California Fish and Game Code Section 1361).

Oak Woodland Removal Permit: A permit issued by the County allowing removal of oak trees that are a component of an oak woodland. An oak resources technical report shall accompany any oak woodland removal permit application submitted to the County. Conditions of approval may be imposed on the permit. If an oak woodland removal permit application is denied, the County shall provide written notification, including the reasons for denial, to the applicant. Oak woodland removal permit processing and approval will be conducted concurrently with the environmental review process for discretionary projects.

Qualified Professional: An arborist certified by the International Society of Arboriculture (ISA), a qualified wildlife biologist, or a registered professional forester (RPF).

Qualified Wildlife Biologist: A professional with a BA or BS or advanced degree in biological sciences or other degree specializing in the natural sciences; professional or academic experience as a biological field investigator, with a background in field sampling design and field methods; taxonomic experience and knowledge of plant and animal ecology; familiarity with plants and animals of the area, including the species of concern; and familiarity with the appropriate county, state, and federal policies and protocols related to special status species and biological surveys.

Registered Professional Forester (RPF): A Registered Professional Forester (RPF) is a person licensed by the State of California to perform professional services that require the application of

forestry principles and techniques to the management of forested landscapes. RPFs have an understanding of forest growth, development, and regeneration; soils, geology, and hydrology; wildlife and fisheries biology and other forest resources. RPFs are also trained in fire management and, if involved in timber harvesting operations, have expertise in both forest road design and application of the various methods used to harvest.

~~Removal: The physical destruction, displacement or removal of a tree, or portions of a tree caused by poisoning, cutting, burning, relocation for transplanting, bulldozing or other mechanical, chemical, or physical means.~~

Replacement Tree: A tree planted as mitigation for oak resources impacts. Replacement trees include container tree stock (one-gallon or DeePot 40 size) and acorns. If acorns are used, the planting ratio shall be 3:1 as compared with container tree stock. Acorns and container stock shall be locally-sourced (from within El Dorado County).

Sensitive Habitat: In El Dorado County, this includes the following habitat types: montane riparian, valley-foothill riparian, aspen, valley oak woodland, wet meadow, and vernal pools, as defined in the 2004 El Dorado County General Plan EIR.

Woodland Habitats: Biological communities that range in structure from open savannah to dense forest. In El Dorado County, major woodland habitats include blue oak-foothill pine, blue oak woodland, montane hardwood, montane hardwood-conifer, and valley oak woodland.

MEMORANDUM

To: Shawna Purvines, Principal Planner
El Dorado County

From: Cathy Spence-Wells, Principal

Subject: Biological Resources Policy Update: Notice of Preparation comments; Draft Oak Resources Management Plan and Draft Oak Resources In-Lieu Fee Nexus Study clarifications; EIR project alternatives

Date: September 18, 2015

1.0 INTRODUCTION

The purpose of this memo is to:

1. Summarize key comments raised in regards to the preparation of the Environmental Impact Report (EIR) during the Notice of Preparation (NOP) public comment period, and
2. Identify proposed revisions to the Draft Oak Resources Management Plan (ORMP) and the Draft El Dorado County Oak Resources In-Lieu Fees Nexus Study based on public and Board comments made during the May 18, 2015 and June 22, 2015 Board hearings, and the EIR scoping session held during the County Planning Commission meeting on August 13, 2015, and
3. Outline potential project alternatives that may be considered in the EIR.

This memo responds to the Board's action on June 22, 2015 to consider project alternatives as part of the environmental review process including: 1) Adding oak resource retention standards; 2) Options for Individual Oak Tree (IOT) replacement mitigation (e.g. acorn to 15 gallon potted tree) and associated analysis of the implications for the In-Lieu Fee Nexus study based on these options; and 3) Oak resource mitigation requirements related to discretionary and ministerial projects.

2.0 NOTICE OF PREPARATION COMMENTS

Following Board action on June 22, 2015 to adopt Resolutions of Intention to amend the General Plan and adopt the ORMP, Dudek and County staff prepared an NOP, as required under the

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California Environmental Quality Act (CEQA). The NOP was circulated for public review along with an Initial Study of potential project impacts. Based on the Initial Study, the NOP identifies that the EIR is expected to evaluate impacts in the areas of aesthetics, agricultural and forestry resources, biological resources, greenhouse gas emissions, and land use and planning. Eighteen written comment letters were received in response to the NOP and several individuals provided oral comments during the EIR scoping session. Key issues for the EIR analysis raised in the NOP comments include the following:

