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MEMORANDUM

DATE: November 7, 2006 Agenda of: November 9, 2006

TO: Planning Commission Item #: 12.a.

FROM: Steven Hust, Principal Planner

SUBJECT: Draft Interim Interpretive Guidelines for Oak Woodlands

The Planning Commission last reviewed the Draft Interim Interpretive Guidelines for Oak Woodlands (Guidelines) relating to the implementation Of General Plan Policy 7.4.4.4, Option A, on October 26, 2006. The Commission indicated it was prepared to approve the Guidelines with the inclusion of: a streamlined ministerial project review process that removed the requirement for Biological Resources Reports prepared by qualified professionals, and further defined Fire Safe Plan and Agricultural Cultivation exemptions.

The attached Guidelines incorporate the revisions (in underline and strikeout format) requested by the Commission and further streamline and clarify the implementation of the Guidelines by:

- Defining Fire Safe Plan exemptions by referring the user of the Guidelines to existing County and CDF rules, regulations and guidelines applicable to structural fire protection, and fuel modification approaches applicable to Oak Woodlands.
- Defining Agricultural Cultivation to include agricultural operations by reference to General Plan Policy 2.2.1.2 (General Plan Land Use Designations), 2.2.1.5 (Table 2-4 General Plan Land Use Designation and Zoning District Consistency Matrix), Policy 8.1.1.8 (Agricultural Lands Characteristics), Policy 8.2.2.1 (Agricultural Operations), and Policy 7.1.2.7 (Conversion of Natural Vegetation to Agricultural Lands).
- Provides for a streamlined oak canopy replacement process and simplified monitoring/reporting requirements for ministerial projects on existing lots that meet certain criteria (see Attachment 1).
- Provides for a more specific 1:1 oak canopy replacement ratio definition.
- Provides for a simplified oak canopy replacement formula that accounts for the number of oak trees and the land area affected.
- Minimizes the content requirements of Biological Resource Reports and Important Habitat Mitigation Plans.
- Provides the option for off-site replacement for discretionary projects as well as for existing lots without a requirement for a reasonable use determination.

The Guidelines do not include proposed actions or procedures requiring an amendment to the General Plan. Such suggestions will be addressed during the preparation, review, and approval of the Oak Woodlands Management Plan, implementing ordinances, and concurrent General Plan review.

Development Services staff is working on the development of standard conservation easement agreement forms and tree protection agreements necessary to implement the Guidelines. These components of the overall oak woodland program are planned to be ready in the near future and will be implemented upon review and approval by County Counsel.

Attachments:

1. Streamlined Process for Ministerial Projects on Existing Lots
2. Draft Interim Interpretive Guidelines for Oak Woodlands, including: Site Assessment Form, Biological Resources Study and Important Habitat Mitigation Program Guidelines.

Streamlined Oak Canopy Cover Replacement Process for Ministerial Projects on Existing Lots

These procedures apply only to ministerial projects on existing lots which are:

Not located within or directly adjacent to the Important Biological Corridor or Ecological Preserve as designated in the General Plan;
Not affecting a designated landmark or heritage tree as defined in the Guidelines;
Not using off-site replacement or off-site preservation;
Not requesting relief from retention requirements;

(If any of the above criteria are not satisfied by the project, completion of a Site Assessment Form by a qualified professional is required for further screening to determine if a full Biology Report and Important Habitat Mitigation and Monitoring Plan are required.)

1. **Canopy Area:** Affected canopy area can be determined by aerial photography (does not require report by qualified professional). Detailed tree inventory not required.

2. **Replacement**: The replacement requirement is calculated as set forth in the tree replacement formula. Refer to the 1:1 Woodland Replacement definition found in the Interim Interpretive Guidelines for Policy 7.4.4.4 (Option A). County inspection staff will verify that replacement planting has occurred prior to final building inspection.

3. **Planting Assistance:** The replacement plantings shall be nurtured using techniques consistent with the most current version of the University of California publication "How to Grow California Oaks." Replacement planting may be done by the property owner with the assistance, if needed, of a master gardener, licensed landscape contractor, landscape architect, or other qualified professional as specified in the interim guidelines.

4. **Recorded Documents:** A Notice of Restriction (or similar Recorded Covenant on forms specified by the County) shall be recorded on the property by the County detailing the replacement area, replacement requirements, maintenance, tree protection, and monitoring provisions.

5. **Monitoring**: For on-site replacement, self-monitoring, as described in the Guidelines, may be used. At the conclusion of either 10 years for replacement trees, or 15 years for replacement acorns, the property owner provides a final report to the County documenting the success rate of replacement. If the success rate is less than 90 percent, additional trees or acorns must be planted to replace those that did not originally survive. No further monitoring is required. County reviews report and records Release of Notice of Restriction indicating that replacement and monitoring requirements have been satisfied.

6. **Biology Report:** Not Required.

7. **Important Habitat Mitigation/Monitoring Program**: Not Required

8. **Conservation Easement**: Not Required.

9. **Tree Survey, Preservation and Replacement Plan:** Not Required.

10. **Funding for Ongoing Maintenance and Monitoring:** Not Required.

Additional Options Available:

1. Off-site replacement (with expanded monitoring program and conservation easement as specified in the Guidelines);

2. Off-site preservation (with expanded monitoring program and conservation easement as specified in the Guidelines);

3. Relief from Retention and Corridor Continuity Requirements (if necessary to ensure "reasonable use" subject to the findings/procedures in the Guidelines);

4. Ability to propose specialized planting density/replacement per the recommendations of a qualified professional;

5. Payment of Option B Mitigation Fee in lieu of replacement (when available).

~~Public Review Draft~~

INTERIM INTERPRETIVE GUIDELINES FOR EL DORADO COUNTY GENERAL PLAN POLICY 7.4.4.4 (OPTION A)

BACKGROUND

The adopted 2004 El Dorado County General Plan, Conservation and Open Space Element provides for the conservation and protection of soils, minerals, water, wildlife and fisheries, vegetation, cultural resources, and open space. Policies adopted in this element serve to guide the design of new development to meet these objectives. Policy 7.4.4.4 (Option A), reproduced below, addresses oak canopy retention standards. These Guidelines are intended to clarify the scope and implementation of Option A of this policy and provide for a process to consider limited modifications to oak canopy replacement and retention requirements for existing legal parcels if necessary to ensure reasonable use of those parcels. Option B (Mitigation Fee) will be available upon completion of the Oak Woodland Management Plan (OWMP) and related fee studies and implementing ordinances.

OBJECTIVE 7.4.4: FOREST AND OAK WOODLAND RESOURCES

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.

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
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 Program 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.

DEFINITIONS

For the purposes of these Guidelines, the following words and phrases shall have the meanings respectively ascribed to them by this section:

1:1 Woodland Replacement (Replacement Land Area/Replacement Tree/Replacement Acorn-Density Ratio): Replacement of removed tree canopy shall be at a 200 trees (saplings or one gallon trees) per acre density or as recommended by a qualified professional. Replacement is subject to intensive to moderate management[1] and 10 to 15 years of monitoring, respectively. The survival rate shall be 90 percent as specified in the approved monitoring plan for the project, prepared by a qualified professional. Acorns may be used instead of saplings or one gallon trees. If ~~A~~acorns are used, they shall be planted at a 3:1 ratio[2] as determined by the tree replacement formula. The replacement is as follows:

- Replacement replanting from saplings or one-gallon trees, that are locally sourced, shall follow this formula for ratios:

  (Replacement Area in acres) x 200 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:

  (Replacement Area in acres) x (200 trees per acre) x (3 acorns per tree) = the total number of acorns to be replanted

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 (I.S.A.) or other recognized professional organization of arborists that provides professional advice and licensed professionals to do physical work on trees in the County.

