



BIOLOGICAL RESOURCES STUDY

AND

**IMPORTANT HABITAT MITIGATION
PROGRAM**

***INTERIM
GUIDELINES***

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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 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 “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.

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 percent plus 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 parcel (as in Table 1-1).

Table 1-1 Oak Canopy Coverage		
Oak Woodland Species	Oak Canopy Coverage Percentage	
	Pre-Project (per parcel)	Post-Project (per parcel)
Blue oak	27%	17%
Interior live oak	10%	9%
Oak Canopy Cover Per Parcel	37%	26%

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

2.1.1.4 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. Discuss and evaluate indirect impacts anticipated on and off site from project implementation, including cumulative impacts;
- E. 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 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 between 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 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.

2.2.2.1 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 within 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. 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:

- A) The monitoring period shall be ten years;
- 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 percent of the replanted trees, then replanting of those trees that have not survived is required at the conclusion of the 10 year 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" document and recorded on the title of the subject property. Once the 10 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;
- 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 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 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
- CNDDDB 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>

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

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