- The effects from tree removal under the proposed project to aesthetics and community character, land use patterns, biological resources, greenhouse gas emissions and sequestration, and other environmental resources, including the potential for development to occur with no on-site retention of trees or woodland
- The effectiveness of the in-lieu fee in conserving oak woodlands
- The effectiveness of tree planting as mitigation and performance standards for such mitigation
- The environmental effects of the exemptions included in the ORMP (such as the exemption from oak woodland mitigation for agricultural activities)
- The environmental effects associated with the proposed Heritage Tree definition (36-inch diameter at breast height) and consideration of reducing the Heritage Tree size
- The internal integration of biological resource objectives and policies and appropriate protection for special status species
- Potential habitat fragmentation impacts, particularly along the Highway 50 corridor
- Consideration of mechanisms and procedures for mitigation monitoring
- Requests for clarification of definitions and terms
- The relationship of the proposed Biological Resources Policy Update and ORMP project to the Targeted General Plan Amendment/Zoning Ordinance Update (TGPAZOU) and the degree to which policy changes under the TGPAZOU would alter or influence the environmental impacts of the Biological Resources Policy Update and ORMP
- The consistency of the proposed Biological Resources Policy Update and ORMP with other portions of the General Plan and the 2004 General Plan EIR

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- The degree to which the project would result in or contribute to land use development within the county, and the related contribution to environmental impacts, such as increased traffic and noise, decreased air and water quality, and increased demand for public services
- The cultural significance of oak trees and oak woodlands
- Soil erosion, soil stability, and water quality effects associated with tree removal
- Potential release of naturally occurring asbestos during tree removal
- Consideration of the role of the natural regeneration of oak trees and woodlands in the impact analysis

Several NOP comments also raised concern that the proposed draft ORMP prohibits conservation within Community Regions and Rural Centers and suggest the EIR should consider whether allowing conservation in these areas would help lessen environmental effects. To clarify, consistent with Board direction on Decision Point 6 (provided at the February 23, 2015 workshop), the ORMP allows for conservation to occur anywhere that the conservation criteria in ORMP Section 4.3 can be met. The ORMP refers specifically to Community Regions and Rural Centers in ORMP Section 4.1, which identifies that these areas were excluded from the County's Priority Conservation Areas (PCAs).

Other NOP comments raised concern that the in-lieu fee amount identified in the draft ORMP has been calculated based on costs for lands only within the PCAs, and that this would result in a fee that is not sufficient to mitigate impacts county-wide. As described in the draft In-Lieu Fee Nexus Study, the fee amount was calculated by translating actual recent and/or current acquisition and management and monitoring costs incurred by Land Conservation Organizations that are actively conserving oak woodland resources or other tree-dominated habitat to a "per-acre" unit cost.

3.0 DRAFT ENVIRONMENTAL IMPACT REPORT

Based on review of the comments provided at the May and June Board hearings and in response to the NOP, Dudek anticipates that the EIR will address the following considerations.

1. Growth and Development projections for El Dorado County: The EIR will discuss and document the growth and development projected to occur within El Dorado County in the near term, long term, and at full buildout of the General Plan.

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2. General Plan Update: The EIR will discuss each potential project impact in the context of the adopted General Plan and zoning ordinance as well as in the context of the County's Targeted General Plan Amendment and Zoning Ordinance Update (TGPA-ZOU).
3. Impacts to Biological Resources: The EIR chapter evaluating impacts to biological resources will consider the following discrete issues raised in public comments:
 - a. Provide a clear and explicit definition of oak woodland, consistent with state law and standard biological habitat nomenclature
 - b. Quantify impacts to habitat types, including oak woodlands, from the projected growth and development in the County
 - c. Define the criteria and thresholds by which the significance of impacts are determined
 - d. Evaluate the adequacy of the proposed General Plan policies in avoiding, reducing, and compensating for impacts to special-status species
 - e. Evaluate potential impacts related to habitat fragmentation, particularly as a result of development along the Highway 50 corridor
 - f. Discuss the degree to which natural regeneration could offset development impacts to oak woodlands
 - g. Evaluate the viability of planting acorns and various tree container sizes as mitigation for impacted trees and woodlands
 - h. Evaluate the specific environmental effect of each exemption in the draft OWMP
 - i. Describe 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
4. Aesthetics: The EIR will evaluate the potential adverse aesthetic impacts related to removal of biological resources, including oak trees and woodlands, under the proposed biological resources policies and draft ORMP and the degree to which the mitigation requirements in the policies and ORMP reduce or avoid those effects. The effect of

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applying different retention standards and replacement tree planting requirements would be evaluated as project alternatives.

Several comments suggest that the scope of the EIR should be expanded to include several resource topics that are not currently anticipated to be evaluated in the EIR. Additional discussion will be provided in the EIR and appendices to support the determination that the project would not affect certain resources.

4.0 DRAFT OAK RESOURCES MANAGEMENT PLAN

To address a range of comments and questions regarding the draft ORMP, this section provides information regarding the definition of oak woodland (item 1), Dudek’s recommended revisions to clarify the draft ORMP (items 2 through 6), and Dudek’s recommended considerations for additional revisions and potential EIR project alternatives (items 7 through 9).

