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Public Comment, BOS 2/23/15, OWMP, file no. 12-1203

1 message

Ellen Van Dyke <vandyke.5@sbcglobal.net>

Sun, Feb 22, 2015 at 5:23 PM

To: Brian Veerkamp <bosthree@edcgov.us>, Ron Mikulaco <bosone@edcgov.us>, Shiva Frentzen <bostwo@edcgov.us>, Sue Novasel <bosfive@edcgov.us>, Michael Ranalli <bosfour@edcgov.us>, Jim Mitrisin <edc.cob@edcgov.us>

Public Comments for OWMP Decision points 4 thru 7, BOS February 23, 2015

Dear Supervisors:

Please consider these comments on the Oak Woodlands Management Plan update & include them in the public record for this item.

The overall sense that I get from reading both staff and Dudek memos for this hearing, is that there is more concern about developers accidentally mitigating twice, than there is concern for the resources we are trying to protect. There is a 'mindset' problem infiltrating the process. Please consider that development can happen *AND* resources can be protected at the same time, and make sure the protective policies are actually doing some protecting.

Decision point #4

1. The 'Tree Removal Permit' in current policy may have been considered a mitigation, but it has never been instituted. There is no point in designating heritage trees if they are not actually going to be protected. I did not see a discussion of fines.
2. Allowing tree removal of any trees for the owners 'personal use' eliminates any required preservation, and should be omitted, or have distinct parameters added.
3. From pg4 of the Dudek memo (attachment 11B) – *“However, the **current retention requirements do not actually require retention if an in-lieu fee option is used** and the current requirements can be confusing to interpret and implement at a project level, according to feedback provided by County staff.”*
 - a. This is not correct, and is worrisome that it would be written here. This would indicate 100% removal is currently allowed, which is not the case.
 - b. The interpretation of the current retention policies is not confusing in the least bit; it probably just isn't 'liked' by some in the development community.
4. Page 5 suggests defining Heritage trees as 36” or greater. This is TOO BIG. Both Tuolumne and Placer counties use 24”. (...these are counties Dudek says are most similar to ours...).
5. There is NO WAY that retention requirements should be made 'optional' or 'voluntary'. The meeting of retention requirements must be mandatory.

Decision Point #5

6. It is not clear to me why affordable housing, government projects, or parks should be exempt from retention requirements. Parks in particular should have the flexibility and an innate incentive to retain mature trees. If the concern is for parks with ball fields, I would say that if there is not any area that the proposed park site could accommodate a large level playing field, it is likely an inappropriate place to try to put one.

Decision Point #6

7. Dudek report, page 15, talks about the 'theoretical maximum' capacity of development allowed under the General Plan, identifying 175,000 acres of oak woodland potentially impacted as a result of this development. PLEASE NOTE that the Community Regions are of significant influence, and yet they have been given the very lowest priority for review, AFTER the oak woodland studies have likely been completed. This makes no sense. The oak woodlands and the Community Region boundary review should be done simultaneously, or the CRB's should be done first since they are a key factor in the determination of growth and development that will impact woodland.

8. The Priority Conservation Areas should certainly be updated rather than leaving them as they were delineated in 2008. The data on those maps is at least 7 years old. This process is already being rushed to the exclusion of resident working groups, such as those created during the previous OWMP effort (PAWTAC). We should not be in such a hurry as to utilize outdated information.

Thank you.

Ellen Van Dyke



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Biological Resources Workshop of February 23, 2015; File# 12-1203; Agenda Item# 1

1 message

Langley, Cheryl@CDPR <Cheryl.Langley@cdpr.ca.gov> Sun, Feb 22, 2015 at 10:04 PM
To: "Mikulaco, Ron@El Dorado" <bosone@edcgov.us>, "Nutting, Ray@El Dorado" <bostwo@edcgov.us>, "Veerkamp, Brian@El Dorado" <bostthree@edcgov.us>, "Briggs, Ron@El Dorado" <bosfour@edcgov.us>, "Santiago, Norma@El Dorado" <bosfive@edcgov.us>
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Board Members:

I've attached a document for the February 23, 2015 Biological Resources Workshop.

