

## Summary and Overview of Plan

This Oak Woodland Management Plan (OWMP) complies with 2004 General Plan Measure CO-P. Measure CO-P requires that the County develop and adopt an Oak Resources Management Plan. The OWMP is the first component (oak woodland portion) of the Integrated Natural Resources Management Plan (INRMP) required by Measure CO-M and Policy 7.4.2.8.

The loss of oak woodland in El Dorado County was a key issue of the 2004 General Plan Environmental Impact Report (EIR). Oak woodland habitat removal and fragmentation from development, and a reported low rate of blue oak regeneration, are primary concerns. Measure CO-P and Policies 7.4.4.4, 7.4.4.5, and 7.4.5.2 require mitigation for the loss of oak woodland and oak trees. This plan identifies specific oak woodland conservation areas and methods for the County to implement an oak woodland ordinance that fulfills the requirements of the 2004 General Plan and EIR.

The OWMP has three purposes. First, it complies with Measure CO-P. Second, once the OWMP is adopted, the County will have a conservation fee option to applicants for mitigating impacts to oak woodlands (Policy 7.4.4.4, Option B). And third, the OWMP will establish a plan that landowners, the County, and others can use to seek grants (including cost-sharing options) from State/Federal programs (e.g., California Oak Woodland Conservation Program) for oak woodland conservation in El Dorado County.

***The OWMP is a ‘landscape level’ planning tool for long-term conservation of oak woodland resources in El Dorado County.***

The County began preparing the OWMP in September 2006. Public workshops and hearings were held throughout the process with the Planning Commission, Agricultural Commission, and Board of Supervisors to discuss the mapping and Option B fee elements of the OWMP. A County Staff Technical Advisory Committee (TAC) guided the drafting of the OWMP through early 2007. Through this process, many issues were raised regarding the mapping, Option B fee, and other elements of the OWMP. The County is now seeking public comment on how best to finalize and implement the plan.

The OWMP is a ‘landscape level’ planning tool for long-term conservation of oak woodland resources in El Dorado County. The OWMP identifies Priority Conservation Areas (PCAs) where oak woodlands would be acquired through conservation easements or fee title purchased from willing landowners. The OWMP also identifies Oak Woodland Corridors (OWCs) between PCAs that represent areas of connectivity to be considered in the INRMP process. OWCs include north-south crossings of Highway 50 that would link PCAs in the northern and southern parts of the County. Funding for vegetation (including fuels) management, fencing, and noxious plant control, and funding for land acquisitions could include Option B fees, State and Federal conservation grants, and public/private conservation organization partnerships.

The OWMP will be adopted and implemented several years before the INRMP is completed. As a result, the PCAs and OWCs recommended by this OWMP may be changed or further refined through the INRMP process.

## Natural Resource Values of Oak Woodlands

The term “oak woodland” refers to an oak stand with greater than 10 percent canopy cover or that may have historically supported greater than 10 percent canopy cover (Oak Woodlands Conservation Act, Fish and Game Code Section 1361). Oak woodlands support the agricultural and recreational industries and provide many natural resource values such as habitat for native wildlife, plants, and insects, some of which have special-status under State and Federal regulations. Oak woodlands contribute to nutrient cycling, soil quality and erosion control, water quality, and watershed health. Humans benefit from these ecosystem functions and from the aesthetic and open space values of oak woodlands.

The General Plan EIR identified fragmentation as a critical threat to oak woodland resources in El Dorado County. Fragmentation results in habitat degradation and reduces the natural resource values of oak woodlands discussed above.

## Oak Woodland Habitat in El Dorado County

This OWMP addresses the same study area (below 4,000 feet elevation) and same categories (California Fire and Resource Assessment Program, or FRAP) of oak woodlands as were addressed in the 2004 General Plan EIR. The 2004 General Plan EIR identifies six oak woodland types, two of which (Valley Oak Woodland and Valley Foothill Riparian) are designated as “sensitive habitats”. “Sensitive habitats” were identified through a review of the California Natural Diversity Database (CNDDDB) (California Department of Fish and Game 2002) and land cover data (California Department of Forestry FRAP 2002). Less than 3,500 acres of the Valley Oak type and none of the Valley Foothill Riparian type appears on FRAP mapping for El Dorado County.