1. The draft ORMP relies on the definition of “oak woodland” that is presented in the 2001 Oak Woodland Conservation Act, codified in Section 1361 of the California Fish and Game Code. This definition states that “oak woodlands’ means an oak stand with a greater than 10 percent canopy cover or that may have historically supported greater than 10 percent canopy cover.” There have been several questions regarding this definition and how it is applied. In typical practice, a qualified professional analyzes site maps and aerial photographs and conducts a field assessment to define the boundaries of an oak woodland. This analysis allows the professional to delineate the boundaries of different vegetation community types, including oak woodlands. If, as determined during data review and field evaluations, an oak-dominated stand of trees has a canopy extent that covers 10% or more of the ground surface area within that stand, it would be classified as an oak woodland. If the canopy extent is less than 10%, then the area would be classified as a different vegetation community type (e.g., savannah, grassland).

Comments have also been received that seek to clarify the term “historically” included in the oak woodlands definition. The 2001 Oak Woodlands Conservation Act emphasizes the importance of conserving oak woodlands in the state that are threatened by impacts resulting from development, firewood harvesting, and agricultural conversion. The inclusion of this language in the code is not specifically discussed, but was likely included to provide protection for stands of trees that would at one time have been classified as oak woodlands, but were subject to a level of tree removal that resulted in the stand having a canopy cover of less than 10%.

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Based on comments provided by the Board, Planning Commission and the public, Dudek recommends that the following items be clarified and/or updated in the revised draft Oak Resources Management Plan (ORMP)

2. Revise Section 2.1 of the draft ORMP to categorize the listed exemptions into numbered report sections for easier reference. This would replace the current bullet list in Section 2.1, which is more difficult to reference.
3. Clarify the exemption for fire safe activities in the draft ORMP so that it is clear that oak resources impacts incurred for maintenance of defensible space for existing structures is exempt. Oak resources impacts for new development, including initial defensible space establishment, are not proposed to be exempt and such impacts would be evaluated as part of the development review process. Similar to existing structures, maintenance of that defensible space thereafter would be exempt from oak resources impact mitigation requirements.
4. Revise the draft ORMP to eliminate the oak woodland exemption for ministerial activities. Ministerial activities include those that may be subject to a county permit (such as a building or grading permit) but are not subject to the County's discretionary review and conditional approval (such as a use permit). Discussion by the Board during the June 22 workshop indicated concern that the provision in the draft ORMP that exempts ministerial activities from the oak woodland mitigation requirements could lead to confusion, inequity, and increased impacts. Revising the draft ORMP to exclude this exemption would result in both the oak woodland and individual oak tree impact mitigation requirements being applied equally to discretionary and ministerial actions that are not otherwise exempt.
5. Clarify the draft ORMP regarding exemptions for diseased trees. The draft ORMP exempts "native oak tree removal when the tree exhibits high failure potential with the potential to injure persons or damage property, as documented in writing by a Certified Arborist or Registered Professional Forester." Dudek recommends that the draft ORMP be revised to clarify that this exemption applies to "dead, dying, and diseased trees" with the same documentation requirement.
6. Revise the draft ORMP to clarify that when a project applicant that independently negotiates purchase of a conservation easement with a willing seller to mitigate impacts, the applicant would still be responsible for paying the Management and Monitoring components of either the Oak Woodland In-Lieu Fee or the Individual Oak Tree In-Lieu

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Fee to the County unless the applicant also independently negotiates acceptance of the conservation easement management and monitoring with a land conservation organization approved by the County. The draft ORMP requires that the conservation easement be in favor of the County or County-approved conservation organization; payment of these fee components would be necessary to ensure funding for management, maintenance, and administration of the easement.

In response to further comments provided by the Board, Planning Commission and the public, Dudek recommends the following for consideration by the Board.

7. Retention Requirements:

There have been several comments and discussion by the Board regarding whether the ORMP should include a minimum oak resource retention requirement. The following discussion reviews current and past county retention policy and provides a recommendation for addressing concerns regarding a minimum retention standard in the EIR.

As described in the following paragraphs, a range of policies addressing oak woodland retention and replacement requirements have been in place or considered for El Dorado County.