Thank you for the opportunity to comment on this project—it is greatly appreciated.

Cheryl Langley

 **February 23, 2015 BOS Meeting.V3.22.pdf**
236K

**Cheryl Langley
Shingle Springs Resident**

To: Board of Supervisors
Brian Veerkamp, Chair, District 3
Ron Mikulaco, First Vice Chair, District 1
Shiva Frentzen, Second Vice Chair, District 2
Michael Ranalli, District 4
Sue Novasel, District 5

Date: February 22, 2015

Subject: **Biological Resources Workshop of February 23, 2015; File# 12-1203; Agenda Item# 1**

Board of Supervisors:

Thank you for the opportunity to comment on the development of Biological Resources policy as it relates to the retention of oaks and oak woodland. Following are my comments on the Dudek memorandum for decision points 4 – 7.

In addition, I have some comments on the broader issues related to the Decision Points:

- **Appendix A** contains some information on the **efficacy of mitigation** requirements.
- **Appendix B** contains some suggestions that relate to **oak tree/woodland retention incentives**.

Decision Point 4:

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

Dudek Recommendation: (page 11)

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

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

I have the following responses for Decision Point 4:

- 1) The estimates of impact to oak woodland should be estimated relative to the Targeted General Plan Amendment/Zoning Ordinance Update (**TGPA/ZOU**).

Dudek estimates of oak woodland acreage impacted are based on the 2004 General Plan, not the TGPA/ZOU. Specifically, Dudek excluded oak woodlands on slopes greater than 30 percent, but **the TGPA/ZOU will enable development on slopes greater than 30 percent**. The TGPA/ZOU will also **amend Policy 2.2.3.1 (open space in –PD zones)**; this will *"...reduce the open space available for wildlife habitat in –PD zones and thereby increase the potential to adversely affect special-status species."* The TGPA/ZOU will also **delete Residential Agriculture** from the list of zoning regulations that provide for maintenance of permanent open space.

Thus, the estimates in Dudek's *Oak Woodland Impact and Conservation Summary Table 5* are short-lived.

- 2) There should be no parcel size-related exemptions for discretionary projects.

- 3) Please **retain Option A and modify Option B** to reflect the deposit of fees into a mitigation fund directed at the purchase of oak woodlands to be retained in perpetuity.

Policy 7.4.4.4 Option A should be retained and clarified to reflect oak woodland as the unit of measurement. **Option A should remain as structured, and should be the first line of defense for oak woodlands.**

For those projects that cannot meet the criteria established in Option A, **Option B should pertain only to those projects that absolutely cannot come to fruition without some deviation from Option A retention standards).** *Specific criteria* needs to be developed to identify projects that cannot meet the retention requirements of Option A.

Option B language could be worded as follows: *“The project applicant shall provide sufficient funding to the County’s INRMP conservation fund, described in Policy 7.4.2.8, to fully compensate for the impact to oak woodland habitat. To compensate for fragmentation as well as habitat loss, the acreage 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. For environmentally sensitive areas, such as riparian areas, the mitigation ratio shall be 3:1. The mitigation woodland acreage shall reflect to the extent possible the species diversity of the woodland acreage lost. The costs associated with acquisition, restoration, and management of the habitat protected shall be included in the mitigation fee. Impacts on woodland habitat and mitigation requirements shall be addressed in a Biological Resources Study and Important Habitat Mitigation Plan as described in Policy 7.4.2.8.”*

- 4) **Incentivizing** oak woodland retention rather than **requiring** retention is not an acceptable option in this case, nor is establishing a policy that allows 100 percent removal of oaks. **Most jurisdictions require a minimum of 20 percent oak retention; this is the percentage that must be retained and may not be mitigated under any circumstance.** (See Appendix B.)