The mapping for this OWMP concentrates on the five largest categories of oak woodlands as mapped by FRAP. The categories and rounded acreages for each are as follows:

**Table S-1: Oak Woodlands in OWMP Study Area**

<b>Oak Woodland Category</b>	<b>Abbreviation</b>	<b>Acreage (%)</b>
Blue Oak Woodland	BOW	42,400 (17)
Blue Oak-Foothill Pine	BOP	12,900 (5)
Montane Hardwood Woodland	MHW	155,900 (63)
Montane Hardwood-Conifer Woodland	MHC	34,200 (14)
Valley Oak Woodland	VOW	3,400 (1)
<b>Total Oak Woodland in Study Area</b>		<b>248,800 (100)</b>

The “sensitive habitat” designation and limited acreage of Valley Oak Woodland, the statewide low rate of regeneration for blue oaks including El Dorado County, the relative acreages of woodland types in the County, and the higher density land development in lower elevations (where valley oaks and blue oaks primarily occur) justify an ‘importance’ ranking for oak woodland types in El Dorado County as follows (highest to lowest importance):

- Valley Oak Woodland (VOW)
- Blue Oak woodlands (BOW and BOP)
- Montane Hardwood woodlands (MHW and MHC)

Through the retention, replanting, replacement, and preservation requirements of Policy 7.4.4.4 Option A and Option B, this OWMP provides greatest conservation emphasis on the VOW and BOW types. Similarly, as the OWMP is finalized, adopted by the County, and incorporated into the INRMP, the County should seek to acquire and manage the highest priority oak woodland types.

### **Mapping of Oak Woodlands**

To meet the purposes of the OWMP, to address fragmentation, and to establish areas within the County where oak woodland conservation and preservation would be emphasized, the County undertook a mapping process to identify the PCAs and OWCs described earlier. The mapping was conducted in three general phases:

- Phase 1 (Identifying Oak Woodland Resources) – Considering all oak woodland types in the study area, resource and habitat mapping criteria were identified and then applied. Large expanses of oak woodlands greater than or equal to ( $\geq$ ) 500 acres were identified.
- Phase 2 (Prioritizing Conservation Areas) – Using parcel size information for the Phase I results, and land use designations from the 2004 General Plan, the large expanses were narrowed to those lands where: 1) oak woodland habitats would not likely undergo substantial fragmentation, and 2) oak woodland conservation would be largely consistent with the 2004 General Plan land use designations. These large expanses were classified as PCAs.
- Phase 3 (Connecting the PCAs) – Remnant pieces (mainly 40 acres and larger) of previously mapped large expanses were combined with perennial (year-round) stream locations to delineate corridors (OWCs) that interconnect the PCAs and secondarily interconnect with public lands (e.g., Eldorado National Forest). Establishing and maintaining future connectivity between the PCAs and public lands is considered necessary to avoid ‘isolation’ of the PCAs. Placing the corridors coincident with perennial streams meets several INRMP criteria for conserving important habitat including aquatic environments, riparian habitat, and migration corridors for wildlife.

Figure S-1 shows the results of the above mapping process. If adopted, this OWMP would establish an oak woodlands resource base that, when managed for conservation and preservation purposes, will conserve a substantial portion of and maintain connectivity between blocks of important habitat (PCAs) to offset the effects of increased habitat loss and fragmentation

elsewhere in the County. OWCs to be considered through the INRMP will help ensure connectivity between the PCAs, and will be particularly important across Highway 50, which currently presents a major barrier to north-south wildlife dispersal. The estimated acreages of oak woodland types within the PCAs and OWCs are shown below in Table S-2.