Current General Plan Policy 7.4.4.4 identifies two options for mitigating oak woodland impacts. The first option (Option A) outlines oak woodland retention standards, requires retention based on these standards, and requires replacement of the impacted area at a 1:1 ratio. The retention standards range from 60% to 90% of the existing oak canopy on a given project site. As noted in Section 1.A of the 2008 Oak Woodland Management Plan (OWMP), Option A in Policy 7.4.4.4 is “designed to encourage retention of existing oak canopy in areas planned for development.” The second option (Option B) in the existing policy requires payment of an in-lieu fee to mitigate for oak woodland impacts (both direct impacts and indirect impacts due to habitat fragmentation). Under this option, the in-lieu fee payment is based on a 2:1 ratio. Option B of Policy 7.4.4.4 does not require any amount of retention and therefore does not preclude removal of 100% of the oak woodlands from a site. This is noted in Section 2.E. (page 9) of the OWMP, which states “Option B does not require the retention of a minimum percentage of oak canopy on-site.” Additionally, in Section 2.F., the OWMP states “An applicant for a development project may comply with the provisions of Policy 7.4.4.4 by meeting the retention and 1:1 replacement requirements of Option A, providing off-site mitigation through the

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payment of the OWMP fee as established by the OWMP and the implementing fee ordinance, or a combination of the two provisions.”

Under the 1996 General Plan, Policy 7.4.4.4 established standards for the “percent of canopy cover to be retained **or** [emphasis added] replaced.” As in the 2004 General Plan, the “retain or replace” requirements ranged from 60% to 90% based on a property’s baseline canopy coverage. The 1996 General Plan Policy 7.4.4.4 was not implemented. Specifics related to “replacement” were to be addressed in the Zoning Ordinance Update following the adoption of the 1996 General Plan.

Additionally, Mitigation Measure 5.12-1(f) in the 2004 General Plan EIR required oak woodland retention/replacement (Option A) or in-lieu fee payment at a 2:1 ratio (Option B); however, under this Mitigation Measure, the Option B mitigation was to be calculated based on the acreage of all on-site woodlands, not just those impacted.

Consistent with the 2008 OWMP, the current draft ORMP does not include a minimum retention requirement. The replacement requirements proposed in the draft ORMP are intended to incentivize onsite retention by requiring a higher mitigation ratio when a greater percentage of existing oak woodland is impacted. In discussing whether to add a minimum retention requirement to the ORMP, concerns raised by the Board have included the potential to render a property undevelopable which may lead to claims of property taking, the effectiveness of a retention standard in reducing impacts, and the need for any such standard to avoid unnecessary restrictions on economic development opportunities in the County.

Regarding the property takings concern, Dudek recommends that should a minimum retention requirement be considered, it should include language allowing for exemptions from the requirement in cases where the requirement would restrict reasonable use of the property.

Regarding the other concerns, Dudek recommends that one or more minimum retention standards be considered for analysis as project alternatives in the EIR, as discussed in Section 6.0 of this memo, Draft Environmental Impact Report Alternatives. While an EIR alternatives analysis is typically presented at a lower level of detail than the proposed project, a more detailed analysis (commonly called an equal-weight or co-equal analysis) can be prepared to provide a complete environmental analysis of a project alternative. Preparing an equal-weight analysis of one or more retention standards alternatives would provide the Board with information regarding the ability of a retention standard to reduce

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or avoid potentially significant impacts to oak resources. Based on the results of an equal-weight analysis in the EIR, the Board would have the opportunity to revise the retention standard in the ORMP prior to adoption, if desired. Dudek's scope of work includes consideration of up to three project alternatives in the EIR, including the no project alternative at a comparative level of detail. Analysis of any additional alternatives and/or of any equal-weight alternatives would necessitate additional time and budget.

8. Replacement Tree Sizes:

During its June 22, 2015 hearing, the Board requested further clarification and discussion on the potential for allowing different sized container trees to be planted for mitigation. Currently, the draft ORMP requires individual native oak trees to be replaced with 15-gallon sized trees and allows replacement planting for oak woodland mitigation to utilize a variety of smaller sized containers (1-gallon (or equivalent)) or acorns (with a 3:1 replacement ratio). Based on the Board's request, further research was completed regarding standard replacement tree container sizes, establishment success, and pricing.

The draft ORMP includes requirements to mitigate impacts to individual native oak trees on an inch-for-inch basis. The inch-for-inch replacement requirement in the draft ORMP was taken directly from General Plan Policy 7.4.5.2. The typical trunk diameter of a 15-gallon nursery stock oak tree is one inch. The requirement in the draft ORMP that a 15-gallon sized tree be used for replacement planting of native oak trees originates in the 2004 General Plan EIR, which states that "the replacement requirement shall be calculated based on an inch-for-inch replacement of removed oaks and shall consist of a minimum 15-gallon tree."

In addition to 15-gallon sized containers, other 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, and 5-gallon. One of the most important components to consider 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 containers¹, which may adversely affect post-planting root establishment and successful adaptation to the planting site². In nurseries, oak seedlings are "upsized"

¹ Hobbs, T. and Young, T.P. 2001. Growing Valley Oak. *Ecological Restoration*. 19:3.

