

March 10, 2008

El Dorado County Planning Services Attn: Monique Wilber 2850 Fairlane Court Placerville CA 95667

Sent via email to: monique.wilber@edcgov.us

Re: Comments on the Oak Woodland Management Plan (OWMP) and Negative Declaration (ND)

To Whom It May Concern:

I am submitting these comments on behalf of the El Dorado Chapter of the California Native Plant Society, Center for Sierra Nevada Conservation, Sierra Club, and El Dorado County Taxpayers for Quality Growth. My clients appreciate the opportunity to comment on the OWMP and offer the following for your consideration.

I have a B.A. in Botany form the University of California, Berkeley and a Ph.D. in Biology from University of California, Los Angeles. I am a professional biologist with over 14 years experience evaluating native plant resources in El Dorado County and throughout California. My expertise includes over 10 years experience reviewing and analyzing land management plans and the application of the National Environmental Policy Act and the California Environmental Policy Act to project planning. I have served as an expert on the Plant and Wildlife Technical Advisory and Oak Woodland Technical Advisory committees for El Dorado County providing expertise on native plant and habitat issues, and in particular, advice on oak woodland conservation. I have also provided expert advice and technical assistance to local government and non-profit agencies on the biology and habitat values of oak woodland and strategies in support of oak woodland conservation. I have reviewed the El Dorado County Oak Woodland Management Plan (February 2008; hereinafter referred to as "OWMP"), the Initial Study/Negative Declaration for the OWMP, and various staff reports posted at the County's website.

As my clients identified in the comments they submitted on the draft OWMP¹, the purpose of the OWMP is to implement all or portions of several general plan policies relating

¹ These comments were submitted on December 12, 2007 and are incorporated by reference.

#7 Pg 2 Own 15/ND

to the conservation of oak woodland habitat. My clients strongly support the general plan policies that address conservation of oak woodland habitat. They view the commitments made by the County in the various environmental and decision making documents that accompany the general plan as providing the basis for understanding and interpreting the intent of the existing general plan policies. They ask the County to adopt a plan and mitigation program that implements fully the intent of these policies.

To that end, I note that the Final Environmental Impact Report (FEIR) for the general plan stated that the intent of Option B (replacement) for Policy 7.4.4.4 is "to preserve (through acquisition or conservation easements) existing woodlands of equal or greater biological value as those lost." (El Dorado County 2004, FEIR, Chapter 4, p. 4.1-51). As discussed in the comments below, I believe the OWMP as currently drafted does not meet the direction "to preserve...existing woodlands of equal or greater biological value as those lost" nor does the proposal achieve the direction in Policy 7.4.4.4 to "fully compensate for the impact to oak woodland habitat." The OWMP also does not comply with the direction for the development of the Integrated Natural Resource Management Plan (INRMP) and as such can not satisfy the requirement in the existing settlement agreement to allow the use of off-site mitigation (Option B) "only after the County has adopted the oak woodland portion of the Integrated Natural Resources Management Plan described in General Plan Policy 7.4.2.8." Further, I find that the ND provided for the plan is inadequate in a number of ways, in violation of the California Environmental Quality Act (CEQA).

I. Review of the OWMP

A. The Extent of Oak Woodlands Affected By A Project Is Improperly Defined in the OWMP.

Limiting the measurement of oak woodland affected to simply the area of oak canopy lost (Staff Report, February 12, 2008, p. 2) is inconsistent with the definition of oak woodland applied in the General Plan (i.e., Policy 7.4.4.4 refers to "10 percent total canopy cover by woodlands habitats as defined in this General Plan"), the definition stated in the OWMP (p. 5), definition adopted by the State of California (Fish and Game Code 1361 (h)), and the definition established by State of California wildlife experts (California Wildlife Habitat Relationships 2008). In all cases, the definition of oak woodland is a combination of the area affected (acres) and the canopy cover (% cover) apparent across that area. Thus, oak woodland is universally recognized as a habitat that includes the oak trees, the open space between, and the plant and wildlife communities that live therein.

The practical application of the correct definition of "oak woodlands" has been clearly identified by other jurisdictions. Placer County, for example, has adopted an approach in the evaluation of oak woodlands that recognizes the distinction between "oak trees" and "oak woodland" stating that their "new procedures make a distinction between <u>oak woodlands</u> (as ecosystems) and <u>oak trees</u> (as individual resources)." (Harris 2007).

The OWMP incorrectly states that the "General Plan uses the term 'oak woodland' interchangeably and in the same context as 'oak canopy'." Policy 7.4.4.4 clearly distinguishes

#7 pg3 pown 15/ND

between "oak woodland" and "oak canopy." First, Policy 7.4.4.4 states that that policy applies to "all new development projects ... 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." Thus, the criterion for applying the policy is based on the presence of oak woodland defined as 10% canopy cover or greater. This is distinguished in the policy from the process used to calculate, under option A, the reduction in canopy cover allowed while still satisfying this option. The characterization of what constitutes "oak woodland" is distinct from the process used to assess its quality or nature (i.e., assessing canopy cover). Further, Option B makes no reference to canopy cover as a criterion for consideration. In this option, the assessment is based on total oak woodland affected and does not rely on canopy cover to determine the degree of impact.

Second, the DEIR for the General Plan also supports this interpretation. The impacts of the general plan on major habitat types were assessed using information developed from the California Wildlife Habitat Relationship (CWHR) system (El Dorado County General Plan DEIR, May 2003, Biological Resources, p. 5.12-1). CWHR defines oak woodlands as areas containing greater than or equal to 10% canopy cover. The DEIR reports that total area of woodland affected in the county and includes all woodlands with 10% canopy cover and greater. Further, the impacts analysis provided for the general plan and alternatives is based an evaluation of proposed land uses in relation to existing oak woodlands of 10% canopy cover and greater. Had the terms been used "interchangeably" the DEIR would have estimated the area of "oak canopy" coverage and limited the analysis to a discussion of the impacts to the area shaded by an oak tree. In fact, "oak canopy" is not mentioned in reference to analyzing the effects of the alternatives. It is only mentioned in relation to defining, in part, a mitigation measure (Policy 7.4.4.4) to reduce the impacts of development.

Lastly, the FEIR for the General Plan does not support this interpretation of the General Plan. The response to comments on the General Plan (El Dorado County General Plan 2004, Response to Comments, Section 4.1, p. 52) states "the definition of what constitutes an oak "woodland" is somewhat subjective but is generally understood to describe areas with canopy cover exceeding 10 percent." Further, the Findings of Fact (El Dorado County General Plan 2004, Findings of Fact, p. 124) state that "Mitigation Measure 5.12-1(f) would protect oak and other hardwood woodland from development by requiring the retention of a specified percentage of existing canopy cover as well as replacement of the habitat at a 1:1 ratio."

The calculation of the area requiring replacement for Options A or B should be based on the total woodland removed and not on a tree or canopy basis. For example, removal of 5 acres of oak woodland requires replacement of 5 acres of oak woodland. However, under OWMP if the canopy cover of the 5 acres proposed for removal was on average 30% and the mitigation ratio was 1:1, then only 1.5 acres of oak woodland would be required for mitigation. This approach significantly underestimates the area needed to mitigate for the loss of 5 acres of oak woodland. The determination of woodland removed must be based upon the area of overlap between the oak woodland existing on-site prior to development and the development footprint. The area of oak woodland within the development footprint is calculated and considered "lost", i.e., woodland functions are irretrievably impaired. The footprint should include all structures,

#7 pg 4 owm 15/ND

infrastructure, grading, landscaping, and pavement, plus a buffer circumscribing the entire area. This is the approach that has been adopted by Placer County (Harris 2007).