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[1] Management intensity assumes that 10 years after planting 1 year old saplings that trees that have been nurtured with high management intensity will be on average 2 inches DBH with 90 percent survival; moderate management intensity will result in trees that are on average 1.5 inches DBH with 85 percent survival. See Standiford et al 2002.

[2] McCreary DD. 2001. *Regenerating rangeland oaks in California*. Berkeley (CA): University of California, Agriculture and Natural
Resources. Communication Services Publication #21601. 62 p.

Biological Resources Study and Important Habitat Mitigation Program: The Biological Resources Study is an evaluation of a project site that quantifies the amount of important habitat, by habitat type, and addresses the potential for the project to adversely affect important habitat through conversion or fragmentation. The Important Habitat Mitigation Program identifies options that would avoid, minimize, or compensate for impacts on important habitats in compliance with General Plan policies 7.4.4.4 and 7.4.5.2, including a monitoring and reporting component (General Plan 2004 Measure CO-U). The Important Habitat Mitigation Program includes components which address "Certified Arborist Reports" and "Tree Protection Plans". The Biological Resources Study and Important Habitat Mitigation Program shall be prepared by a qualified professional. See separate guidelines for detailed requirements.

CDF: California Department of Forestry.

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.

Diameter at breast height (Dbh): The measurement of the diameter of the 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 by the El Dorado County Department of Forestry Guidelines (http://www.co.el-dorado.ca.us/building/PDF/Booklets/Fire_safe_regs.pdf), and the CDF General Guidelines for Creating Defensible Spaces (http://www.bof.fire.ca.gov/pdfs/4291finalguidelines2_23_06.pdf), and as defined by Goal 6.2 Fire Hazards of the Public Health, Safety, and Noise element of the General Plan.

Given Unit of Land: The land contained within the project site. If the project site, prior to any proposed land division, is comprised of multiple parcels, the parcels may be treated as a single given unit of land for the purpose of calculating oak canopy cover and retention requirements.

Habitat: The physical location or type of environment in which an organism or biological population lives or can be found (General Plan 2004).

Heritage trees: Trees planted by a group or individuals or by the City or the County in commemoration of an event or in memory of a person figuring significantly in history (General Plan 2004).

Important Habitat: Defined as habitats that support important flora and fauna, including deer winter, summer, and fawning ranges and migration routes; stream, river, and lakeshore habitat; fish spawning areas; seeps, springs, and wetlands; oak woodlands; large expanses of native vegetation; and other unique plant, fish, and wildlife habitats

generally located within or adjacent to designated Ecological Preserves, the Important Biological Resource Corridor Overlay, or in other locations otherwise recognized as being important habitat by Federal, State or County agencies.

Landmark Tree: Trees whose size, visual impact or association with a historically significant structure or event has led the government to designate them as landmarks (General Plan 2004)

Licensed engineers and land surveyors: Professionals that are licensed by the California Board for Professional Engineers and Land Surveyors.

Oak Canopy Cover: The area directly under the live branches of the oak trees, often defined as a percent, of a given unit of land.

Oak Woodlands: A given unit of land, with one or more groupings of live trees, where the dominant species (i.e. a plurality) of the live trees within the groupings are native oaks (genus quercus). "Stand" means a group or groupings of trees.

Oak woodlands with oak tree canopy coverage of less than 10% of the project site for parcels one acre or less in size, or oak woodlands with oak tree canopy coverage of less than 1% on parcels of land that are more than one acre in size, are **not** subject to the oak tree canopy cover retention requirements of Policy 7.4.4.4 Option A.

Protected Trees: Trees of the genus quercus (oak trees), landmark, and heritage trees, which are subject to County review pursuant to General Plan Policies 7.4.4.4 and 7.4.5.1 and 7.4.5.2 .

Qualified Professional: An arborist certified by the International Society of Arborists, 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 timber (California Licensed Foresters Association).

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: See 1:1 Woodland Replacement definition.

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 (General Plan EIR).

Tree Survey, Preservation, and Replacement Plan: A plan that identifies trees at the project site, shows how specific trees shall be protected during development and related work, and includes any required mitigation measures and ensures viability of trees after construction. A Tree Survey, Preservation, and Replacement Plan is a stand-alone report, and is also included as part of an Important Habitat Mitigation Program. The plan shall be prepared by a qualified professional. See separate guidelines for requirements.

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 montane riparian.

Guidance for Application of Policy 7.4.4.4:

1. Trees subject to canopy retention and replacement – Policy 7.4.4.4 is intended to apply exclusively to retention and replacement of oak canopy within oak woodlands. All oak trees, of all sizes, are included in the measurement of oak canopy.

   Any oak tree canopy, landmark or heritage trees, including native oak trees that do not qualify for review as oak woodland under Policy 7.4.4.4 may be subject to review under Policy 7.4.5.2.

2. Minimum oak canopy area – The oak canopy retention requirements of Policy 7.4.4.4 are intended only to apply to:

   a. Parcels greater than 1.0 acre that contain 1 percent or more oak canopy cover; or
   b. Parcels 1.0 acre or smaller that contain 10 percent or more oak canopy cover.

3. Exceptions to oak canopy retention/replacement requirements – Policy 7.4.4.4 intends that the following activities are not subject to oak canopy cover retention or replacement requirements:

   a. Agricultural cultivation/operations, whether for personal or commercial purposes, on land planned or zoned for agricultural use per Policy 2.2.1.5 (Table 2-4 General Plan Land Use Designation and Zoning District Consistency Matrix, page 21), by the El Dorado County General Plan or Zoning Ordinance;

   b. Tree removal associated with an approved Fire Safe Plan ~~–~~as necessary to protect an existing structure or structures The Fire Safe Plan shall take into consideration the El Dorado County Department of Forestry SRA Fire Safe Regulations and the CDF General Guidelines for Creating Defensible Space. Fire Safe Plans are prepared by a RPF or other qualified professional subject to review and approval by the County. See Exhibit One for more information.

   c. Development on parcels that are one acre or larger and have less than 1 percent total oak canopy cover;

   d. Development on parcels that are less than one acre and have less than 10 percent total oak canopy cover; or

   e. Oak trees determined to be dead or diseased and dying by a certified arborist or registered forester are excluded from calculations of canopy cover and retention requirements.

~~5~~4. Qualified Professional – For the purposes of Policy 7.4.4.4, "Qualified Professionals", refers to professionals approved by Development Services, suitably trained and experienced in wildlife biology, botany, arboriculture, or forestry such as qualified wildlife biologists, I.S.A. certified arborists, or Registered Professional Foresters (RPFs) can determine "habitat" value and canopy cover of oak woodlands determined from baseline aerial photography. The professional may be under contract to either the County or the property owner. The professional should be able to perform a species-focused site survey, use GPS to locate species and habitat on a map or aerial photograph, and should be able to address oak tree corridors (if applicable) for Policy 7.4.4.5. The qualified professional will need to prepare a Biological Resources Study and Important Habitat Mitigation Program that satisfies County requirements. In the event that a dispute arises involving the contents of the Biological Resources Study and/or Important Habitat Mitigation Program the County may refer the matter to an outside qualified consultant, retained by the County and paid for by the applicant/property owner, to develop recommendations for dispute resolution.

If there is a need to provide a survey level of detail to fully ascertain which canopy level applies per Policy 7.4.4.4, then the survey shall be conducted by a California professional engineer or a California professional land surveyor.

Generalized maps may be provided by a qualified professional using GPS.