² Young, T.P. and Evans, R.Y. 2005. Initial mortality and root and shoot growth of valley oak seedlings outplanted as seeds and as container stock under different irrigation regimes. *Native Plants Journal* 6.1: 83-90.

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into larger containers as they grow (e.g., from 1-gallon to 5-gallon, from 5-gallon to 15-gallon). Smaller containers are used more commonly as revegetation or restoration plantings and larger containers used more commonly in landscape projects.

Acorn and oak 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^{3,4,5}. In some cases, acorns and smaller containers can outgrow larger container-sized trees⁶, primarily due to taproot development being more successful as it is not inhibited by excessive time in containers. In the study by McCreary⁷, blue oak acorns and 4-month-old seedlings outgrew 1-year-old seedlings over a 4-year period once planted. The variation in seedling container sizes allows for flexibility in oak tree replacement projects that need to consider soil type, maintenance needs, access, and available irrigation.

While successful establishment and variation in growth rates of different size and age oak seedlings has been documented, no published research was found that directly compares the growth rates of 1-gallon or 5-gallon oak seedlings with growth rates for 15-gallon sized oak trees. Although anecdotal evidence indicates that smaller planting stock can catch up to larger planting stock once planted, published research cannot support an assumption that a 1- or 5-gallon seedling would grow to or surpass the size of 15-gallon sized tree over the same time period once planted.

Under the inch-for-inch replacement ratio, the Board could allow for flexibility in container size requirements by establishing variable replacement ratios based on the typical trunk diameter of seedlings in various containers. To evaluate this potential approach, local restoration nurseries in the greater Sacramento area and in-house habitat restoration staff with experience propagating and growing native oak trees were contacted to discuss container tree sizes, ages, and costs. Based on typical trunk diameter measurements for each container size, Table 1 identifies a mitigation ratio that identifies

³ McCreary, D. 2009. Regenerating Rangeland Oaks in California. University of California Agriculture and Natural Resources, Publication 21601e.

⁴ McCreary D. and Lippitt, L. 1997. Producing blue oak seedlings: Comparing mini-plug transplants to standard bareroot and container stock. Pp. 253-254 in USDA Forest Service General Technical Report PNW-389.

⁵ McCreary, D. 1991. Artificially Regenerating Native Oaks in California. Oaks 'n' Folks - Volume 6, Issue 3 - December 1991.

⁶ McCreary, D. 1996. The effects of stock type and radicle pruning on blue oak morphology and field performance. *Annales des Sciences Forestieres*. 53:641-648.

⁷ McCreary, D. 1996. The effects of stock type and radicle pruning on blue oak morphology and field performance. *Annales des Sciences Forestieres*. 53:641-648.

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the number of trees at each container size necessary to provide one-inch of trunk diameter replacement. A summary of container sizes, trunk diameters, ages, costs, and calculated replacement ratios is presented in Table 1.

**Table 1
Summary of Potential Replacement Tree Sizes**

Container Size	Typical Trunk Diameter (in.)	Age	Per-Inch Ratio	Median Unit Cost
Acorn	n/a	0-6 months	3.0	n/a
1-gallon/TreePot 4*	0.50	6 months-1 year	2.0	\$7.98
5-gallon	0.75	2-3 years	1.5	\$23.48
15-gallon	1.0	3+ years	1.0	\$60.00

*A TreePot 4 is a container designed for taprooting species (e.g., oaks) that measures 4-inches square at its top and is 14 inches deep. Its cubic inch measurement (224 cubic inches) equates to 0.97 gallons.

Under the inch-for-inch replacement approach, planting requirements could be based on the ratios in Table 1. For example, mitigation required for a 12-inch diameter oak tree could include planting 12 15-gallon trees, 18 5-gallon trees, 24 1-gallon/TreePot 4 trees, or 36 acorns. A combination of sizes could also be used to meet the inch-for-inch replacement standard. The 7-year establishment period required in the draft ORMP for replacement tree plantings would apply. This requires that the planted trees and acorns be monitored for 7 years to verify their successful establishment, and replacement planting for trees that do not successfully establish.

It is noted that use of the smaller container size trees, which results in planting of a greater number of trees, would increase the maintenance and monitoring costs. The Board would need to determine on which tree container size the in-lieu fee should be based. Table 2 provides an estimate of the per-inch in-lieu fee amount based on costs at each tree container size and the total number of trees required to mitigate for the loss of one tree diameter inch.