B. The OWMP Fails to Mitigate the Increased Fragmentation of Oak Woodlands that Would Result from Development.

The potential for fragmentation of oak woodland habitat as a result of residential and commercial development was clearly identified in the environmental impact report (EIR) for the general plan that stated:

Most of the development pressure in El Dorado County is likely to occur in the foothills near the U.S. 50 corridor (refer to the Section 5.1, Land Use and Housing, for more specific information on development trends). Through the 2025 planning horizon, it is likely that wildlife habitat below the 2,000-foot contour line and closest to the highway corridor would be most affected.

(El Dorado County General Plan EIR, May 2003, Biological Resources, p. 5.12-39) The EIR also referenced research studies on the effects of land use policies on habitat fragmentation in El Dorado County as a result of the development proposed in the 1996 general plan. The EIR found that:

Saving and Greenwood calculated habitat loss and fragmentation incorporating the effects of 1996 General Plan policies that were adopted to preserve and protect habitat. An in-depth description of the methodology used for this study has been published on the CDF-FRAP website (Greenwood and Saving 1999). The following paragraphs summarize the study results.

Saving and Greenwood concluded that implementation of the 1996 General Plan would have a substantial adverse effect on wildlands and that General Plan policies only marginally mitigated habitat loss and fragmentation. The authors found that much of the impact on wildlands was associated with habitat fragmentation.

(Ibid.) Further, the EIR highlighted the finding of Saving and Greenwood (1999) that:

Connectivity between northern and southern wildlands was raised as a particular concern because increased urbanization along the corridor threatens to create a separation between large areas of contiguous habitat in the northwest and southwest portions of the county.

(Ibid.) The recognition and concern about fragmentation also was stated in the environmental analysis that evaluated the mitigation measures adopted in the final approval process for the general plan. Specific measures were included in the final adoption process to address concerns about fragmentation and the FEIR found that "the measures with the proposed modifications would still substantially reduce the severity of the significant and unavoidable impacts to wildlife habitat." (El Dorado County Environmental Assessment of General Plan Mitigation Measure Changes, July 2004, p. 32) Lastly, the OWMP itself identifies fragmentation of oak woodlands from development and the impacts to north-south connectivity as a key concern (Appendix A). In sum, the County's planning documents recognize that fragmentation of wildlife habitat, including oak woodland habitat, requires specific mitigation. The policies adopted in the general plan were intended to address such mitigation and in specific instances to "to fully compensate for the impact to oak woodland habitat." (General Plan Policy 7.4.4.4).

15/ND

The proposal in the OWMP does not include areas for oak woodland conservation (i.e., Priority Conservation Areas (PCAs)) within approximately 2.5 miles of Highway 50, yet this is the very area identified in the EIR for the general plan where significant impacts will be occurring. Research by Saving and Greenwood (2002) found that a land acquisition or conservation approach could be applied that would retain connectivity of oak woodland habitat from north to south and across Highway 50.

The OWMP (p. 13) states that "Subsequent adoption and implementation of the INRMP, and incorporation of this plan into that document, will ensure connectivity between the PCAs. The INRMP will also address north-south connectivity across Highway 50 and the potential role of oak woodlands less than 40 acres in maintaining connectivity between larger expanses of oak woodlands." A delay in addressing the issue of fragmentation of oak woodland habitat is not appropriate since the very actions that will be permitted and mitigated using the OWMP are contributing to the fragmentation of oak woodland habitat. Failing to address the fragmentation of oak woodland habitat now will result in a lost opportunity to mitigate the impacts of development on oak woodland fragmentation.

C. The Proposed Mitigation Doers Not Compensate for Oak Woodland Habitat Value Lost.

The OWMP is unclear about exactly how the character of the oak woodland to be lost will be determined. The plan also does not specify how the oak woodland value that is lost will be replaced in a manner that preserves "existing woodlands of equal or greater biological value as those lost." (El Dorado County General Plan 2004, Response to Comments, Response to Comments, p. 4.1-51). This is the case for both Options A and B of the plan.

1. Characterizing the Oak Woodland Habitat Lost

The OWMP does not define how the lost woodland habitat will be characterized nor does the plan describe how those "lost" biological values will be replaced by the mitigation options. Several biological characteristics of the woodland need to be evaluated and addressed to ensure that woodlands will be replaced in a manner that preserves "existing woodlands of equal or greater biological value as those lost." (*Ibid.*) Characteristics that should be considered are described below.

Density of woodland canopy

The quality of the woodland is defined in part by its canopy cover. The plants found in the understories of oak woodland habitats vary with changing canopy cover and tree density. The animals associated with these woodlands also vary with tree density and understory plant species.

Species mix

Oak woodland habitat in the county can be of one species or a mixture. The species composition is driven by a number of factors including site condition, microclimate, and topography. Some species in the county are fairly uncommon (e.g., valley oak) and other species (e.g., live oak) are more widespread. Further, some species are found primarily

#7 6 P

east of Placerville (e.g., black oak) whereas other species (e.g., blue oak) are found primarily west of Placerville. Further, understory species associated with different woodlands types also vary. Attachment 1 to these comments lists plants found associated with the blue oak series and the black oak series statewide. These lists show that there is some similarity in species associated with each series as well as many differences. Thus, development projects that result in a loss of oak woodland in specific areas will have a localized effect on oak woodland values and the mitigation of these specific values must be addressed.

Important habitat elements

The California Wildlife Habitat Relationship (CWHR) system identifies major habitat categories and the elements that are important to them. These habitat elements include a number of attributes such as water, understory plants, snags, down logs. These elements add biological value to the described habitat types. Snags are a particular habitat element that was identified by the California Department of Fish and Game in their comments on the general plan. In responding to comments on the general plan, the County stated that "inclusion of snag protection is noted for the record and is an appropriate subject for consideration in the development of the Oak Woodland Management Plan and Oak Tree Preservation Ordinance." Snags and other important habitat elements need to be addressed in the DOWMP.

Woodland connectivity

The specific location of the woodland to be removed in relation to adjacent woodlands has biological importance. The effects of fragmentation on oak woodland habitat were highlighted in the DEIR for the general plan. Further, the general plan has a specific policy that addresses maintaining connectivity of stands with a specific reference to density as a quality of the stand to be managed:

Policy 7.4.4.5

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

The OWMP (p. 10) only requires the consideration of some of the habitat values mentioned above when a project proponent proposes to dedicate their own off-site conservation easement. There is no mechanism proposed to evaluate habitat value for projects that intend to contribute to the mitigation fund. The characteristics above should be included in any evaluation of impacts a development project would have on existing oak woodland values. This information also is necessary in order to develop mitigation measures that "fully compensate for the impact to oak woodland habitat" and "compensate for fragmentation as well as habitat loss" as directed by Policy 7.4.4.4.