~~6~~5. Site Assessment Form and Tree Survey, Preservation, and Replacement Plan Required: An initial Site Assessment Form (Attachment 1) and Tree Survey, Preservation, and Replacement Plan must be prepared by a qualified professional and submitted to the Planning Services Division for review for all projects proposing removal of oak canopy cover. The purpose of the Site Assessment is to determine if the proposed removal of oak canopy cover would impact any of the following:

- Landmark or heritage trees (See Policy 7.4.5.2 A);
- Oak corridor continuity, between all portions of existing stands of oak woodland habitat with connecting corridors at a tree density that is equal to the density of the stand (See Policy 7.4.4.5);
- Sensitive or important oak woodland habitats (See Policy 7.4.5.2 A);
- Oak woodland within or directly adjacent to an important biological resource corridor overlay or an ecological preserve overlay (See Policies 7.4.2.9 and 7.4.1.4);
- Listed or special status plant or animal species observed or expected to occur on the project site or in adjacent areas that may be directly or indirectly affected by the project (See Policy 7.4.1.5); or
- Removal of oak canopy that exceeds retention requirements of Policy 7.4.4.4.

For discretionary projects, the Site Assessment must also include a conclusion by the qualified professional as to whether the proposed oak tree canopy cover removal would have the potential to cause a significant effect on the environment.

If the Site Assessment concludes that the project would not impact any of the above, and the County concurs, and the retention/replacement requirements of Policy 7.4.4.4 are satisfied, the proposed oak tree canopy cover removal may be found consistent with Policy 7.4.4.4 without preparation of a Biological Resource Study and Important Habitat Mitigation Program. A Tree Survey, Preservation, and Replacement Plan, prepared according to County requirements, shall be required prior to issuance of a grading or building permit for the project. The Tree Survey, Preservation, and Replacement Plan will address long term preservation as well as protection of oak trees required to be retained or replaced during grading and construction.

If the Site Assessment, or the County, concludes that the proposed project would impact any of the above resources, and/or for discretionary projects could have the potential to cause a significant impact on the environment, then a full Biological Resources Study and Important Habitat Mitigation Program for the project must be provided to the County for review and approval. For ministerial projects, this must occur prior to issuance of a grading or building permit for the project. For discretionary projects, this must occur as part of the environmental review process. The recommendations of the plan must be fully implemented prior to final grading or building inspection for the project.

~~7~~6. Project Sites Within or Directly Adjacent to Important Biological Corridor Overlay or Ecological Preserve Overlay Areas: Any projects (ministerial or discretionary) proposing any oak canopy cover removal within or directly adjacent to the Important Biological Corridor Overlay Designation or Ecological Preserve Overlay Designation shall require review by the Planning Commission to ensure consistency with Policies 7.4.2.9 and 7.4.1.4 unless the subject property is also located within an Agricultural District Overlay or Agricultural Lands designation in which case it would not be subject to additional requirements per Policy 7.4.2.9. The Biological Resources Study and Important Habitat Mitigation Program must address the requirements of Policies 7.4.2.9 and 7.4.1.4, including, but not limited to the potential for higher oak canopy cover retention and mitigation standards than for projects located outside of the Important Biological Corridor Overlay and Ecological Preserve Overlay areas.

~~8~~7. Replacement Provisions – Where Policy 7.4.4.4 requires oak canopy cover replacement, the replacement shall be ~~at a 1:1 ratio using a like, kind, and species~~at a 1:1 ratio of canopy removed to canopy replaced as

defined in these Guidelines or as specified by a qualified professional approved by the County. The 1:1 replacement ratio can be determined by a simple projection of an aerial photograph justified to the same scale as the underlying parcel is sufficient to estimate the land area, measured in square feet, subject to oak canopy coverage (land area in square feet shall be converted to acreage). Replacement may be by one of the following methods, at the discretion of the Development Services Director (Director):

a. On-Site Replacement Tree Planting. The replacement requirement is calculated ~~based upon an inch for an inch replacement of the removed trees, measured at dbh or as otherwise specified by a qualified professional approved by the County~~as set forth in the tree replacement formula. Refer to the 1:1 Woodland Replacement definition. ~~The total of replacement trees should have a combined diameter of the tree(s) removed.~~ Replacement trees are to be planted on-site to the satisfaction of the Development Services Director. The size of the designated replacement area shall equal at a minimum the total area of the oak canopy cover proposed to be removed. An agreement to the satisfaction of County Counsel and the Director shall be required to ensure the long term maintenance and preservation of any on or off-site replacement trees planted. Maintenance and monitoring shall be required for a minimum of 10 years after planting. Any trees that do not survive during this period of time shall be replaced by the property owner.

b. On-Site Planting of Acorns. Under the direction of a qualified biologist, certified arborist and/or registered professional forester, acorns may be planted at a density designed to achieve oak canopy coverage which will equal the canopy coverage removed within no more than 15 years from the date of planting. ~~A~~The minimum replacement ratio ~~of 3 acorns for every tree removed shall be required unless otherwise specified by a qualified professional approved by the County~~for acorns is calculated as set forth in the tree replacement formula. Refer to the 1:1 Woodland Replacement definition. Recommendations from the qualified professional shall include a minimum of: site planting design; acorn planting ratios to ensure success; acorn collection areas or nurseries; propagation measures; acorn protection techniques; maintenance, and monitoring and reporting. The size of the designated replacement area shall equal at a minimum, the total area of the oak canopy cover that is proposed to be removed. An agreement to the satisfaction of County Counsel and the Director shall be required to ensure the long term maintenance and preservation of any on or off-site replacement acorns planted. Maintenance and monitoring shall be required for a minimum of ~~10~~ 15 years after planting. Any trees that do not survive during this period of time shall be replaced by the property owner.

c. On-Site Replacement of Canopy Area. Under the direction of a qualified biologist, certified arborist and/or registered professional forester, acorns, oak trees or a combination of both may be planted on-site ~~(using the 1:1 replacement as defined in these Guidelines or as otherwise specified by a qualified professional approved by the County)~~ The replacement requirement is calculated as set forth in the tree replacement formula. Refer to the 1:1 Woodland Replacement definition. Replacement plantings should be at a density designed to achieve oak woodland canopy coverage which will equal the canopy coverage removed within 15 years from date of planting or sooner.

Recommendations from the qualified professional shall include a minimum of: Site planting design; planting ratios to ensure success; any required acorn collection areas or nurseries; propagation measures; acorn and tree protection techniques; maintenance, monitoring and reporting requirements. The size of the designated replacement area shall equal at a minimum, the total area of the oak canopy cover that is proposed to be removed. An agreement to the satisfaction of County Counsel and the Director shall be required to ensure the long term maintenance and preservation of any replacement trees and/or acorns planted. Maintenance and monitoring shall be required for a minimum of 10 years after planting. Any trees that do not survive during this period of time shall be replaced by the property owner.

Replacement (and execution of related maintenance and monitoring agreements) shall be completed to the County's satisfaction prior to final grading or building inspection of the project.

d. Off-Site Replacement of Canopy Area. The applicant may be permitted to procure an off-site planting area for the replacement trees and/or planting of acorns, preferably in close proximity and/or in connection with any oak woodland contiguous to the project site or within or adjacent to an Important Biological Corridor or Ecological Preserve as designated in the General Plan, to implement the replacement planting. The size of the off-site replacement planting area shall equal at a minimum the total area of oak canopy cover proposed to be removed. Oaks planted shall have characteristics of the receiver site. Replacement shall occur at a 1:1 ratio as defined in these Guidelines or as otherwise specified by a qualified professional approved by the County. A Conservation Easement to the satisfaction of County Counsel and the Director shall be required to ensure the long term maintenance and preservation of any on or off-site replacement trees and/or acorns planted. 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. Maintenance and monitoring shall be required for a minimum of 10 years (15 years for acorns) after planting. Any trees that do not survive during this period of time shall be replaced by the property owner; or

e. Off-Site Conservation Easement to Protect Existing Oak Woodland in Lieu of Replacement. The applicant may obtain a Conservation Easement on property off-site with healthy oak woodland canopy area equivalent to 100% of the oak canopy area proposed to be removed. The conservation easement site should either be in close proximity and/or in connection with any oak woodland contiguous to the project site or within or adjacent to an Important Biological Corridor or Ecological Preserve as designated in the General Plan. 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.