The problem with allowing a *variable mitigation ratio approach* “incentive” scale is that **if few opt for anything above the 1:1 replacement, there is the potential that an acre of woodland lost could be mitigated by nothing more than an acre of acorns planted off-site.**¹ This is true not only because the Interim Interpretive Guidelines (IIG) for 7.4.4.4 allow for the off-site planting of acorns in lieu of saplings or container-sized trees, but because specific mitigation options have not been defined for this *variable mitigation ratio approach*, so one must assume that the mitigation options now available apply in this case.

Mitigation options need to be defined—or actually, redefined. After all, *tree* planting does not equal *woodland* replacement. And, as described in **Appendix A**, the current mitigation options are not adequate mitigation tools. Oak tree retention on-site, and the purchase of conservation easements (properties to be preserved in perpetuity) that include established woodlands, are the most effective mitigation tools. Revegetation on- or off-site is a poor substitute for “the real thing,” especially when bearing in mind that value as **wildlife habitat** is a factor to consider when mitigating for woodland loss.

Application of a more robust mitigation ratio—the 2:1 mitigation ratio (at a minimum), and 3:1 in the case of environmentally sensitive areas—means the developer will look at more options

¹ El Dorado County Interim Interpretive Guideline for Policy 7.4.4.4: (pages 2-3) **“Woodland Replacement:** *Replacement of removed tree canopy shall be at a 200 trees (saplings or one gallon trees) per acre density or as recommended by a qualified professional. Acorns may be used instead of saplings or one gallon trees. If acorns are used, they shall be planted at a 3:1 ratio as determined by the tree replacement formula. (Replacement Area in acres) x (200 trees per acre) x (3 acorns per tree) = the total number of acorns to be replanted.”*

for the retention of on-site oaks/oak woodland. This is where the “real” incentive lies for oak tree/oak woodland protection.

If it is the will of the Board to adopt this variable mitigation ratio approach, then the ratios should be revised—the curve needs to begin with a 2:1 replacement ratio and escalate from that point.

- 5) Regarding the **Dudek statement on page 5**: “It is expected that this approach **would simplify the oak woodland impact analysis process**, relative to the existing retention policy...” and (page 4) “...*the current requirements can be confusing to interpret and implement at a project level, according to feedback provided by County staff,*” I am not clear on **what makes the variable mitigation ratio approach “simple” and “less confusing” than Option A**. In either instance, an evaluation of existing on-site oaks/oak woodland needs to be performed, and mitigation determined.
- 6) **Mitigation for trees other than oaks** (oak woodland components, including understory) **needs to be included in mitigation language** (e.g., pine, cottonwood, willow, manzanita, etc.)

Decision Point 5: Oak Resource Exemptions

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

Dudek Recommendation: (page 13)

*“The recommended approach is to clarify the use of exemptions in most instances by combining similar exemptions for both oak woodlands and individual oak trees. Consistent with current standards, individual oak trees measuring or exceeding **36 inches** in trunk diameter would be regulated under the Heritage Tree provisions. Under this recommendation, projects that are consistent with the exemptions in state regulations (Kuehl Bill and General Order 95²) **and specific County policies** would be exempt from oak woodland and oak tree mitigation.”*

Responses for Decision Point 5:

- 1) Regarding the reduction of mitigation requirements for very low to moderate income housing, the level of exemption presented in the **OWMP (2008), page 6-7**, is unacceptable. **Example:** “A project proposes 25% of the units to be affordable in the lower income category. The amount of on-site retention or Conservation Fund In-Lieu Fee may be reduced by 25%. A moderate income project that provides all units at that income level may reduce the retention and/or fee by 50%. A project with 20% very low income units would receive a 40% reduction.”

Even if the County must somehow “subsidize” the retention of oaks on-site, this would be an investment well worth its cost: the aesthetics of the housing development would be improved—thus improving the living conditions for occupants—and it would enable the properties to better fit into the surrounding community.