2. Off-Site Mitigation Ratio of 1:1 for Option A.

Option A requires that a certain amount of oak tree canopy be retained on the property and that when allowable canopy is removed, it be replaced on site at a 1:1 ratio. The OWMP now allows, for flexibility, off-site mitigation under Option A at a ratio of 1:1. The mitigation

#77 pg mp 0

ratio of 1:1 is not consistent with the intent of off-site mitigation that is intended to "to compensate for fragmentation as well as habitat loss" (Policy 7.4.4.4) Thus under off-site mitigation, "the preservation mitigation ratio shall be 2:1 and based on the total woodland acreage onsite directly impacted by habitat loss and indirectly impacted by habitat fragmentation" (*Ibid.*). This issue was noted in the Staff Report (October 24, 2007. p. 3) wherein the County's planning experts recommended:

Due to habitat loss and fragmentation issues, staff recommends that be at a 2:1 ratio. Staff does not believe that the ratio can be reduced without amending the General Plan and further CEQA analysis.

Despite this recommendation, off-site mitigation under Option A was reduced to a 1:1 ratio in the OWMP.

3. Mitigation Is Not Concurrent with Development.

The OWMP does not address how the mitigation fee program will maintain concurrency with development. On its face, the plan appears to prevent concurrency since the fee structure is based on land values derived from the purchase of large (40 acre) parcels of land. Many of the developments that would occur in woodland areas and require mitigation are likely to be 20 acres or less. Given the fee structure proposed, there would not be sufficient funding to acquire conservation easements in step with the loss of oak woodland on these smaller development projects.

The OWMP also does not identify the specific agency that will be responsible for ensuring that acquisition of the conservation easements occurs and that acquired habitat "fully compensate[s] for the impact to oak woodland habitat" and compensates "for fragmentation as well as habitat loss" as directed by Policy 7.4.4.4. These costs need to be factored into the overall fee.

Lastly, the OWMP now identifies a specific approach to be taken annually to access the actual fees collected and adjust them for changes in land values. However, there is still no mechanism to ensure that this aspect of the plan will actually be implemented. The rare plant fee program now administered by the County serves as an example of why this is necessary. When originally approved in 1998, land values in some areas targeted for conservation were about \$18,000 per acre. In 2004, lands adjacent to these areas sold for about \$120,000 per acre and recent conversations with nearby land owners indicate their expectation that land values in the area now approach \$200,000 per acre. Acquisition of the land with values approaching \$200,000 per acre is needed to prevent the extinction of the rare plants, but insufficient funds are being collected by the County's fee program to raise the funding necessary to acquire this significant habitat. The existing ordinance for the rare plant fee program (Chapter 17.71) says that fees will be reviewed annually, but such a review has never occurred. Thus, even though required by statute, an annual review has never been conducted. The OWMP should adopt a condition that limits the future use of the off-site mitigation option if the County's obligations annually to review and adjust the fee program have not been met. Further, the funding to support this process must be incorporated in the mitigation fee structure.

#7 800 ml

4. The Proposed Mitigation Fee Is Too Low.

The proposed mitigation fee is based on land values for rural properties 40 acres or greater in size with a conservation easement value of 25% of fee title. The proposed fee of \$7,000 per acre is too low for a number of reasons.

First, the land values are limited to rural lands. As stated above, areas critical to the conservation of oak woodland habitat, that address issues of fragmentation and connectivity, occur in areas closer to community regions. These areas allow for higher intensity uses and as a result are valued at a higher cost per acre. During the general plan adoption process, the high cost of land for mitigation was considered and found to be feasible to implement for residential and commercial development.²

Second, the land values themselves are based only on properties that are 40 acres or larger. Mitigation areas that preserve "existing woodlands of equal or greater biological value as those lost" (El Dorado County General Plan 2004, Response to Comments, p. 4.1-51) may only be located on smaller parcels or on larger parcels where the seller is only willing to participate in a fee title acquisition. For such cases, higher per acre land values need to be factored into the fee structure.

Third, there is no evidence provided to justify setting the conservation easement value at 25% of the appraised value. The prohibited and allowable uses on a conservation easement that protects oak woodland habitat will necessarily prohibit residential and commercial building, road construction, mining, most agriculture, and other land disturbing uses. Limitations also will need to be placed on livestock grazing to ensure that practices do not adversely affect the integrity of the oak woodland habitat. These restrictions significantly reduce the opportunities to "use" the property and therefore significantly reduce the appraised value of the remaining use on the land. Conservation easements that are upwards of 80% of the appraised value are not uncommon. This phenomenon needs to be factored into the fee structure.

Lastly, the Staff Report (February 12, 2008, p. 4) indicates that the for profit conservation banking company consulted indicated that "a fee in the \$7,000 per acre range" would be difficult." The above information provided by experts in the field of land acquisition and management suggest that the fees are likely too low and will undermine the ability to achieve the conservation goals directed in the General Plan.

5. Restrictions for the Conservation Easements Are Undefined.

The success of the off-site mitigation depends on selecting the appropriate location and on developing the appropriate management. The conservation easement is the tool that will be used to establish the appropriate management of the conserved areas. Conservation of oak woodlands will require the prohibition of a number of uses such as road construction, subdivision, structural building, agricultural development, and mining. Conservation also

_

² See the general plan Findings of Fact (pp. 123-124) for a discussion of anticipated land values and the finding that such costs were feasible: "For example, undeveloped land prices in the southern part of the County can range as high as \$30,000 per acre."

15/ND

depends on limiting practices such as grazing to those times and intensities that benefit the conservation of the oak woodland habitat.

The OWMP does not clearly specify those practices that are generally prohibited or that require intensive management. This information is required in order to evaluate the ability of the conservation easement to provide adequate mitigation for future projects. This information is also necessary to inform those who are considering participating as willing sellers of the limitations that would be placed on the use of their land as a priority conservation area.

D. The OWMP Does Not Comply with General Plan Policy 7.4.2.8

Policy 7.4.2.8 was adopted to mitigate the anticipated impacts from the general plan (El Dorado County General Plan 2004, Findings of Fact, p. 117). As mentioned above, the OWMP is a subset of the INRMP that is required by Policy 7.4.2.8. As such, the OWMP must address the sections of that policy that are relevant to the conservation of oak woodland habitat. As noted below, several aspects of Policy 7.4.2.8 have not yet been addressed by the OWMP.

Component "A. Habitat Inventory"

It is recognized that the OWMP is part of the as-yet-to-be completed INRMP; however, there is no explanation of how the OWMP will be integrated into a future INRMP. Also, in the development of the OWMP, we are not aware of any coordination or consultation with the County Plant and Wildlife Technical Advisory Committee (PWTAC), California Department of Fish and Game, or U.S. Fish and Wildlife Service. Representatives from our organizations are members of PWTAC. The committee was never consulted about the DOWMP.

Further, "important" woodlands need to be defined now since the mitigation ratio may be different than established for Options A or B. Linkage of oak woodlands across Highway 50 and ongoing fragmentation is "important" and needs to be addressed in the OWMP. This is especially the case since the general plan requires that the loss of important oak woodland habitat be "fully" mitigated. For instance, the FEIR, Master Response (p. 4.1-50), states:

In a more general context, Mitigation Measures 5.12-1(d), 5.12-1(e), and 5.12-3(a) direct the County to develop an Integrated Natural Resources Management Plan (INRMP) and to adopt a nonet-loss policy for important habitat. These policies would apply to oak woodland habitat and other biological resources inventoried and mapped as important habitat under the INRMP.