**Table 2
Summary of Potential Inch-for-Inch In-Lieu Fees**

Container Size	Median Unit Cost	Planting Cost	Management and Monitoring per Tree (7 Years)	Number of Trees Required Per Inch	Administration (5%)	Potential Per-Inch Mitigation Fee (rounded)
Acorn	\$0*	\$7.98*	\$56.70**	3	\$3.23	\$68.00

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Table 2
Summary of Potential Inch-for-Inch In-Lieu Fees

Container Size	Median Unit Cost	Planting Cost	Management and Monitoring per Tree (7 Years)	Number of Trees Required Per Inch	Administration (5%)	Potential Per-Inch Mitigation Fee (rounded)
1-gallon/TreePot 4	\$7.98	\$7.98	\$56.70	2	\$7.27	\$153.00
5-gallon	\$23.48	\$23.48	\$56.70	1.5	\$7.77	\$163.00
15-gallon	\$60.00	\$60.00	\$56.70	1	\$8.84	\$186.00

*It is expected that acorns would be collected at no charge and planting 3 acorns would incur labor and material costs similar to planting a 1-gallon/TreePot 4 tree (\$7.98).

**Acorn plantings would require 3 acorns per inch under this approach. Management and monitoring costs are expected to be the same as that for individual trees as the 3:1 ratio is intended to account for acorn mortality, with one live tree surviving.

Dudek recommends that use of various container tree sizes for tree replacement planting be considered as a project alternative in the EIR. Data that could support use of smaller container size trees for mitigation includes published research that has documented the feasibility of successfully planting and establishing acorns and various oak seedling sizes. Additionally, smaller sized containers (i.e., 1-gallon and TreePot 4 size) are typically used in revegetation/restoration projects and may be less likely to include container-bound trees (due to less time spent in containers), allowing them to better establish in the field. Further, use of 1-gallon size container trees would be consistent with the draft ORMP requirements for replanting as mitigation for impacts to oak woodlands.

As discussed under Item 9, Dudek further recommends that the Board consider whether the draft ORMP evaluated in the EIR as the proposed project should be modified to reflect a tree-for-inch replacement standard for individual native oak tree replacement. If the draft ORMP is modified, the Notice of Preparation for the EIR would be recirculated.

9. Individual Oak Tree Replacement Standard:

During the June 22 workshop, the Board also discussed whether the inch-for-inch replacement standard for individual native oak trees contained in the County's existing policies and the 2008 OWMP is the appropriate standard for the county. As a modification to the proposed project, the Board may consider a tree-for-inch replacement requirement. This would require that for each diameter inch of individual native oak tree removed, one oak tree of any container size (or 3 acorns) would be planted. For example, to mitigate impacts to a 12-inch diameter oak tree, a project applicant would be responsible for planting 12 trees of any container size (or paying the equivalent in-lieu

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fee). In the case of an impact to a Heritage Oak Tree, the mitigation would occur at a 3:1 ratio. For example, to mitigate impacts to a 36-inch diameter oak tree, a project applicant would be responsible for planting 108 trees of any container size (or paying the equivalent in-lieu fee). Under this approach, the 7-year management and monitoring period would still be required to ensure successful establishment of each replacement tree. Under the tree-for-inch standard, tree planting would not replace the number of diameter inches removed. However, it would require planting of the same number of trees that would have been planted under an inch-for-inch standard that requires use of 15-gallon trees. To compare the two replacement standards, mitigation for removal of one 12-inch tree under the current draft ORMP would require a project applicant to plant 12 15-gallon oak trees; under the tree-for-inch mitigation standard mitigation for the same impact would require planting of 12 trees of any container size, or 36 acorns.

Data that could support the tree-for-inch mitigation standard includes published research that has documented the feasibility of successfully planting and establishing acorns and various oak seedling sizes. Additionally, smaller sized containers (i.e., 1-gallon and TreePot 4 size) are typically used in revegetation/restoration projects and may be less likely to include container-bound trees (due to less time spent in containers), allowing them to better establish in the field.

To compare the effect of these approaches on the individual oak tree in-lieu fee, an analysis of unit costs and anticipated management and monitoring fees was conducted. Table 3 summarizes the potential per-inch mitigation fees, by container size, using the tree-for-inch approach. The fees presented in Table 3 are consistent with the approach included in the draft Nexus Study. Specifically, the median unit cost is doubled to account for planting costs and the management and monitoring costs remain unchanged from the draft Nexus Study, as those costs were calculated on a per-tree basis and are expected to remain the same. The 5% administration cost is calculated from the sum of the doubled median unit cost and the management and monitoring cost.

Because smaller sized containers (i.e., 1-gallon and TreePot 4 size) are the sizes typically used in revegetation/restoration projects and may be less likely to include container-bound trees (due to less time spent in containers), Dudek recommends that the Board consider whether the draft ORMP should be modified to establish a tree-for-inch mitigation standard with the in-lieu fee determined based on the 1-gallon/TreePot 4 container size. The tree-for-inch standard would be the lesser burden for applicants. If the Board finds that this is a reasonable approach to achieving a balance between the County's objectives for resource protection and economic development, the draft ORMP

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could be modified to establish the tree-for-inch replacement standard as the proposed project. As discussed under Section 6.0, if the impact analysis finds that this replacement standard would not reduce impacts to a less than significant level, the EIR could include additional consideration of other replacement standards (inch-for-inch) and use of other container sizes to establish the in-lieu fee amount as mitigation measures and/or project alternatives.