- 2) It is possible that some developers could abuse this process, and include low to moderate income housing in developments for the sole purpose of oak tree/woodland mitigation

² **General Order 95: Rules for overhead electric line construction; (Rule 35: Vegetation Management)** “When a supply or communication company has actual knowledge...that dead, rotten or diseased trees or dead, rotten or diseased portions of otherwise healthy trees overhang or lean toward and may fall into a span of supply or communication lines, said trees or portions thereof should be removed.” Available at: <http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M146/K646/146646565.pdf>

reductions. **Care needs to be taken to craft any reduction in mitigation requirements very carefully to avoid abuses.**

- 3) Please do not exempt parks from the oak tree/oak woodland mitigation requirements. Parks are probably the most flexible/easiest places to retain oaks/oak woodlands.
- 4) Government (County) facilities should also retain oaks to the extent possible. After all, County government facilities reflect the values of the community.
- 5) In most jurisdictions, **heritage trees** are defined as a tree of twenty-four (24) inches or greater diameter at breast height (dbh) for all species except live oak, for which heritage is defined as a tree with at least one (1) trunk being twelve (12) inches or greater dbh. (See Appendix B.)
- 6) Many jurisdictions also establish protection for **significant trees**, defined as a tree of six (6) inches or greater dbh, with the exception of live oak, which are significant with at least one (1) trunk being four (4) inches or greater dbh. (See Appendix B.)

Decision Point 6: Priority Area Conservation Update (for Oak Woodlands)

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

Dudek Recommendation: (page 20)

"To better provide for availability of oak woodland habitats suitable for conservation, retain the PCAs shown in the 2008 OWMP and establish criteria for identifying additional conservation areas..."

Response for Decision Point 6:

- 1) I have no response for this Decision Point at this time.

Decision Point 7: Special-Status Resource Mitigation Requirements

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

Dudek Recommendation: (page 24)

"Using mitigation ratios for special-status biological resources, including vegetation communities, plants, and wildlife as a method of meeting the goal of the conservation strategy."

Responses for Decision Point 7:

- 1) I am not certain using "mitigation ratios" is an adequate approach in this instance.
- 2) Include California Department of Fish and Wildlife "Special Animals,"³ (if they are not already included), and emphasize the protection of habitat that supports this designation.

"Special Animals" is a broad term used to refer to all the animal taxa tracked by the Department of Fish and Wildlife's California Natural Diversity Database, regardless of their legal or protection status. This list is also referred to as the list of "species at risk" or "special status species". The Department of Fish and Wildlife considers the taxa on this list to be those of greatest conservation need.⁴

cc: David Defanti, Assistant Director, Community Development Agency, Long Range Planning
Shawna Purvines, Principal Planner
Jim Mitrisin, Clerk of the Board

³ California Department of Fish and Wildlife. 2015. *Special animals list*. California Natural Diversity Database, periodic publication. Available at: <http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/spanimals.pdf>.

⁴ "Special Animals." See California's Wildlife Action Plan (available at: <http://www.dfg.ca.gov/SWAP/>).

Appendix A

While it is clear the existing Interim Interpretive Guidelines (IIG) for Policy 7.4.4.4 will be replaced by the policies developed under the process now before the Board, it is probable some—or most—of the mitigation options relied upon in the IIG will continue to be used under the new policies. Therefore, it is important to have a discussion about the efficacy of the policies identified in the IIG.

The problem is, **the policies in the IIG are not effective mitigation for lost oaks/oak woodland.** The policies assume mitigation plantings can replace lost canopy/woodland within a **15 year period** regardless of the mitigation option chosen (container trees, saplings, acorns). However, none of the oak varieties that grow in El Dorado County have growth rates that can accomplish this target value, especially from the sapling/acorn stage, and yet this mitigation “prescription” is currently being relied upon to mitigate oak removals.