**Table S-2: Oak Woodlands in OWMP-Recommended PCAs and OWCs (Acres)**

Oak Woodland Type	Priority Conservation Areas	Oak Woodland Corridors	Total (% of Plan Area CWHR Type)
BOW	11,000	4,600	15,600 (37)
BOP	1,600	1,700	3,300 (26)
MHW	24,300	35,500	59,800 (38)
MHC	2,900	5,800	8,700 (25)
VOW	300	900	1,200 (35)
<b>Total Oak Woodland Area</b>	<b>40,100</b>	<b>48,500</b>	<b>88,600 (36)</b>

Table S-3 below lists the names of the OWC segments that are displayed on Figure S-1.

**Table S-3: Oak Woodland Corridor Segments**

ID	Oak Woodland Corridor Segment	Acreage
1	Clark Creek	194
2	Big Canyon Creek	431
3	French Creek	3,250
4	N.F. Cosumnes River	6,755
5	Upper S.F. Cosumnes River	671
6	Scott Creek	752
7	Upper N.F. Cosumnes River	2,643
8	M.F. Cosumnes River	2,440
9	Upper Weber Creek	5,997
10	Dry Creek	3,091
11	Lower Weber Creek	7,394
12	S.F. American River	15,734
13	Rock Creek	4,420
14	Traverse Creek	1,755
15	Greenwood Creek	626
16	M.F. American River	11,151
17	Sugarloaf Mt.	731
18	Upper M.F. Cosumnes River	1,945
19	Cedar Creek	2,498
	<b>Total Area</b>	<b>72,476<sup>1</sup></b>

<sup>1</sup>The difference in total acreage (about 24,000 acres) between Table S-2 and Table S-3 consists of non-oak woodland CWHR types.

Placeholder for Figure S-1

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### **Options for Mitigating Oak Woodland Impacts**

Under Policy 7.4.4.4 of the 2004 General Plan, the County established two options (Option A and Option B) for mitigating impacts to oak woodlands on a project basis. In general, Option A sets forth measures for retention of oak canopy and replacement of oak woodlands, and Option B provides for a conservation fund, or 'fee', mechanism for mitigating oak woodlands. Option A has an oak canopy retention percentage and a 1:1 on-site replacement requirement, and the Option B 'fee' is based on area of woodland impact at a 2:1 ratio. Option B has the additional requirement (through General Plan Measure CO-U) of 1:1 on-site preservation of important oak woodlands for development projects impacting more than 10 acres.

The General Plan EIR identified fragmentation as a critical threat to oak woodland resources in El Dorado County. Fragmentation results in habitat degradation and reduces the natural resource values of oak woodlands discussed above. While fragmentation is unavoidable with any development or activity, the adverse effects on natural resource values can be partially mitigated through conservation, preservation, planning, replacement, and habitat management. Examples include: 1) maintaining large contiguous areas of oak woodland that function under a more natural state (Saving and Greenwood, 2002), 2) locating houses, commercial buildings, and roads to maintain oak woodland continuity through developments (e.g., valley oak woodland paralleling a stream course), 3) replanting oak woodlands that were previously removed for historical or discontinued land uses (e.g., abandoned orchard), and 4) improving opportunities for oak woodland regeneration using range management techniques, fuels/fire management techniques, and noxious plant controls.

The County evaluates projects for oak woodland impact issues and thresholds of significance when determining conditions of project approval including mitigation requirements. The County currently relies on Interim Guidelines (adopted November 2006) for implementing Policy 7.4.4.4 Option A, which includes oak woodland and biological resources studies, and Public Resources Code (PRC) 21083.4 (the California Oak Woodlands Conservation Law).

### **Option B Mitigation Fee Methodology**

A primary purpose of the OWMP is to develop a method for calculating mitigation fees under Option B for impacts to oak woodlands. To develop a recommended fee, which is intended to capture the full cost of acquiring, restoring, managing, and monitoring oak woodlands, the County undertook the following process:

- a) Clarify the Option B Mitigation Ratio Policy, which resulted in defining full mitigation as it applies to the fee, and clarifying the mitigation ratio of 2:1;
- b) Identify and evaluate potential acquisition, restoration, management and monitoring alternatives;
- c) Estimate potential costs of acquiring, restoring, managing, and monitoring oak woodlands; and,
- d) Develop a mitigation fee and identify potential adjustments to the fee in the future.