~~9~~8. Ministerial Projects on Existing Legal Lots for which Previous Approvals or Determinations of Developable Area have been made by County Decision-Makers: Previously approved discretionary projects that have conditions of approval and/or mitigation measures specifying detailed oak tree protection and mitigation plans shall not be required to demonstrate further consistency with Policy 7.4.4.4. However, canopy that was required to be retained in prior approvals must continue to be retained, unless modified by the decision-making authority for the original protection plan. This provision does not apply to any development project whose approval has expired and a time extension is applied for.

Reasonable Use Provisions for Development on Existing Legal Lots

~~A. Reasonable Use Options Related to Replacement:~~

~~For existing legal lots, where strict compliance with the replacement requirements of Policy 7.4.4.4 could preclude reasonable use of the property or cause substantial inconsistencies with other General Plan policies protective of the environment, due to factors which are unique to~~

~~the proposed property, such as topographic constraints, configuration of the remaining area useable for development, access requirements, lot size, and/or other physical or environmental limitations, the Director of Development Services or the Planning Commission may allow either of the following options to satisfy the 1:1 on-site oak tree replacement requirement if necessary to ensure that development on the property consistent with what is typical and prevalent for the general area can occur (e.g. "reasonable use"):~~

~~i) Off-Site Replacement. The applicant may be permitted to procure an off-site planting area for the replacement trees and/or planting of acorns, preferably in close proximity and/or in connection with any oak woodland contiguous to the project site or within or adjacent to an Important Biological Corridor as designated in the General Plan, to implement the replacement planting. The size of the off-site replacement planting area shall equal at a minimum the total area of oak canopy cover proposed to be removed. A Conservation Easement to the satisfaction of County Counsel and the Director shall be required to ensure the long term maintenance and preservation of any on or off-site replacement trees and/or acorns planted. 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. Maintenance and monitoring shall be required for a minimum of 10 years after planting. Any trees that do not survive during this period of time shall be replaced by the property owner; or~~

~~ii) Off-Site Conservation Easement to Protect Existing Oak Woodland in Lieu of Replacement. The applicant may obtain a Conservation Easement on property off-site with healthy oak woodland canopy area equivalent to 100% of the oak canopy area proposed to be removed. The conservation easement site should either be in close proximity and/or in connection with any oak woodland contiguous to the project site or within or adjacent to an Important Biological Corridor as designated in the General Plan. 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.~~

~~B~~A. Reasonable Use Related to Oak Canopy Cover Retention:

For existing legal lots, where strict compliance with the oak canopy cover retention requirements of Policy 7.4.4.4 could preclude reasonable use of the property or cause substantial inconsistencies with other General Plan policies protective of the environment, due to factors which are unique to the proposed property, such as topographic constraints, configuration of the remaining area useable for development, access requirements, lot size, and/or other physical or environmental limitations, or conflict with the requirements of an approved Fire Safe Plan, the Planning Commission may grant relief to the retention requirements of Policy 7.4.4.4 for the project if the following findings are made pursuant to a noticed public hearing:

i. The applicant demonstrates that the project is designed to maximize use of parcel area unconstrained by oak trees, unless precluded by other significant constraints such as steep slopes, streams, creeks, wetlands, or other sensitive environmental resources.

ii. The proposed project is limited to development and site disturbance that is typical and prevalent for the general area surrounding the project site.

iii. Soil disturbance and tree removal is minimized through the incorporation of some or all of the following measures into the project design:

a. Stepped foundations are used on sloping areas rather than graded pads.
b. Depth of excavation and/or fill outside of the building footprint is limited to no more than five feet measured vertically from the natural ground surface, except for grading necessary to install retaining walls designed to reduce the total area of tree canopy that will be removed and/or damaged.
c. Structures and the configuration of the area of disturbance are designed to parallel the natural topographic contours to the greatest extent feasible.
d. Patio decks are included in the design of dwellings to minimize the need for graded yard areas.
e. Design techniques such as clustering of buildings are proposed to take advantage of the portions of the property which are least constrained by oaks.
f. The project is designed to maximize consistency with all applicable policies of the El Dorado County General Plan. *It is recognized that more than one policy may have to be*

considered in the determination of reasonable use of a particular parcel.

iv. If the project site is within or directly adjacent to an Important Biological Corridor Overlay or Ecological Preserve~~,~~ , a Biological Resources Study and Important Habitat Mitigation Program have been prepared by a qualified professional and approved by the County and will be fully implemented by the applicant.

Replacement of any oak tree canopy area allowed to be removed by the Planning Commission in excess of the retention standards in the General Plan shall be required. A ~~a~~t a minimum, the replacement shall be completed in accordance with the tree replacement formula. Refer to the 1:1 Woodland Replacement definition. A ~~2~~2:1~~oak tree density~~ ratio ~~ratioat a density of either 200 oak trees per acre or 3 acorns per tree removed (~~or as otherwise specified by a qualified professional approved by the County~~)~~, pursuant to the options and methods specified in these Guidelines, may be applied. Further, for discretionary projects, any effects on biological resources will be analyzed in the environmental document and appropriate additional mitigation proposed as required by the California Environmental Quality Act, California Oak Woodlands Conservation Law and other applicable statutes.

~~C~~B. Reasonable Use Related to Oak Corridor Retention:

In order to ensure that reasonable use of the property is provided, an applicant may request the Planning Commission to provide relief from the strict application of this corridor retention requirement (Policy 7.4.4.5) in the same manner as described above. In addition, for discretionary projects, any effects on biological resources will be analyzed in the environmental document and appropriate mitigation proposed as required by the California Environmental Quality Act, California Oak Woodlands Conservation Law and other applicable statutes.

OAK/CANOPY SITE ASSESSMENT FORM

El Dorado County

OAK/CANOPY SITE ASSESSMENT FORM

Qualified Professional & Contact Information: *(attach qualifications)*	
Property Owner's Name/APN(s):	
Address:	
General Plan Designation:	
Zoning:	
Project Description: *(attach site photos*)	

Would the project, directly or indirectly, have the potential to cause any impact, conflict with, or disturbance to:	**YES**	**NO**
a) Individual landmark or heritage trees (of any species) subject to review under General Plan Policy 7.4.5.2?		
c) Oak woodland corridor continuity (General Plan Policy 7.4.4.5)?		
d) Sensitive or important oak woodland habitat as defined in the Guidelines?		
e) Movement of Wildlife and/or Any Wildlife Migration Corridor?		
f) Any Candidate, Listed or Special Status Plant or Animal Species observed or expected to occur on or adjacent to the project site?		
g) Is the affected area of oak canopy within or directly adjacent to an Important Biological Corridor or Ecological Preserve overlay?		
h) Does the removal of oak canopy comply with the retention requirements of Policy 7.4.4.4?		
i) Was project subject to prior County approval? (If yes, provide Tentative Map # and environmental documents if available)		
j) For Discretionary Projects, would the project have the potential to cause a significant environmental impact on biological resources?		

I affirm that all of the information contained in this document is true and correct to the best of my knowledge and I acknowledge and agree that any material misinformation in this document can result in the denial or revocation of any permits or County approvals for this project.