The OWMP is a subset of the INRMP and must, therefore, be consistent with that plan. The County also recognized that the OWMP was a subset of the INRMP when they signed the settlement agreement on the general plan lawsuit, which stated that:

The County may require development projects to undertake mitigation Option B ...only after the County has adopted the oak woodland portion of the Integrated Natural Resources Management Plan described in General Plan Policy 7.4.2.8.

(El Dorado County et al. 2006) Deferring the evaluation of "important" oak woodland habitat and assessing their significance while development continues could result in

pg 10 OwnD

"important" oak woodland habitat being lost. This would be a violation of the general plan since it adopts a no-net-loss standard for protection of important oak woodland. See, for example, Response to Comments on the DEIR for the general plan (p. 4.1-51):

In addition, Mitigation Measures 5.12-1(e) and 5.12-1(j) would require development projects to avoid or, where avoidance is not feasible, to fully mitigate impacts to any oak woodland habitat designated as "important habitat" under the INRMP.

Component "B. Habitat Protection Strategy"

The policy states that "The goal of the strategy shall be to conserve and restore contiguous blocks of important habitat to offset the effects of increased habitat loss and fragmentation elsewhere in the county." Further it identifies that "When feasible, natural undercrossings along proposed roadway alignments that could be utilized by terrestrial wildlife for movement will be preserved and enhanced." The OWMP does not provide for contiguous blocks of habitat, but instead proposes a plan that will promote fragmentation of oak woodland habitat. There has been no provision in the current plan to conserve "contiguous blocks of habitat."

Component "D. Habitat Acquisition"

The policy directs the County to develop "a program for identifying habitat acquisition opportunities involving willing sellers." The OWMP has not identified any method for coordinating with potential partners or other organizations on habitat acquisition and management, nor has it identified any potential transaction-related features or regional considerations that would enhance the ability of the County to protect oak woodland habitat. The specific direction to "preserve natural wildlife movement corridors such as crossing under major roadways (e.g., under US Highway 50 and across canyons)" has not been incorporated in the OWMP.

Component "G. Public Participation"

As noted previously, we are not aware of any consultation during development of the OWMP with other governmental organizations charged with wildlife protection.

The OWMP (p. 1) mistakenly states that the OWMP "constitutes the oak portion of the County's Integrated Natural Resources Management Plan (INRMP)." The OWMP (p. 13) more appropriately identifies that the OWMP is incomplete in this regard and will require the additional work to evaluate fragmentation and north-south connectivity between oak woodlands.

Lastly, failure to comply with all the elements of the INRMP related to oak woodland conservation prior to implementing undertaking Option B and off-site mitigation violates the settlement agreement currently in force for my clients.³

CNPS et al. comments on OWMP and ND (March 10, 2008)

³ See settlement agreement: "The County may require development projects to undertake mitigation Option B ...only after the County has adopted the oak woodland portion of the Integrated Natural Resources Management Plan described in General Plan Policy 7.4.2.8."

#711 pg mb 05/ND

E. The OWMP Does Not Comply with General Plan Policy 7.4.2.9

Policy 7.4.2.9, which establishes an Important Biological Corridor (IBC) overlay, also was adopted to mitigate the anticipated impacts from the general plan (Findings of Fact, pp. 127-128). The IBC is intended to address "lands identified as having high wildlife habitat values because of extent, habitat function, connectivity, and other factors." The policy specifically references areas where the IBC is intended to address the conservation of oak woodland habitat:

higher canopy-retention standards and/or different mitigation standards/thresholds for oak woodlands

standards for retention of contiguous areas/large expanses of other (non-oak or non-sensitive) plant communities

building permits discretionary or some other sort of "site review" to ensure that canopy is retained

Furthermore, several of the elements of this policy identify limitations on development proposals (e.g. "increased minimum parcel size"; "lower thresholds for grading permits"; "more stringent standards for lot coverage, floor area ratio (FAR), and building height"; and "no hindrances to wildlife movement (e.g., no fences that would restrict wildlife movement)").

Even though the IBC overlay was specifically adopted as a measure to conserve oak woodland habitat and reduce the significant impacts of development on oak woodland habitat, the OWMP does not include implementation of the IBC in the plan. The OWMP should be revised to address implementation of the IBC for the conservation of oak woodland habitat.

II. Review of the Negative Declaration (ND)

One stated objective of the OWMP is to define a mitigation program that complies with General Plan Policy 7.4.4.4 to "fully compensate for the impact to oak woodland habitat" and "compensate for fragmentation as well as habitat loss." The implementation of the OWMP on a project-by-project basis is intended to satisfy the mitigation requirements established by the general plan. Planning staff has indicated that on adoption of the OWMP projects that implement the OWMP with respect to Policy 7.4.4.4 (Option A or B), will be able to claim that significant impacts on oak woodlands are mitigated to less than significant (Monique Wilbur, personal communication, March 3, 2008). However, the steps proposed by the OWMP to accomplish such mitigation, as described above, are not adequate. This new approach to mitigation would result in a substantial increase in the severity of the significant effects previously identified in the EIR for the General Plan. The ND does not identify or evaluate the environmental impacts of the changed management proposed in the OWMP.

For the reasons below, I believe the increased impacts would be substantial and therefore require the completion of an EIR to address the impacts of implementing a mitigation program that is less than analyzed in the FEIR for the General Plan. Further, the fee program is not adequately defined, in violation of CEQA.

P9 12 POUS | ND

A. The OWMP Does Not Mitigate Impacts To The Degree Described In The FEIR for the General Plan.

The General Plan adoption process found that it was necessary and feasible to adopt specific mitigation measures to lessen the significant adverse impacts on oak woodlands from the development proposed in the General Plan. General Plan policies 7.4.4.4, 7.4.4.5, 7.4.5.1, 7.4.5.2, 7.4.2.8 and 7.4.2.9 all address mitigation to reduce the impacts to oak woodlands.

Policy 7.4.4.4 as proposed by the OWMP fails to correctly define "oak woodland." The OWMP claims to use the term "oak woodland" interchangeably with "oak canopy," yet as described in section I.A, above, these terms are not interchangeable. Expert wildlife agencies, other jurisdictions, the County itself in the decision documents for the General Plan, and the wildlife habitat relationship system used to assess the condition of oak woodlands all rely on a characterization of oak woodlands that includes both the area covered by oak woodlands and the canopy cover of that area. All agencies define oak woodland as an area covered by oak canopy cover of 10% or greater.

The effect of limiting the definition of oak woodland lost to development to only that area where the oak canopy occurs significantly underestimates the loss of oak woodland value at the project level. The analysis of effects for the General Plan was based on an assessment of impacts to oak woodlands characterized by canopy cover 10% or greater. The mitigation measures adopted were designed to address this impact by fully compensating "for the impact to oak woodland habitat" and by compensating "for fragmentation as well as habitat loss" (General Plan Policy 7.4.4.4).