Table 3
Summary of Potential Tree-for-Inch In-Lieu Fees

Container Size	Median Unit Cost	Planting Cost	Management and Monitoring (7 Years)	Administration (5%)	Potential Per-Inch Mitigation Fee (rounded)
Acorn	\$0*	\$7.98*	\$56.70**	\$3.23	\$68.00
1-gallon/TreePot 4	\$7.98	\$7.98	\$56.70	\$3.63	\$76.00
5-gallon	\$23.48	\$23.48	\$56.70	\$5.18	\$109.00
15-gallon	\$60.00	\$60.00	\$56.70	\$8.84	\$186.00

*It is expected that acorns would be collected at no charge and planting 3 acorns would incur labor and material costs similar to planting a 1-gallon/TreePot 4 tree (\$7.98).

**Acorn plantings would require 3 acorns per inch under this approach. Management and monitoring costs are expected to be the same as that for individual trees as the 3:1 ratio is intended to account for acorn mortality, with one live tree surviving.

5.0 DRAFT OAK RESOURCES IN-LIEU FEE NEXUS STUDY

In consideration of comments received from the public, the Board, and County staff, Dudek and New Economics & Advisory recommend that the appeals section be removed from the draft In-Lieu Fee Nexus Study and added to the ORMP.

Further, the Nexus Study would be updated to reflect any Board direction provided in response to Items 8 and 9 in Section 4.0 of this memo. The revised draft Nexus Study would be circulated for public review at the same time as the Draft EIR.

6.0 DRAFT ENVIRONMENTAL IMPACT REPORT ALTERNATIVES

CEQA Requirements for Alternatives Analysis

CEQA requires that an EIR evaluate project alternatives that could reduce or avoid the proposed project's significant impacts. This is a critical component of the EIR in support of CEQA's goals to foster informed decision making and public participation (14 CCR 15126.6(a)).

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Specifically, the CEQA Guidelines, state that EIRs must “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)). In addition, the Guidelines provide the following direction for shaping the alternatives analysis:

- “The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Of those alternatives, the EIR need examine in detail only the ones that the lead agency determines could feasibly attain most of the basic objectives of the project. The range of feasible alternatives shall be selected and discussed in a manner to foster meaningful public participation and informed decision making” (14 CCR 15126.6(f)).
- Alternatives should be considered even if they “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).
- 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 (14 CCR 15126.6(d)).
- CEQA allows that some project alternatives may be initially considered but ultimately rejected from analysis in the EIR if the alternative is not capable of meeting the basic project objectives and/or not likely to reduce one or more of the project’s significant environmental effects (14 CCR 15126.6(c)).

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Biological Resources Policy Update and ORMP EIR Alternatives Analysis

Based on review of the public and Board comments throughout the Biological Resource Policy Update and ORMP process, particularly those provided at the May and June Board hearings and comments received on the NOP, Dudek anticipates the following considerations will inform the EIR, and particularly the alternatives analysis. There are several ways in which these topics can be incorporated into the EIR – as alternatives selected for analysis in the Draft EIR, as alternatives that are initially considered but rejected from further analysis, and as mitigation measures. Further, for those alternatives that are selected for analysis, the analysis can be conducted as a comparative analysis demonstrating the impacts of the alternative relative to those of the proposed project, or as an equal-weight analysis that quantifies the impacts of project alternative in the same level of detail as the analysis of the proposed project impacts. Dudek’s scope of work includes consideration of up to three project alternatives in the EIR, including the no project alternative at a comparative level of detail. Analysis of any additional alternatives and/or of any equal-weight alternatives would necessitate additional time and budget.

As provided in the CEQA Guidelines, the identification of project alternatives will reflect the EIR determinations regarding the project’s significant impacts. They must also reflect the County’s objectives for resource management as well as the public comments received on the project and the NOP. Any alternatives that are initially considered in the EIR preparation but are not carried forward for detailed analysis will be described, along with the basis for the decision to omit such alternatives from the detailed analysis.

1. No Project: 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 standards (Option A) and in-lieu fee (Option B) in Policy 7.4.4.4, inch-for-inch tree replacement using 15-gallon container trees, and completion of the Integrated Natural Resources Management Plan as required in Policy 7.4.2.8.
2. Tree Replacement Standards: In consideration of the Board’s June 22, 2015 action, Board discussion throughout the Biological Resources Policy Update and ORMP process, and public comment, items 8 and 9 in Section 4.0 of this memo provide the Board with additional information to support the Board’s selection of a tree planting mitigation standard to include in the draft ORMP, and therefore the proposed project. One or more project alternatives could consider alternate replacement standards if such standards could result in reducing or avoiding significant impacts that would occur under the

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proposed project. For example, if the Board directs that the draft ORMP should be revised to require replanting with 1-gallon container trees, the EIR alternative could consider whether impacts would be reduced if the requirement were increased to 5-gallon containers.