Qualified Professional:_____ **Date:** _____

Applicant/Owner:_____ **Date:**_____

Required Attachments: 1) Qualified Professional Qualifications; 2) Site Photos; 3) Required Tree Survey, Preservation, and Replacement Plan *or* Biological Resources Study and Important Habitat Mitigation Program (see Interim Interpretive Guidelines for El Dorado County Policy 7.4.4.4 Option A)

BIOLOGICAL RESOURCES STUDY

&

IMPORTANT HABITAT MITIGATION PROGRAM

INTERIM GUIDELINES

TABLE OF CONTENTS

1.0 Introduction

The El Dorado County General Plan (2004) requires a Biological Resources Study and an Important Habitat Mitigation Program for development projects meeting certain criteria. These guidelines are intended to provide consistency in guiding the content of biological reports and in formatting. The authoring qualified professional (certified arborist, qualified wildlife biologist, or registered professional forester) should use his or her professional judgment in the detail of the report. Each survey will differ, but all points listed below should be included.

All reports should include a cover page with the name of the project, name of the owner/applicant, the parcel number, the permit number, the date of the report, and a signature block with the principal professional's contact information. All reports should include a table of contents.

The General Plan requires different types of reports under different policies. Section 1.1 outlines content requirements.

1.1 Reports Required Under Various Policies

1.1.1 Site Assessment Form

The Site Assessment Form is not required by any Policy under the General Plan; however, it allows applicants and their qualified professionals to provide County staff with basic information to make a determination whether a full Biological Resources Study and Important Habitat Mitigation Program will be required. Applicants/property owners and their qualified professional are strongly encouraged to coordinate the preparation of the Site Assessment Form and/or Biological Resources Study and Important Habitat Mitigation Program early in the process to avoid procedural duplication or delay.

1.1.2 Tree Survey, Preservation, and Replacement Plan

A Tree Survey, Preservation, and Replacement Plan is required whenever oak tree canopy is proposed to be removed for ministerial (except for projects eligible to use Streamlined Replacement Procedures as specified in the Guidelines) and for discretionary projects, to demonstrate compliance with the retention and replacement requirements of Policy 7.4.4.4 as well as Policies 7.4.5.1, 7.4.4.5, and 7.4.5.2 (B). It is also required as part of any Important Habitat Mitigation Program as discussed below. Policy 7.4.5.1 requires the Tree Survey, Preservation, and Replacement Plan to be filed with the County prior to issuance of a grading permit for discretionary permits on all high-density residential, multi-family residential, commercial, and industrial projects. The Tree Survey, Preservation, and Replacement Plan should also address Policy 7.4.4.5, Oak Corridor Continuity Retention. The Tree Survey, Preservation, and Replacement Plan needs to cover any off-site areas proposed to be used for replacement or preservation. Policy 7.4.5.2 (B) (Tree Removal Associated with

Discretionary Project) requires information that is contained in the Tree Survey, Preservation, and Replacement Plan. A qualified professional shall prepare the report. The Tree Survey, Preservation, and Replacement Plan report requirements are detailed in Section 2.2.2 below.

1.1.3 Biological Resources Study and Important Habitat Mitigation Program

The Biological Resources Study and Important Habitat Mitigation Program is the full report outlined in these guidelines. It is required by the following policies:

- Policy 7.4.4.4 Option A and Option B (Option B is not available until adoption of an Oak Woodland Management Plan)
- Policy 7.4.5.2 (if "sensitive" habitat is affected)

This report should also address Policy 7.4.4.5, Oak Corridor Continuity Retention. The report shall be prepared by a qualified professional.

2.0 Report Requirement Guidelines

The Report consists of two parts: the Biological Resources Study, and the Important Habitat Mitigation Program.

2.1 Biological Resources Study

Biological reports and field surveys must include the information listed in Interpretive Guidelines for Policy ~~7.3.3.4 "~~7.3.3.4 "Biology Report Requirements." In addition, when oak woodland is affected, the following information must be included with the report:

2.1.1 Oak Woodland Habitat Resources

This section is to specifically discuss oak woodland habitat resources and relate how the project will potentially alter oak woodland habitat. This section will also discuss specific oak trees affected by the project.

2.1.1.1 Summary of Recommendations

Briefly describe the oak trees on site by species, location on the site, diameter at breast height (dbh), canopy coverage (and relationship of project to meeting the General Plan requirements), habitat corridor continuity, the trees' overall condition, and any hazards observed. Reference the California Wildlife Habitat Relationships System (CWHR) and VegCAMP for habitat type.

2.1.1.2 Oak Tree Canopy

Describe the percentage of tree canopy that contains oak species, and whether the percentage of oak species meets the threshold of 10%+ to define oak woodlands. Identify whether the oak canopy meets the minimum threshold to apply Policy 7.4.4.4 as follows:

- Parcels that are over an acre and have at least 1 percent total oak canopy cover; or
- Parcels that are less than an acre and have at least 10 percent total oak canopy cover.

Calculate the site's overall pre-project oak canopy cover percentage. Do not include dying, diseased, or declining trees that are identified in the tree inventory as such in the canopy calculations. Discuss the post-project oak canopy cover percentage, and how it complies with Policy 7.4.4.4 of the General Plan. ~~-~~Prepare a table that displays pre- and post-project tree canopy cover percentage per ~~per~~ parcel (see example in Table 1-1).

Specifically discuss oak tree corridor continuity/habitat connectivity as required under Policy 7.4.4.5.

Table 1-1 **Oak Canopy Coverage and Number of Trees**		
Oak Woodland Species	**Oak Canopy Coverage Percentage/Number of Trees**	
	Pre-Project (per parcel)	**Post-Project (per parcel)**
Blue oak	27%/ 59	17%/ 54
Interior live oak	10%/ 6	9%/ 1
Oak Canopy Cover Per Parcel	**37%/ 65**	**26%/ 55**

~~*2.1.1.3 Tree Inventory*~~

~~Discuss inventory methods used. Summarize the inventory of trees on the project site. Summarize tree vigor and condition. Discuss trees to be removed and include a justification for removal. All oak, heritage or landmark trees proposed for removal shall be identified by the applicant for field inspection by means of flagging, staking, paint spotting or other means readily visible but not detrimental to a healthy tree.~~

~~Include a complete tree inventory as an appendix. Tree inventory tables should include at a minimum the following information: tree number, species, dbh, dripline measurement, condition rating (excellent through poor), comments, and recommendations. The contents of the inventory shall include the following information:~~

~~1.Botanical and common name of tree(s) by tree number (each tree identified by a metal tag or other identification);~~

~~2.Location of tree(s) by tree number;~~

~~3.Diameter at Breast Height (DBH) measurement by tree number, identifying whether single or multi-trunked trees;~~

~~4.Protected zone radius by tree number (measure longest radius); and~~

~~5.Condition by tree number based upon the following tree rating system:~~
~~(i)Excellent~~
~~(ii)Good~~
~~(iii)Fair to good~~
~~(iv)Fair~~
~~(v)Fair to poor~~
~~(vi)Poor.~~

~~Tree ratings shall be based on:~~

~~a)The condition and environment of the tree's root crown;~~
~~b)The condition of the trunk, including decay, injury, callusing, or presence of fungus sporophore;~~
~~c)The condition of the limbs, including strength of crotches, amount of dead wood, hollow areas, and whether there is excessive weight borne by them;~~
~~d)The condition and growth rate history of the twigs including pest damage and diseases;~~
~~e)The leaf appearance, including abnormal size and density as well as pest and disease damage; and~~
~~f)The protected zone environment, including evidence of grade changes and presence of watercourses or ponding.~~

~~Using an averaging of the above factors together with the qualified professional's best judgment, the tree shall then be described using the above rating categories. Based upon the conditions and findings, recommendations should be made that logically follow the report conditions. The report should also include information regarding the tree's life expectancy under existing and planned for conditions.~~