The General Plan EIR also identified habitat fragmentation and north-south connectivity as a significant impact. The mitigation measures were designed to compensate for "fragmentation as well as habitat loss" and "to fully compensate for the impact to oak woodland habitat." The OWMP, however, fails to address the north-south connectivity of oak woodlands, and instead adopts discrete Priority Conservation Areas that are unconnected locally or north-to-south across Highway 50. The consideration of mitigation for loss of connectivity is deferred to a future time which is contrary to the full compensation of "the impact to oak woodland habitat" required by Policy 7.4.4.4.

These changes in definition and intent from the General Plan EIR to the OWMP result in a substantial increase in the severity of significant effects previously identified in the General Plan EIR. These changes were not acknowledged or analyzed in the ND.

B. The OWMP Is Not An Effective Mitigation Program.

The OWMP is not an effective mitigation program, as required by the CEQA, for the reasons outlined in section I.C. First, the OWMP fails to characterize the oak woodland habitat to be lost. The collection of biologically relevant attributes, such as species composition, stand structure (age, presence of snags and down wood, shrubs, etc., for the habitat to be lost is not required by the plan. Further, there is no mechanism to ensure that those attributes, if collected, will be used in the selection of areas to mitigate the loss of oak woodland in the Priority

#7 13 p 05/ND

Conservation Areas. As a result, the expectation in the General Plan FEIR that oak woodlands will be replaced in a manner that preserves "existing woodlands of equal or greater biological value as those lost" (El Dorado County General Plan 2004, Response to Comments, p. 4.1-51) can not be met. Second, the mitigation fee proposed is too low. The proposed fee is barely acceptable to the consultant hired by the County to develop the fee program and the for-profit management company consulted. Inadequate collection of fees will result in too little oak woodland habitat being protected to "fully compensate for the impact to oak woodland habitat" (General Plan Policy 7.4.4.4). Third, the terms of the conservation easements are not defined. Because an easement restricts the uses of a property, these terms influence strongly the value of the easement. Easement valuation in the El Dorado County is known recently to have ranged from 56% to 79% of the appraised fee title value of the property (American River Conservancy 2007). The mitigation program bases the valuation of the easement on 25% of the property value; a significantly lower percentage that will result in insufficient funds being collected. Lastly, the OWMP makes no provision to ensure that mitigation is concurrent with development. Thousands of acres of oak woodland could be lost to development without any habitat being preserved.

The OWMP as a mitigation program fails to mitigate the impact to oak woodlands to the degree claimed. This in turn leads to an underestimate of the costs to preserve oak woodlands. As a result, the proper share of the mitigation for each party or project proponent has not been identified.

C. An EIR Is Required To Address Significant Impacts.

CEQA Guidelines Section 15168, Subdivision (2), states that "If the agency finds that, pursuant to Section 15162, no new effects could occur or no new mitigation measures would be required, the agency can approve the activity as being within the scope of the project covered by the program EIR, and no new environmental document would be required." Thus, for a lead agency to use a program EIR under CEQA Guidelines Section 15168, it must first apply the test for subsequent EIRs and negative declarations set forth in CEQA Guidelines Section 15162.

CEQA Guidelines Section 15162 indicates that a subsequent EIR or negative declaration is required only when substantial evidence in the record indicates that:

(1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;

The OWMP as a project is substantially changed from the mitigation measures defined and evaluated in the programmatic EIR for the General Plan. As identified in the sections above, substantial changes include the definition used for oak woodland, the failure to address north-south connectivity and fragmentation of oak woodlands, failure to collect adequate to compensate for project related impacts. Each of these changes substantially reduces the ability "to fully compensate for the impact to oak woodland habitat" (Policy 7.4.4.4). Thus, the expectation in the General Plan FEIR that oak woodlands will be replaced in a manner that preserves "existing woodlands of equal or greater biological value as those lost" (FEIR, Chapter

#714 03/ND

4, p. 4.1-51) can not be realized and severity of the impacts previously identified in the General Plan FEIR will be substantially increased.

D. Substantial Evidence Of Significant Impacts Requires The Preparation of an EIR.

The CEQA guidelines, section 21080(d) states that "If there is substantial evidence, in light of the whole record before the lead agency, that the project may have a significant effect on the environment, an environmental impact report shall be prepared." Further, "for the purposes of this section and this division, substantial evidence includes fact, a reasonable assumption predicated upon fact, or expert opinion supported by fact." (*Ibid.*, Section 21080(e)(1)).

There are numerous examples in the project record (e.g., staff reports, comments from submitted by agencies and individuals) of substantial evidence that indicates the project may have a significant effect on the environment. For instance, the Staff Report (February 12, 2008) provides evidence from experts from a non-profit land trust land business and a for-profit conservation banking company that the mitigation fee proposed (\$7,000 per acre) would be inadequate or a best difficult to implement. Failing to collect a sufficient amount of funding for the oak woodland mitigation measures described in the General Plan will increase the severity of significant adverse impacts on oak woodlands. This evidence, provided by experts and supported by facts, satisfies the definition of substantial evidence in the CEQA guidelines and the preparation of an EIR is required.

E. Additional Alternatives Should Be Analyzed In The Environmental Analysis.

Based on the issues identified by staff and the feedback from the public, the ND should have evaluated an alternative plan including the following:

- Establishment of opportunities for north-south connectivity across Highway 50
- A definition of oak woodland incorporates the oaks, intervening open spaces between trees and other habitat elements of an oak woodland as defined by CWHR
- Mitigation for the loss of oak woodland based on an assessment of biological value in a fashion similar to that applied in Placer County (Harris 2007)
- Higher mitigation fee
- 2:1 mitigation under Option A when off-site mitigation is allowed

These are areas about which there is controversy and for which the County staff, experts from other agencies, or the public have recommended different approaches.

III. Conclusion

As stated at the beginning of these comments, my clients support the policies in the general plan that address the conservation of oak woodland habitat. The oak woodlands around us contribute to our natural heritage and our rural quality of life. They are important for their biological and aesthetic significance. We ask that you modify the OWMP to address the issues that we identify above. We also ask that you prepare an EIR to address the increase in severity

P9 15 P

of impacts previously disclosed in the EIR for the General Plan and the significant impacts to oak woodlands that will be incurred by failing to adopt feasible mitigation measures to protect oak woodland resources and reduce fragmentation.

Please contact me (530-295-8210; britting@earthlink.net) if you have specific questions about these comments.

Sincerely, Swam Min

Susan Britting, Ph. D.

PO Box 377

Coloma, CA 95613

7 16 pg ml 0 who

References

American River Conservancy 2007. Comments submitted on draft oak woodland management plan. December 12, 2007.

California Wildlife Habitat Relationships 2008. http://www.dfg.ca.gov/biogeodata/cwhr/

El Dorado County General Plan EIR 2003. Biological Resources.

El Dorado County General Plan 2004. Final Environmental Impact Report, including Reponses to Comments, Findings of Fact, FEIR, and Environmental Assessment of General Plan Mitigation Measure Changes.

Harris, R. 2007. Ways to Conserving Oaks Along the Wildland Urban Interface. Oaks 'n Folks, Volume 23, Issue 1. August, 2007. University of California Integrated Hardwood Range Management Program.

Saving, S. C. and Greenwood, G. B. 2002. The Potential Impacts of Development on Wildlands in El Dorado County, California. USDA Forest Service Gen. Tech. Rep. PSW-GTR-184.

Staff Report, October 24, 2007. Submittal of Revised Draft Oak Woodlands Management Plan.