Synopsis of the study (and discussion) presented in this Appendix: (The Short Read)

A modeling study⁵ (based on observed growth rates) of blue oak (*Quercus douglasii*) concluded that it would take **50 years** for blue oak plantings to grow to **3.4 to 4.1 inches** in diameter at breast height (dbh), and that **canopy cover** would range from only **7 to 33 percent**. The study concluded, *“Even under fairly aggressive restoration efforts the largest mean diameter of the stand was quite small, only 3.9 inches, with a canopy cover of 33 percent.”*

According to the study author, **the results of the study call into question whether planted stands adequately mitigate the loss of mature stands, especially in terms of their value to wildlife.**

According to a study by McDonald,⁶ black oak (*Quercus kelloggii*) growth rates (from acorns) are estimated to grow to only 3.4 inches dbh at **20 years**, and 9 inches dbh at **50 years**. Interior live oak (*Quercus wislizeni*) is also reported as slow-growing.⁷

- According to the Planner’s Guide for Oak Woodlands:⁸
...ecologists now recognize that **replacing a century old tree with 1, 3, or 10 one-year-old seedlings does not adequately replace the lost habitat value of large trees.** It has become evident that simply focusing on **mitigation plantings based on a tree to seedling ratio is not a sufficient strategy to ensure the viability of oak woodlands.** Replacement seedlings as a mitigation measure for removal of older stands of trees **cannot meet the immediate habitat needs of forest-dependent animal species.**
- **Off-site measures should be considered sparingly and should not be viewed as a convenient way to achieve mitigation objectives; off-site mitigation proposals should be carefully considered so that the strategy is not abused.**

⁵ Standiford, R., et al. 2001. Modeling the effectiveness of tree planting to mitigate habitat loss in blue oak woodlands. USDA Forest Service General Technical Report PSW-GTR-184, 2002.

⁶ McDonald, P.M. California black oak (*Quercus kelloggii*). Available at: http://www.na.fs.fed.us/pubs/silvics_manual/volume_2/quercus/kelloggii.htm.

⁷ Fryer, Janet L. 2012. *Quercus wislizeni*. In: Fire Effects Information System, [Online]. U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, Fire Sciences Laboratory (Producer). Available: <http://www.fs.fed.us/database/feis/> [2015, February 6].

⁸ Giusti, G.A. et al (editors). 2005. A planner’s guide for oak woodlands. University of California, Agriculture and Natural Resources, Publication 3491, second edition.

According to the *Oak Woodland Impact Decision Matrix*,⁹ possible mitigation measures may include:

- **Retaining old trees** with irreplaceable characteristics;
- **snags** are maintained or recruited where safe and feasible;
- areas are designated to serve as seedling/sampling receptor sites or are **designed to facilitate natural oak recruitment**;
- appropriate sites for long-term oak recruitment should be identified **within the project impact area**, (e.g., roadside right-of-ways, utility easements, publicly owned open space, etc.);
- replacement should be of **like-species of trees**; and
- a county-wide policy should be developed stipulating a percentage of native oaks be planted in **all projects requiring landscape design approval**.

What the County Can do to Mitigate Impacts

If El Dorado County is interested in pursuing off-site mitigation (conservation easements) for impact to oak woodlands, suitable oak woodlands need to be identified. (The following Information was taken from the *Oak Woodland Impact Decision Matrix*.)¹⁰

- The county should develop and continually update (every 5 years at least) a land acquisition plan.
- Large continuous areas of mixed oak woodlands that are in need of protection from land conversion should be identified through a planning process.
- If a fund is to be set up for land acquisitions, the County needs to acquire all recent sales (1-3 years) data from woodland properties that are a priority for land conservation and determine the median value per acre for purchasing land in its entirety, and the price range for acquiring a conservation easement from properties in these areas.
- A fee needs to be calculated based on the cost of purchasing protected land in its entirety or through a conservation easement in the area identified as a priority for woodland conservation.
- The time lag between collecting the fee and purchasing land as compensation should be minimized, while still allowing for enough funds to be accumulated to implement a beneficial acquisition.
- Determine an appropriate mitigation ratio to establish the amount of in-kind area that should be protected to compensate for the likely impacts associated with the proposed project (i.e. same type of woodland such as blue, valley or mixed oak).