~~Specifically discuss oak tree corridor continuity as required under Policy 7.4.4.5. Prepare a stand table to illustrate the number of oak trees per parcel pre- and post-project by dbh group, as in Table 1-2.~~

~~**Table 1-2**~~
~~**Stands Pre- and Post-Project**~~

~~**Woodland Species by DBH Group**~~	~~**Pre-Project Trees per Parcel**~~	~~**Post-Project Trees per Parcel**~~
~~Blue oak (1-6")~~	~~10~~	~~8~~
~~Blue oak (>6-12")~~	~~5~~	~~4~~
~~Blue oak (>12-18")~~	~~1~~	~~1~~
~~Blue oak (>18-24")~~	~~0~~	~~0~~
~~Blue oak (>24")~~	~~0~~	~~0~~
~~Interior live oak (1-6")~~	~~2~~	~~1~~
~~Interior live oak (>6-12")~~	~~3~~	~~3~~
~~Interior live oak (>12-18")~~	~~7~~	~~5~~
~~Interior live oak (>18-24")~~	~~2~~	~~2~~
~~Interior live oak (>24")~~	~~1~~	~~1~~
~~California buckeye (1-6")~~	~~1~~	~~1~~
~~California buckeye (>6-12")~~	~~6~~	~~4~~
~~California buckeye (>12-18")~~	~~5~~	~~2~~
~~California buckeye (>18-24")~~	~~3~~	~~2~~

~~California buckeye (>24")~~	~~0~~	~~0~~
~~**Trees/Parcel**~~	~~**46**~~	~~**34**~~

2.1.1.43 Potential Impact Assessment

Prepare an assessment of all potential direct and indirect impacts including a discussion of the quality of the habitat considering: its ability to support species diversity, its ability to be self-sustaining (in the context of the surrounding area, not just the project boundaries), how common or rare it is, how good a representative it is (plant community), the degree of previous disturbance, and other history of the site if applicable. For discretionary projects, all impact analysis shall include a conclusion as to the significance of the project impacts pursuant to CEQA. In addition, this section shall contain a discussion of the following:

A. An evaluation of the physical and biological relationship of the project property to surrounding or contiguous habitats. Discuss if the proposed project will disrupt the integrity or continuity of an important habitat (i.e., disruption of a wildlife corridor and/or an extensive riparian woodland, etc.);
B. Indicate the percentage of plant communities and habitats to be removed or modified by the proposed development or reasonably anticipated to be removed. Discuss likely subsequent impacts for phased and staged development, even if they are not a part of the project;
C. Quantify the anticipated loss of sensitive plant and animal habitat, populations, or individuals. Define where possible, the local and regional significance of this loss;
D. Describe proposed fuel treatment measures to provide defensible space to the planned structures;
E. Discuss and evaluate indirect impacts anticipated on and off site from project implementation, including cumulative impacts; and
F. Make a determination of significance in regards to potential impacts on sensitive or important oak woodlands affected by the project. The following evaluation criteria (from *A Planner's Guide to Oak Woodlands*) can be considered, but is not limited to:

Will the project do the following?

a) Affect density, canopy, health, stand-age structure and understory vegetation for sensitive or important oak woodland?
b) Affect the potential for regeneration of sensitive or important oak habitat?

c) Eliminate oak trees with important biological characteristics (snags, obvious nest trees, etc.)?
d) Disturb or eliminate any designated landmark or heritage trees or otherwise alter archaeological or other historical values of the landscape?
e) Change the habitat distribution patterns of the area in a manner that would lead to fragmentation of any sensitive habitat areas?
f) Impact adjacent habitats for sensitive or endangered species?
g) Impact a critical corridor for sensitive or listed wildlife or plant species or community?
h) Impact an existing critical buffer between development and sensitive or important oak woodlands?
i) Result in a change in management that increases fire hazard in adjacent sensitive or important woodlands?
j) Result in downstream or downslope sedimentation, erosion, or decreases in water qualities that are detrimental to vegetation, wildlife, recreation, visual resources, or agricultural operations?
k) Impact oak woodlands affected by the project that are critical to the maintenance of sensitive or important botanical, wildlife, recreational, or viewshed values?
l) Decrease biological diversity by eliminating important or sensitive oak habitats that are already limited in the region?
m) Impact sensitive or important oak stands with distinctive attributes (e.g., a site with good regeneration; a density class that is not present at many other sites; a stand with a high degree of biological diversity)?
n) Increase fragmentation of important or sensitive oak woodland habitat?
o) Reduce or isolate important or sensitive oak woodland habitat corridors?
p) Significantly impact sensitive or important habitat within or directly adjacent to a designated Important Biological Corridor Overlay or Ecological Preserve?

For discretionary projects, the impact may be considered significant under CEQA unless adequate mitigation is proposed in addition to compliance with the replacement requirements of Policy 7.4.4.4 if the answer to any of the above questions is affirmative. For ministerial projects, adequate mitigation and/or incorporation of Best Management Practices need to be incorporated into the project as discussed below, in addition to the ~~1:1~~ replacement (as defined in the Interim Interpretive Guidelines for Policy 7.4.4.4 Option A) required by Policy 7.4.4.4, if the answer to any of the above questions is affirmative.

2.2 Important Habitat Mitigation Program Guidelines

The mitigation program must include the following:

2.2.1 Recommended Mitigation

Recommend mitigation measures and/or Best Management Practices to avoid or minimize impacts identified in the Biological Resources Study to the extent feasible and to provide sufficient protection to the resource(s) as called for by the General Plan, and based on CEQA guidelines.

Mitigation must be determined on a site specific basis and can include a range of possibilities, including but not limited to:

A) Avoidance;
B) Open space/conservation easements which, when feasible, work toward regional protection of the resources, including: combining open space easements with adjacent ownerships, maintenance of open space corridors; attempting to preserve as much contiguous habitat as possible consistent with County General Plan policy;
C) Redesign;
D) Clustering;
E) Providing a vegetated buffer of an appropriate width to provide sufficient protection to the resource as required by the General Plan. The type of vegetation to be maintained in this buffer shall be suitable to enhance habitat value, improve bank stability and reduce the likelihood of erosion and sedimentation of the adjoining riparian resource;
F) Retaining animal dispersal corridors, including the under-story of any riparian vegetation;
G) Planning construction activity to avoid critical time periods (nesting, breeding) for fish and other wildlife species;
H) Careful siting of some projects such as bridges, roads and pipelines to limit the disturbance area to previously disturbed locations where feasible;
I) Restoration or enhancement of woodland habitat to enhance the ecological value of the woodland resource;
J) Best Management Practices for reducing impacts from grading/development in environmentally sensitive areas;
K) Additional oak tree canopy retention and oak woodland habitat preservation or replacement on-site and/or off-site;
L) Retaining contiguous stands of oak woodland habitats by retaining corridors betweens stands.

M) For projects impacting areas within or directly adjacent to designated Important Biological Corridor Overlay or Ecological Preserve areas, refer to General Plan Policy 7.4.2.9 for additional mitigation measures.

The adequacy of mitigation shall be reviewed by the County decision makers as part of project review. The County retains the discretion to have any proposed mitigation reviewed by a third party qualified professional at the applicant's expense.

2.2.2 Tree Survey, Preservation, and Replacement Plan

The Plan must detail specific requirements necessary to protect designated trees (identified through a tree survey) during and after construction. Include general protection techniques, as well as protection specification by phase for the pre-construction/demolition, construction, and post-construction phases.

~~2~~2.2.2.1 Safeguarding Trees During Construction.