Staff Report, February 12, 2008. Oak Woodland Management Plan (Final Draft), Initial Study/Negative Declaration Environmental Document, and Implementing Ordinance

Attachment 1

Harris, R. 2007. Ways to Conserving Oaks Along the Wildland Urban Interface. Oaks 'n Folks, Volume 23, Issue 1. August, 2007. University of California Integrated Hardwood Range Management Program.

The Sprawl We Love to Hate: Land Development in Hardwood Rangeland

Adina Merelender, IHRMP Hardwoods Specialist, and Tom Scott, IHRMP Hardwoods Specialist

"... the things that make it [Los Angeles] most attractive are the very ones that are first to suffer from changes and deteriorate through neglect."

Olmsted Brothers, Bartholomew and Associates; 1930; Parks, Playgrounds, and Beaches for the Los Angeles Region.

From Redding to San Diego, California's oaks lie in the path of land development, covering some of the most valuable real estate in California. By an odd twist of fate, the amenities that draw potential residents to oak woodlands are often jeop-

ardized by the construction of their new homes. As noted by the Olmsted brothers, this pattern of consumption is at least 100 years old; but there is a limit to the woodlands we love, ultimately governing the places we can build or preserve. In this issue we cover the topic of oak conversions to housing, examining the process and proposed solutions to woodland losses.

Many authors (see Waddell and Barrett, Oaks and Folks, April 2006) have described the loss of oak woodlands to land development, and environmental groups frequently raise the issue of regulating

oak woodland conversions. In 2001, the state assembly signaled their concern over woodland conversions by creating the Oak Conservation Act (see below). In 2003, the state senate passed a bill which required environmental audits (under the California Environmental Quality Act; or CEQA) to careful consider impacts to oaks woodlands. But single-family housing construction is a juggernaut (worth over 70 billion dollars in 2005), and the expansion of suburban and rural housing has routinely overwhelmed planning efforts along the wildland urban interface.

Single-family detached homes continues to dominate the housing market, accounting for 60 to 65% of all residential units built in California communities. Since

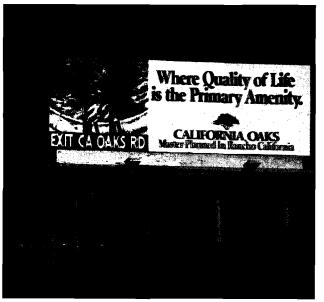
1977, about 825,000 acres of California's landscape has been converted into this type of land use. Much of this conversion occurred in farmland, but exponential growth of housing projects in hardwood-rangelands has dramatically increased woodland conversions (see Placer County article, this issue). About 2.5 million single-family detached homes are likely to be built in the next 15 years, which means about 600,000 more acres of conversion. It's not difficult to predict that most of these houses will be built in California's hardwood rangelands.

This demand for additional housing will be met both by traditional suburbs as well as rural residential

> development in unincorporated areas across the state. These two types of development are distinct in their appeal to the consumer as well as the regulations and policies that generally apply. Suburban development relies on urban sewer and water services and is fortunately moving toward increased densities. According to the US Census Bureau estimates, the average size of suburban lots has declined over 1000 sq ft over the past 30 years; and the percentage of small lots (<7000 sq ft) doubled from 18% to 35%

of new homes from 1976 to 2006. Since 1999, half of all new houses built in the western US were on lots <7000 sq ft, suggesting that other amenities have supplanted the demand for lawn. But small yards can translate into demands for neighborhood open space or adjacent wildlands (particularly oak woodlands), which creates odd patterns of woodland loss and preservation. There is a demand to conserve oak trees within concentrations of houses, either by local communities or by the home-buyers themselves. Exurban development generally consumes far more land per capita, relies on local (individual) wells and septic systems, and is often placed in hard-

wood rangelands. This creates a continuum from high-



Over half of the land developments in California have names that evoke ranch or wildland themes

Volume 23, Issue 1 • August 200

Continued on page 4, col. 1

AB 242 and SB 1334 — Oak Woodlands Conservation and CEQA

Greg Giusti, Wildlife & Natural Resources Specialist, and Tom Scott, IHRMP Natural Resources Specialist

■n 2001, Assembly woman Helen Thompson sponsored AB 242, leading to the Oak Woodlands Conservation Act of 2001. This law (Section 1363 of the Fish and Game Code) created a fund for the acquisition of oak woodlands under California Department of Fish and Game Wildlife Conservation Board (WCB). Oak conservation under the WCB was initially funded with 10 million dollars. Although this was a significant achievement in support for a non-endangered resource, the fund was created to prompt more significant actions on the part of local governments. Specifically, in order to qualify for WCB Oak Conservation funding, a project must occur in a county with a Oak Conservation Plan. The WCB sets no specific guidelines for a county's oak woodland management plans; leaving local government with the flexibility they need to address local conditions. Counties will undoubtedly tailor woodland conservation measures to match their situations, but in the process are prompted to examine oak

Cake 'n' Solks is the newsletter of the University of California, Division of Agriculture & Natural Resources, Integrated Hardwood Range Mangement Program.



EDITOR: TOM SCOTT, NATURAL RESOURCES SPECIALIST

DESIGN & LAYOUT: PAMELA J. TINNIN, INTEGRATED HARDWOOD RANGE MANAGE-MENT PROGRAM woodland conversions and the way they manage hardwood rangelands.

In 2003, Senator Sheila Kuehl sponsored SB 1334, to promote better auditing of oak woodland loses. The bill clarified the importance of oaks in California landscapes, created language in the Public Service Code (Section 21083.4; http://info.sen.ca.gov/pub/



03-04/bill/sen/sb 1301-1350/sb 1334 bill 20040924 chaptered.pdf) that required evaluation, and mitigation for any significant impacts caused by projects in oaks woodlands. Equally important, SB 1334 created a specific set of mitigation alternatives, including conservation easements, tree planting, and off-site mitigation by contributing to the WCB Oak Woodlands Conservation Fund (discussed above). Defining significant impacts under CEOA has never been easy, especially when every county in the state sets their own standards. A state workgroup, lead by the WCB has undertaken the task of the creating guidelines for significant impacts to oak woodlands, which should be available in the fall of this year.



Public Education: Oak Woodland Planners' Workshops

Next Workshop Scheduled for October 24, 2007 Pasadena Convention Center Pre-registration required http://danr.ucop.edu/ihrmp/

uring the last six months the University of California Integrated Hardwood Range Management Program (IHRMP) has hosted four Oak Woodland Planner's Workshops in Auburn, Paso Robles, Livermore and Redding. These workshops have been primarily targeted for planners, but many others interested in oaks and oak woodland conservation have attended. They were designed to showcase emerging ideas related to effective planning in oak woodlands and have addressed two relatively new state laws affecting oak woodland conservation (AB 242 and SB 1334). The Oak Woodland Conservation Act (AB 242) was passed in 2001 and allocates money to the Wildlife Conservation Board (WCB) for the purchase of conservation easements and to support educational activities promoting woodland conservation. SB 1334 was passed in 2005 and requires that if a county determines that there may be a significant effect to oak woodlands from a project, then the county shall require one or more of several mitigation alternatives. Determining what constitutes a "significant effect" is not clearly identified in the legislation so these workshops include a discussion of approaches for making these determinations, as well as how to best choose appropriate mitigation.