To evaluate potential costs for acquiring, restoring, managing, and monitoring under Option B, three cost scenarios were developed that reflect different assumptions concerning the ratio of rural to urban acquisitions, the ratio of fee title to conservation easement acquisitions, and the level of restoration and on-going management. Table S-4 below summarizes the range of the mitigation cost components on a per acre basis under these assumptions:

**Table S-4: Summary of Off-Site Mitigation Cost Scenarios (Cost Per Acre)**

Scenario	Low <sup>(1)</sup>	High <sup>(2)</sup>
#1 - 100% Rural Land Acquisition	\$ 8,700	\$ 20,000
#2 - 90% Rural/ 10% Urban Acquisition	\$ 11,400	\$ 24,700
#3 - 80% Rural/ 20% Urban Acquisition	\$ 14,000	\$ 29,300

- (1) 100% conservation easement acquisition, and low ranges of restoration, management and monitoring costs.
- (2) 100% fee title acquisition, and high ranges of restoration, management and monitoring costs.

To establish an economically viable program that meets the 2004 General Plan oak woodland policies and measures, this OWMP would initially implement for Option B a mitigation fee corresponding to the low end of the cost range for Scenario #3 (\$14,000 per acre). This fee is based on the approximate, relative distribution of rural and urban lands in the study area, as shown in the mapping of the PCAs and OWCs in Figure S-1. This mapping reflects acquisitions primarily in rural settings, but includes some urban acquisitions and land management activities through the higher cost lands along the Highway 50 corridor. The low end of the cost range for Scenario #3 assumes obtaining land through conservation easement and low levels of restoration and management activity for most of the PCAs. Regardless of the scenario selected, all include an endowment for on-going monitoring that is necessary to ensure County compliance on both project and County-wide levels.

Adjustments to the fee in future years would need to be made to account for expected cost increases to acquire land and for land management activities. A breakdown of the fee under Scenario #3 is shown in Table S-5. The land acquisition fee, for instance, would be adjusted based on the annual or five-year change in land value for property uses similar to those in the PCAs and OWCs recorded by the County Assessor's Office, using the Assessor's Property System Use Codes. Similar adjustments would need to be made for the other cost components of the fee.



**Table S-5: Initial Option B Fee – 80% Rural/20% Urban Land Acquisition  
(Cost Per Acre)**

Acquisition <sup>(1)</sup>	\$ 8,600
Restoration	\$ 1,400
Management	\$ 1,400
Monitoring	\$ 2,600
<b>Total Cost/Fee Per Acre</b>	<b>\$ 14,000</b>

<sup>(1)</sup> 100% conservation easement for low range of acquisition cost. Assumes rural land acquisition over 40 acres, and urban land acquisition between 5 and 40 acres.

### **Implementation of the OWMP**

The success of the OWMP in meeting the 2004 General Plan objectives, policies, and measures will be assessed by implementing an annual Monitoring and Reporting program. If the goals of the OWMP are not being met, including the economic viability and sustainability of the Option B fee mitigation program, then the County will revise the OWMP as necessary. OWMP administration will include:

- A County oversight committee, which consists of a diverse group of community interests, that meets to assess and report annually to the Planning Commission and Board of Supervisors on the status and acreages of oak woodland impacts, mitigation and conservation;
- A County-maintained database for the separate accounting of oak woodland conservation through the Option B fee and conservation achieved through other methods;
- A privately managed real estate database of landowners willing to participate in oak woodland conservation programs; and,
- A public land trust, conservancy, or other entity that is approved by the Board of Supervisors to hold, monitor, restore, maintain, and otherwise manage oak woodlands that are acquired or on which conservation easements or land management agreements are established.

Adoption of this OWMP will enable landowners/developers to exercise the Option B mitigation fee, which is a priority for the County. To help implement the program, the County would initiate an outreach program to land owners that is designed to demonstrate the economic, land management, aesthetic, environmental, and other benefits of conserving and managing oak woodlands, explain the principles of the OWMP, and identify opportunities for willing landowners and other interested entities to participate.

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