For the purposes of safeguarding any protected oak, heritage, and landmark trees during construction, the following conditions shall apply:

1. Prior to issuance of a grading or building permit, all oak, heritage, and landmark trees in a construction area shall be inventoried by the owner of such site or by the contractor as to size and location on the site. Such inventory shall be submitted to Planning Services, and field checked by County staff or contract assistance (e.g., a qualified professional) at the applicant's cost to verify the number, size and location of the trees and the adequacy of protective fencing.

2. During grading of any property on which there are oak trees of six (6) inches or greater DBH, the following standards of oversight shall apply:

a. If grading, cutting or filling is approved for areas within the tree root zone of oaks or within a five (5) foot distance of the tree root zone of an oak to be preserved, the work shall be supervised by a Certified Arborist or other qualified professional. The Arborist or professional shall be responsible for maintaining protective fencing and insuring the oak trees are not damaged by grading related activities. The Arborist or professional shall be paid for by the applicant / developer of the property. The County reserves the right to hire an independent Certified Arborist or qualified professional if it is deemed necessary by the Director of Development Services (or his/her designee) to provide adequate supervision of grading.

b. Grading, cutting and filling on property that has oak trees but which is planned to occur at least five (5) feet beyond the tree root zone of any oak trees of six (6) inches or greater DBH, but within twenty (20) feet of the oak trees,

shall not occur unless there is a monitor present to insure that grading occurs in accordance with approved plans and without encroachment into areas within five (5) feet of the tree root zone of any oak tree(s) of six (6) inches or greater DBH. The monitor shall be paid for by the applicant / developer of the property and shall be present during all grading related activities. The County reserves the right to hire an independent monitor if it is deemed necessary by the Director of Development Services (or his/her designee) to provide adequate supervision of grading.

3. Damage to any protected tree during construction shall be immediately reported Planning Services. The property owner shall be responsible for correcting any damage to protected trees on the property in a manner specified by a Certified Arborist or qualified professional hired by the County at the applicant's cost.

4. Oil, gasoline, chemicals and other construction materials or equipment which might be harmful to trees shall not be stored within the tree root zone.

5. Drains shall be installed according to County specifications so as to avoid harm to the oak trees due to excess watering.

6. Wires, signs and other similar items shall not be attached to the protected trees.

7. The existing ground surface within the tree root zone of any protected tree shall not be cut, filled, compacted, or pared except as permitted by this ordinance. Anticipated exceptions include making allowances to construct planned public improvements such as roads and sidewalks when it is not feasible to design the public improvements in a manner that will avoid encroachment into the tree root zone.

8. No paint thinner, paint, plaster or other liquid or solid excess or waste construction materials or waste water shall be dumped on the ground or into any grate between the tree root zone and the base of the protected trees, or uphill from any protected tree where such substance might reach the roots through a leaching process.

9. A minimum of a 4' tall temporary tree protection fence, of orange standard fencing or of a type and design subject to the approval of Planning Services or a designated representative shall be installed at the outermost edge of the tree root zone to prevent compaction and injury to a tree's surface roots. Once approved, the fences must remain in place throughout the entire construction period and may not be removed without obtaining written authorization from Planning Services.

10. Wherever cuts are made in the ground near the roots of any protected tree, appropriate measures shall be taken to prevent exposed soil from drying out. All cuts within the tree root zone are to be made with hand tools (no backhoes or graders).

11. All root pruning is to be done by hand, or by air knives or water jets under the direction of a Certified Arborist or qualified professional.

12. No person shall store building material or park vehicles or equipment within the tree root zone of any protected tree during development, unless specifically authorized by the County and under the direction of a Certified Arborist or qualified professional.

13. No person shall drive metal stakes into tree trunks or stems or the tree root zone for any purpose other than to support a protected tree.

14. No person shall have an open flame within fifteen feet of the foliar canopy or trunk of a protected tree.

15. Except unless specifically approved by a Certified Arborist, no trenching whatsoever shall be allowed within the tree root zone of protected trees. If it is absolutely necessary to install underground utilities with the tree root zone(s) of a protected tree, the trench shall be either bored or drilled unless the Certified Arborist or qualified professional determines that the trenching can be accomplished without endangering the protected tree.

16. Paving within the tree root zone of protected trees shall be stringently minimized. When it is absolutely necessary, porous material should be used.

If Planning Services has reason to believe that construction or development activities may endanger a protected tree, Planning Services may seek professional consultation, at the expense of the applicant seeking to undertake construction or development of the property, to recommend measures necessary to safeguard the tree(s).

2.2.2.2 Safeguarding Trees After Construction.

Oak, heritage, and landmark trees required to be kept on a building site and oak trees required to be planted as a condition of construction shall be maintained after completion of construction according to County requirements for the purpose of maintaining or furthering the health of such trees.

Landscaping beneath oak, heritage, and landmark trees may include non-living plant materials such as wood chips, or live landscaping such as drought resistant plants. Solid cobbles, boulders, and gravel are not recommended as resultant heat radiation harms the tree. Planning Services may require that drought

resistant landscaping be installed as an alternative to irrigated landscaping where appropriate. All landscaping shall be kept at least four feet away from the trunk of the protected tree. All landscaping shall be subject to the approval of the Director of Development Services.

2.2.2.3 Revegetation and Restoration Plan

If mitigation includes revegetation and/or restoration, discuss the following as applicable:

- Site preparation:
  A) Discuss resource protection work such as staking, flagging, and fencing; and
  B) Discuss other site needs, such as weeding/clearing, topsoil needs, and grading.

- Irrigation:
  A) Discuss water source and supply, including whether installation is temporary or permanent, and whether watering will be manual or automatic.

- Plant Installation:
  A) List species recommended including whether plants should be container plants, seed/acorns, and detail quantities and sizes;
  B) Include planting diagram to show planting design;
  C) Describe planting procedures such as acorn collection (and vicinity where acorns should be collected from, or designate an appropriate nursery for purchase), acorn planting guidelines, caging, seed application methods, and special handling;
  D) Discuss timing of planting; and
  E) Discuss irrigation needs including frequency and duration.

- Plant Establishment Period:
  A) Discuss oversight needed during the period of establishment for the plants, and the expected timeframe;
  B) Discuss any horticultural treatments that should be utilized, such as mulching, pruning, and disease control;
  C) Discuss erosion control;
  D) Discuss replacement planting if original specimens die or fail to sprout;
  E) Discuss site protection;
  F) Discuss pest management; and
  G) Discuss need to maintain irrigation system and length of time irrigation system will likely be needed for plant establishment.

2.2.3 Monitoring and Reporting Plan

Describe methods for monitoring and evaluating the effectiveness of the mitigation measures during and after disturbance/construction. Monitoring and reporting shall require reports to the County not less than once each year for a period of ten years except as specified below.

2.2.3.1 Existing Lot (Ministerial) Reporting Requirements

Applicants with existing lots, using on-site replacement mitigation, may choose to use a simplified monitoring and reporting process, detailed below. ~~In order to qualify for the simplified monitoring and reporting process, an increased replacement planting ratio as recommended by the project arborist/, forester or biologist shall be implemented.~~ The replacement plantings shall be nurtured using techniques consistent with the most current version of the University of California publication "How to Grow California Oaks." Replanting may be supervised by a qualified professional (arborist, forester, or biologist) or by a specialist such as a master gardener or landscape architect. Applicants with existing lots utilizing off-site replacement mitigation are required to use the Discretionary Project Reporting Requirements detailed in section 2.2.3.2.