These workshops have also showcased a relatively new publication by the IHRMP titled A Planner's Guide for Oak Woodlands. This guide is designed to help planners and others interested in oak woodland conservation better understand the relationships between oak

Continued on page 6, col. 1

Ways to Conserving Oaks Along the Wildland Urban Interface

County Oversight: Placer County Guidelines for Evaluating Development Impacts on Oak Woodlands

Richard Harris, IHRMP Natural Resources Specialist

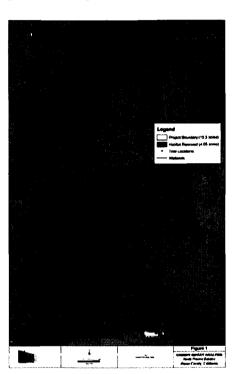
Placer County is the fastest growing county in California's Hardwood Rangelands, with over 47,000 homes (35% of county housing-stock) constructed over the past 12 years. The passage of Senate Bill 1334, prompted county planning staff to re-evaluate their procedures for CEQA analysis of development projects in oak woodlands. New guidelines for impact assessment have been formulated and are now used in processing applications for land development.

Prior to the development of these new evaluation procedures, impacts to oak woodland were assessed using Placer County's tree preservation ordinance. Project proponents were required to map and measure all oak trees larger than six inches diameter occurring on parcels proposed for development. Mitigation requirements were quantified by summing the total number of "inches" of oak trees lost to development. Planting or in lieu payments were considered acceptable mitigation measures. The new procedures make a distinction between oak woodlands (as ecosystems) and oak trees (as individual resources). Any site with two acres or more of oak woodland is subject to the new procedure. An oak woodland is defined as a vegetation community with at least 10 percent canopy cover that is dominated by an oak species. Oak woodland types in Placer County include blue oak woodland, montane hardwood, riparian woodland and valley oak woodland.

If a project meets the threshold for application of the new procedure, the amount of impacted woodland is determined by superimposing the "development footprint" onto a vegetation type map (see figure, below). The area of oak woodland within the development footprint is calculated and considered "lost" i.e., woodland functions are irretrievably impaired. The footprint includes all struc-

tures, infrastructure, grading, landscaping and pavement plus a buffer circumscribing the entire area.

Mitigation for lost oak woodlands can occur through off-site, permanent protection of equivalent oak woodlands



The figure illustrates a development footprint superimposed on a site dominated by blue oak woodland. On this 15+ acre site, there would be 4+ acres of oak woodland lost.

or through payment of an in-lieu fee to be used by the county to acquire equivalent habitat. Within the development footprint, provisions of the tree preservation ordinance apply to trees designated as significant and worthy of protection. On parcels with less than two acres of oak woodland, the tree preservation ordinance continues to apply. More information on Placer County's approach can be

Continued on page 5, col 3

Trading Development Rights in Exurbia

Adina Merelender, IHRMP Natural Resources Specialist

ne of the most common ways to control exurban growth is through trading development rights. The sale of development rights, usually from areas pre-zoned as "sending," allows for a concentration of development in designated "receiving" areas. Programs that promote the exchange of development rights have been in place for some time for agricultural land protection, as in New Jersey and Maryland. In these voluntary programs, landowners can sell "development credits" to developers in exchange for relinquishing subdivision rights from their property title. Due to the voluntary nature of many of these programs, they often do not have clear restrictions on sending and receiving zones, but more commonly follow planning guidelines such as restrictions on slope (Johnston and Madison 1997). In many cases the credits allow for increased development density in certain areas, and sometimes can lead to a reduction of environmental standards for a particular project. In this way TDR credits serve as a type of mitigation for environmental impacts. This is the case in Lake Tahoe, California, where the building envelope can be enlarged beyond regulation size if another property's building coverage area in the same watershed is retired.

The best programs carefully designate "sending areas" to maximize the environmental benefits and conservation of natural resources. Receiving areas should ideally be within the service boundaries, already zoned at a relatively high density (e.g. 1-5 acres), and/or within unincorporated towns to substantially increase development densities and reduce economic, social, and environmental costs.

Continued on page 5, col. 2

Continued from page 1, col. 2

The Sprawl We Love to Hate: Land Development in Hardwood Rangeland

er density housing with backyard oaks to the national forest. This gradient is often called the intermix by fire agencies, and is composed of suburbs, ranchettes in foothill woodlands, land protected by conservation easements, restoration areas, and open space parks.

Low-density residential development (lots > 1 acre), outside of urban services boundaries, has become one of the fastest-growing types of land-use in the United States. This pattern of development differs dramatically from the large subdivisions built in suburban California over past 50 years. California's exerbia is a scattering of homes on larger parcels of land (5 to 40 acre), typically with no organized water, sewer, or power services. This type of development can occupy fifteen times the area of higher-density development. Heimlich and Anderson (2001) estimate that nearly 57 percent of the acreage used for new housing construction in 1994-1997 was on lots ten acres or larger. Estimates based on nighttime satellite imagery suggest that about one third of the U.S. population now lives in exurban areas, but this proportion of the population occupies 10 times more land (14% of US) than urban residents (1.7% of US).

A well-documented example of the type of fragmentation that can result from exurban development was the Sierra foothills of California. Here, the median size of landholdings in 1957 for Nevada County was 223 hectares, but by 2001 it had been reduced to just 3.6 hectares. The impacts of this type of fragmentation on biodiversity are generally unknown; but the extent of the problem has lead to a demand for better information on the ecological implications of sprawl. Some have argued for further studies on the impacts to species conservation, and suggest an extinction debt (the time lag between disturbance and when species extinctions are observed) that remains to be paid resulting from the relatively recent expansion of exurban development.

The growth in rural residential development comes from factors that "push" residents towards these areas, such as low housing supply and higher costs associated with urban or suburban housing; as well as "pull" factors, such as attractive scenery and quiet country living (Heimlich and Anderson 2001). Exurban residents view the natural environment as an important amenity; one survey showed that 45 percent of Americans living in medium-to-large cities wanted to live in a rural or small-town setting, 30 or more miles from the city. But the exact attractants for this type of development are relatively undocumented, and the resulting patterns are not sufficiently quantified.

More information is needed on exurban development patterns to better evaluate the extent to which privately owned wildlands are modified by lowdensity development. Surveys of people living in exurbia are needed to identify the amenities that lure them to live in the countryside as well as factors that may push them toward remote locations. This information will help increase our understanding of the process and pattern of exurban development, which is needed to better address the problem through policies, regulations, and incentive programs. One of the best land-use change models used today that does address low-density development is UPlan (Johnston and Shabazian, 2003).

Conservation biologists are only beginning to address the consequences of low-density development for habitat loss, fragmentation, and biodiversity. Much of the work has focused on the response of bird communities to residential development, and demonstrate that the species found in low density housing may are similar to those occurring in more dense suburban housing. Odell and Knight (2001) also found that differences in wildlife densities between low and high density housing developments were insignificant. These results are cause for

concern, given the increasing amount and large geographic extent of exurban development. More research is needed on wildlife abundance along land use gradients that explicitly include areas of lowdensity development.