3. Retention Standards: One or more project alternatives could consider adding a minimum retention standard to the draft ORMP. Selection of a specific retention standard to be evaluated should reflect the County's objectives for General Plan implementation, and may include the Board's consideration of one or more specific minimum retention standards as a percentage of the existing oak woodland on a site or a sliding scale of retention similar to existing policy Option A, the requirements of the 1996 General Plan Policy 7.4.4.4, or another retention standard. In addition, as warranted through the environmental impact analysis, the EIR may recommend minimum retention standards in certain locations (such as near Highway 50 to address concerns regarding habitat fragmentation, or in areas outside the mapped Priority Conservation Areas and Important Biological Corridors). The analysis of a retention standard alternative would also include consideration of the degree to which minimum onsite retention could reduce or avoid adverse effects associated with habitat loss and fragmentation.
4. Conservation Standards: In response to NOP comments, the EIR will consider whether the minimum acreage requirements in the conservation standards should be reduced or omitted. 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 PCAs shall occur on minimum contiguous habitat blocks of 5 acres" and the requirement in proposed Policy 7.4.2.8.D 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."
5. Habitat Fragmentation/Wildlife Movement: Comments provided on the NOP have included suggestions that the EIR should consider omitting the Important Biological Corridors (IBC) designation and applying requirements regarding wildlife movement county-wide to address concerns of equal treatment for all property owners. The analysis of alternatives that expand or alter requirements related to wildlife movement impacts would include consideration of the degree to which habitat loss and fragmentation could adversely affect wildlife movement and survival. Other NOP comments have suggested that project alternatives should consider more stringent requirements in the Highway 50 corridor due to the habitat loss and fragmentation associated with the development pressure in this area, such as requiring a combination of on-site mitigation and payment

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of the in-lieu fee. Additionally, the EIR will consider whether mechanisms to require that mitigation locations be determined in part based on the location of the impact would be effective at reducing impacts.

6. Special-Status Species: The EIR will consider whether additional policy revisions are necessary to protect special-status species, particularly those other than the Pine Hill preserve plants.

7.0 BOARD DIRECTION

This memo provides a summary of the NOP comments and a discussion of how those comments will be addressed in the Draft EIR. No specific direction is requested from the Board on sections 2.0 and 3.0 of this memo.

Section 4.0 of this memo offers suggestions for clarification of the ORMP (items 2 through 6) and presents an analysis of options for alternative replacement tree sizes and replacement standards for impacts to individual native oak trees (items 7 through 9). Dudek requests direction from the Board regarding whether or not to make the edits suggested in items 2 through 6 and whether to modify the draft ORMP tree replacement standards for impacts to individual native oak trees as discussed in items 7 through 9. This includes considerations of issues raised in the Board's June 22, 2015 action regarding retention standards, options for tree planting mitigation, and oak resource mitigation requirements related to discretionary and ministerial projects. It also includes a recommended minor format revision and issues raised in public comments, such as concerns regarding the draft ORMP oak woodland mitigation exemptions.

Section 5.0 of this memo offers a suggestion to delete the appeals section from the Oak Resources In-Lieu Fee Study. Dudek requests direction from the Board regarding whether or not to make the edit suggested in that section. Section 5.0 also notes that additional revisions to the Fee Study would be necessary if the Board directs that the tree replacement standards in the draft ORMP should be revised.

Section 6.0 of this memo outlines several potential project alternatives that could be evaluated in the EIR. Dudek requests Board discussion and direction regarding:

1. specific retention standards and tree replacement standards that may be appropriate to include in the alternatives analysis;
2. whether there are other alternatives that should be considered, and

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3. whether any project alternatives should be considered at an equal level of detail as the proposed project. Dudek's scope of work includes consideration of up to three project alternatives in the EIR, including the no project alternative at a comparative level of detail. Analysis of any additional alternatives and/or of any equal-weight alternatives would necessitate additional time and budget. CEQA requires that the Board adopt all feasible mitigation measures and alternatives that substantially reduce or avoid the project's significant impacts. In other words, if the proposed project is found to result in a significant and unavoidable impact and a feasible project alternative that meets most of the basic project objectives is found to reduce that impact to a less than significant level (while also not resulting in any new or more severe impacts), CEQA directs that the Board should adopt that alternative. Analysis of an equal-weight alternative would include a detailed impact analysis for that alternative, which would provide the necessary environmental review to allow the Board to adopt either the proposed project or the alternative, as appropriate based on the impact analysis.