Simplified Monitoring and Reporting Process for Existing Lots Utilizing On-Site Replacement Mitigation:

A) The monitoring period shall be ten years (15 years for acorns);
B) The applicant shall self-monitor their replantings annually;
C) The applicant shall report, in writing, to the County at year ten on the condition of the trees and number of failures; and
D) If the failure rate of the replacement planting exceeds ~~25~~ 10 percent of the replanted trees, then replanting of those trees that have not survived is required at the conclusion of the 10 year (or 15 years for acorns) monitoring period. Evidence of replanting shall be provided to the County. No further monitoring shall then be required.
E) The monitoring requirements shall be placed into a standard "Notice of Restriction" or similar County approved document and recorded on the title of the subject property. Once the 10 year (or 15 year) monitoring period has been successfully completed, the County shall record a release of the Notice of Restriction.

2.2.3.2 Discretionary Project Reporting Requirements

The annual monitoring report will include:

A) A description of the lands included in the mitigation program (including location and size);

B) A summary of the evaluation criteria established at the time the mitigation program was approved;
C) An evaluation of the mitigation program based on those criteria;
D) Photo documentation; and
E) Recommendations for action during the following years as specified in the environmental document for the project (e.g. reporting requirements, replacement criteria for failed replantings, etc.)
F) The provisions of the monitoring program shall be placed into a standard "Notice of Restriction" document and recorded on the title of the subject property. Once the 10 year (or 15 years for acorns) monitoring period has been successfully completed, the County shall record a release of the Notice of Restriction.

2.2.4 Funding Mechanism

Projects involving large scale on-site or off-site replacement or preservation areas shall address the funding mechanisms that will be put in place to ensure that monitoring, maintenance and replacement of failed plantings occurs during the 10 year (or 15 years for acorns) required monitoring period. Large scale areas are considered to be replacement or preservation areas of 5 acres or more. Discuss performance bonds or other funding mechanisms which will ensure success of impact mitigation. Identify the financially responsible party, including name, address, telephone number, and email (if available).

2.3 Findings and Recommendations

Discuss the qualified professional's proposed findings and recommendation as to whether the project, with recommended mitigation and/or incorporation of Best Management Practices, would avoid or minimize impacts "sufficient to protect" the affected woodland habitat resource as required by the El Dorado County General Plan and CEQA.

2.4 Certification

The report must include the certification statement shown below:

> I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this biological survey (or Arborist Report), and that the facts, statements, and information presented herein are true and correct to the best of my knowledge and belief.
>
> SIGNED: _____ DATED: _____

2.5 Report Authors

Provide the name(s) of the field investigator(s).

2.6 References

List all references cited, persons contacted, herbaria and museums visited, and the location of any voucher specimens. Copies of any Natural Diversity Data Base Field Survey Forms sent to Sacramento and Natural Community Field Survey Forms, for sensitive species or communities found on the project site shall also be provided in an appendix.

2.7 Appendices

Appendices should include a minimum of the following:

- Glossary of Terms
- Tree Inventory
- CNDDB Forms Submitted (if applicable)

3.0 Digital File Specifications

Should a digital file of the mapped data be submitted, one of the following formats is preferred: 1) personal geodatabase; 2) Arc/Info coverages packaged as a .zip file including all associated Info files or in .e00 format; and 3) in shapefile format packaged as a .zip file. 4) AutoCAD 2000 or newer versions of .dwg or .dxf files. The personal geodatabase should be compacted and then zipped. Files can be e-mailed, provided on CD, DVD, or flash drives. All electronically submitted files must be registered in California State Plane Zone 2, NAD 83, Feet. These file preferences apply to any GIS data submitted as part of a project's requirements.

4.0 Author Qualifications

Qualified professionals include certified arborists, Registered Professional Foresters (RPFs), and qualified wildlife biologists.

A certified arborist is a person certified by the International Society of Arboriculture (I.S.A.) or other recognized professional organization of arborists that provides professional advice and licensed professionals to do physical work on trees in the County.

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 timber (California Licensed Foresters Association).

Licensed engineers and land surveyors are licensed by the California Board for Professional Engineers and Land Surveyors.

A qualified wildlife biologist must meet the following qualifications as determined by the Director of Development Services:

1. A BA/BS or advanced degree in biological sciences or other degree specializing in the natural sciences.

2. Professional or academic experience as a biological field investigator, with a background in field sampling design and field methods.

3. Taxonomic experience and knowledge of plant and animal ecology.

4. Familiarity with plants and animals of the area, including the species of concern.

5. Familiarity with the appropriate county, state and federal policies and protocols related to special status species and biological surveys.

Prior to accepting a report for review, the County must determine whether the party preparing the biology report meets the above requirements. The County of El Dorado maintains the right to submit any consultant prepared study for peer review by either a staff biologist or a third outside consulting biologist under contract to the County prior to making any final determinations concerning any project. The cost of such review will be reimbursed by the applicant.

5.0 Resources

ACOE Wetlands Delineation:
http://www.usace.army.mil/inet/functions/cw/cecwo/reg/techbio.htm

http://ceres.ca.gov/wetlands/introduction/defining_wetlands.html

California Licensed Foresters Association:
http://www.clfa.org/registered_professional.htm

California Board for Professional Engineers and Land Surveyors:
http://www.dca.ca.gov/pels/

California Natural Community Field Survey Form (from California Natural Diversity Database at DFG) (fill online, or to download a copy to your computer for use offline, follow the link, then right click on the form link and choose "Save Target As....")
http://www.dfg.ca.gov/whdab/pdfs/natcom.pdf

CNPS Sawyer/Keeler-Wolf 1995:
http://www.cnps.org/programs/vegetation/vegmanual.htm

CWHR: Mayer/Laudenslayer used for EDC DEIR:
http://www.dfg.ca.gov/whdab/html/wildlife_habitats.html

CWHR Wildlife Habitats Crosswalked with CNPS Vegetation Classification:
http://www.dfg.ca.gov/whdab/cwhr/pdfs/XCNPS.pdf

El Dorado County General Plan DEIR:
http://www.co.el-dorado.ca.us/Planning/GeneralPlanDraftEIR.htm

El Dorado County General Plan:
http://www.co.el-dorado.ca.us/Planning/GeneralPlanAdopted.html

McCreary DD. 2001. *Regenerating rangeland oaks in California*. Berkeley (CA): University of California, Agriculture and Natural Resources. Communication Services Publication #21601. 62 p.

University of California Agriculture and Natural Resources. 2005. *A Planner's Guide for Oak Woodlands, Second Edition.* Publication 3491. Edited by Giusti etal. Available at: http://anrcatalog.ucdavis.edu

Standiford, Richard and Douglas McCreary and William Frost. 2002. *Modeling the Effectiveness of Tree Planting to Mitigate Habitat Loss in Blue Oak Woodlands.* USDA Forest Service Gen. Tech. Rep. PSW-GTR-184. Available at: http://danr.ucop.edu/ihrmp/proceed/standiford.pdf

VegCAMP:
http://www.dfg.ca.gov/whdab/html/vegcamp.html

VegCAMP Natural Communities List:
http://www.dfg.ca.gov/whdab/pdfs/natcomlist.pdf

6.0 ADMINISTRATION

The above guidelines are interim standards utilized by the Development Services Department of El Dorado County to provide for consistent review of projects for conformance with Policies 7.4.4.4, 7.4.4.5, 7.4.5.1, and 7.4.5.2 of the General Plan pending adoption of permanent regulations. Any requests to reduce the interim mitigation and replacement of woodland habitat and native, landmark, and heritage trees for development beyond the mitigation required in these Guidelines will require Planning Commission review at a public hearing. Any determinations made by the Planning Commission are appealable to the Board of Supervisors.

7.0 ATTACHMENTS

Attachment 1 – El Dorado County Vegetation/Wildlife Habitat Crosswalk Summary Table
Attachment 2 – El Dorado County Major Habitat Types
Attachment 3 – El Dorado County Vegetation Bioclassification
Attachment 4 – El Dorado County Applicable Policies