References on Suburban and Exurban Growth

Brown, D.G., K.M. Johnson, T.R. Loveland, and D.M. Theobald. 2005.
Rural land-use trends in the conterminous United States, 1950–2000.
Ecological Applications. 15(6):1851-1863.

Daniels, T. 1999. When cities and country collide: managing growth in the metropolitan fringe. Island Press

Hansen, A.J., R.L. Knight, J.M. Marzluff, S. Powell, K. Brown, P.H. Gude, and K. Jones. 2005. Effects of exurban development on biodiversity: Patterns, mechanisms, and research needs. Ecological Applications. 15(6):1893-1905.

Harte, J. 2001. Land use, biodiversity, and ecosystem integrity: The challenge of preserving earths' life support system. Ecology Law Quarterly. 27: 929-965.

Heimlich, R.E., and W.D. Anderson. 2001. "Development at the Urban Fringe and Beyond: Impacts on Agriculture and Rural Land." Agricultural Economic Report No. 803. Washington, D.C.: U. S. Department of Agriculture, Economic Research Service.

Johnston, R. A. and D.R. Shabazian. 2003. UPlan: A Versatile Urban Growth Model for Transportation Planning. Transportation Research Record 1831:202-209.

Manley, P.N., D.D. Murphy, L.A. Campbell, K.E. Heckmann, S. Merideth, S.A. Parks, M.P. Sanford, and M.D. Schlesinger. 2006. Biotic diversity interfaces with urbanization in the Lake Tahoe Basin. California Agriculture. April-June 2006.

Continued on page 5, col. 1

A Friend Passes—

n June 8, 2007 Barrett (Barry) Garrison passed away at the age of 49. Barry worked for the past eighteen years at the California Department of Fish and Game (CDFG), and for most of the 1990s was the CDFG representative to the Integrated Hardwood Range Management Program (IHRMP). He was a tireless advocate of oak woodland conservation and authored Fish and Game's Hardwood Guidelines, which were endorsed by both the Fish and Game Commission and the Board of Forestry at a joint meeting in 1994. He was also the lead investigator on a large study of California black oak and a contributor to a number of IHRMP publications.

But we remember Barry most as a colleague and friend with a personal sensitivity toward others. Less than a month before he died, Barry attended an IHRMP tour of Catalina Island to view their oak restoration program and other hardwood conservation activities. Barry stayed a day longer to see a bald eagle project that he worked on decades earlier as a student intern. Barry loved the natural world and devoted his professional life to helping ensure that it would be passed on to the next generation. We miss Barry greatly, but are comforted in knowing that during his all-too-short a time here—indeed—he made a difference.



Continued from page 4, col. 3

...The Sprawl We Love to Hate

Platt, R.H. 2004. Land use and society: geography, law and public policy. Island Press.

Rosenzweig, M.L. 2003. Win-Win Ecology: how the earth's species can survive in the midst of human enterprise. Island Press.

Theobald, D.M. 2001. Land-use dynamics beyond the American urban fringes

Geographical Review 91: 544-564

Bioregional Conservation Planning Under ESA: The Western Riverside County MultipleSpecies Habitat Conservation Plan

Tom Scott, IHRMP Natural Resources Specialist

Planning for conservation at a bioregional scale has the same appeal and pitfalls as County General Plans: good for general perspective, fuzzy specifics. In 1991, California adopted the Natural Communities Conservation Planning Program as a mechanism for habitat conservation planning across relatively large areas, such as the San Joaquin County or western Riverside County. These plans are designed to provide land-owners relief from the Federal Endangered Species Act (ESA), in exchange for protection of habitat across their planning areas. The advantage of these plans is that they promote local mechanisms (funding, acquisition, management) for resolving ESA conflicts, and blend habitat conservation with land-development. In 2006, three

Continued from page 3, col. 3

...Development Rights in Exurbia

Also, if it is important to protect the land adjacent to the sending zone, these areas should have some form of protection in perpetuity, either through the TDR program or another tool; otherwise these areas will be highly susceptible to growth after the receiving areas have been fully built out. However, the opportunity to sell and buy rights can increase the opportunity costs of both sending and receiving sites, and can accelerate growth and increase property values due to speculation on increased growth opportunities. These programs work best when they are wellplanned and executed at a time when options for receiving zones are plentiful, rather than waiting until options for zoning are highly constrained.

California plans received over 21 million dollars in federal funds for habitat acquisition, of which 18.5 million was spent acquiring hardwood rangelands. Most plans require local and state contributions; the CDFG WCB has acquired over 7000 acres of hardwood rangelands as a result of the Western Riverside Multiplespecies Habitat Conservation Plan, and the county has created a development fees on new-home construction, which is pooled to buy wildlands designated within the MSHCP area. The plan will be complete when approximately 160000 acres of habitat have been purchased; but the real test will be the persistence of species and vegetation after the region's buildout is complete. The plans require stakeholder buy-in, and typically succeed because they build social capital among developers and environmentalists. The negotiations are never pretty, and there is great danger that a one-time settlement will leave problems unresolved. However, participants agree that this form of wildland conservation beats everything else that has been attempted in San Diego, Orange, and Riverside Counties. At the present time about 15% of the state is covered or will be covered under these plans, mostly in areas of hardwood rangelands around the metropolitan areas of the state.

...Placer County Guidelines...

obtained by contacting Richard Harris, Cooperative Extension Specialist at <u>rrhar-ris@nature.berkeley.edu</u> or Loren Clark, Assistant Planning Director at Iclark@placer.ca.gov. - Oaks 'n' Folks

Continued from page 4, col. 3

..Oak Woodland Planners' Workshops

biology, ecology and public policy. The Guide's ultimate goal is to promote sound planning decisions that will lead to the conservation of California's oak woodlands and the myriad values they provide. Other workshop agenda items have included population growth projections for the state and their effects on natural resources; changes in demographics in the woodlands of California; oak woodland planning approaches in the counties where the meetings are held; and how conservation easements can help protect vital resources in the foothills.

These meetings have been well attended and surveys filled out by attendees indicate the meetings were well-received and provided useful information. But there were suggestions for improvements including adding some agency personnel to the speaker list and providing more "hands on" information as to how to implement SB 1334. The agendas have therefore been updated and we plan to continue modifying and improving future meetings based on participant comments.

The registration fee for attending these meetings is \$25-\$35 and includes

lunch and course materials, including the recently published Planner's Guide You can register for these meetings online by going to the IHRMP web site (http://danr.ucop.edu/ihrmp/).

For further information contact Sherry Cooper (530 224-4902) or email slcooper@nature.berkeley.edu or look at the announcement, and registration form on the IHRMP Web Page.



The University of California, in accordance with applicable Federal and state law and University policy, does not discriminate on the basis of race, color, national origin, religion, sex, disability, age, medical condition (cancer related), ancestry, marital status, citizenship, sexual orientation, or status as a Vietnam-era veteran or special disabled veteran. The University also prohibits sexual harassment. Inquiries regarding the University's nondiscrimination policies may be directed to the Affirmative Action Director, University of California, Division of Agriculture and Natural Resources, 111 Franklin St., Oakland, CA 94607-5200. (510) 987-0096

Non-profit U.S. Postage PAID Berkeley, CA Permit No. 824

Return Service Requested

Cooperative Extension Integrated Hardwood Range Management Program 145 Mulford Hall University of California Berkeley, California 94720-3114