⁹ Giusti, G., et al. 2008. *Oak woodland impact decision matrix: a guide for planner's to determine significant impacts to oaks as required by SB 1334 (Public Resources Code 21083.4)*. UC Integrated Hardwood Range Management Program, 2008.

¹⁰ Giusti, G., et al. 2008. *Oak woodland impact decision matrix: a guide for planner's to determine significant impacts to oaks as required by SB 1334 (Public Resources Code 21083.4)*. UC Integrated Hardwood Range Management Program, 2008.

**Text of Standiford Study
and
A Discussion of Feasible Mitigation Measures
(The Long Read)**

Viability of County Mitigations

Replacement of oak tree canopy removed cannot be achieved within 15 years under any of the replacement scenarios proposed in the *Interim Interpretive Guidelines for Policy 7.4.4.4 (Option A)*. As a result, not only is the loss of oak canopy/woodland not appropriately mitigated, its wildlife habitat value is compromised.

Case in Point: The Standiford Study¹¹ (NOTE: This study was relied upon for development of the County's IIG.) A study to evaluate blue oak planting as a mitigation strategy for habitat loss by Standiford, et al., modeled development of blue oak (*Quercus douglasii*) stand structure over 50 years after planting. The growth model was based on actual blue oak stand age and structure data (Standiford 1997). For this study, data was collected from 55 sample blue oak trees in a ten-year old blue oak plantation at the Sierra Foothill Research and Extension Center in Yuba County, California, approximately 40 miles northeast of Sacramento.

In this study, two different management regimes were utilized, a **high management** intensity scenario that assumed these stands would **average 2 inches DBH after 10 years**, and there would be a 90 percent seedling survival. A **moderate management** scenario assumed that the stands would **average 1.5 inches DBH**, with an 85 percent seedling survival. **These assumptions are based on actual plantation growth** (McCreary 1990, 1995a, 1995b; McCreary and Lippit 1996; McCreary and Tecklin 1993) **and observations of operational restoration projects.**

For a planting density of **200 trees per acre** (the target density proposed under the County IIG), **10 years** after planting (under a high management intensity), it was anticipated trees would average 2 inches DBH with 90 percent survival; under moderate intensity management, trees were anticipated to average 1.5 inches DBH with 85 percent survival, and **20 years** after planting: 2.5, 2.0, respectively.

Canopy cover after **50 years** was projected to range from **7 to 33 percent**, with an average DBH after 50 years ranging from **3.4 to 4.1 inches**. Even under fairly aggressive restoration efforts the largest mean diameter of the stand was quite small, only 3.9 inches, with a canopy cover of 33 percent.

Even at lesser planting densities for both the high and moderate intensity category, planting only 100 trees per acre does not result in a stand with over 10 percent canopy cover after 50 years.

According to Standiford, the results of this study call into question whether planted stands adequately mitigate the loss of mature stands. The mitigated blue oak stand wildlife species list (specific to the Sierra Nevada foothills) was compared to a natural blue oak stand, averaging 10 inches DBH, with a 30 percent canopy cover. The natural stand was assumed to have small and medium size downed wood, snags, acorns and trees with cavities and was projected to have 102 vertebrate wildlife species. The number of vertebrate species projected to occur in a mitigated stand—after 50 years—was 73 species (1 amphibian, 40 bird, 19 mammal, and 13 reptile species). The results of this study underscore the fact

¹¹ Standiford, R., et al. 2001. *Modeling the effectiveness of tree planting to mitigate habitat loss in blue oak woodlands*. USDA Forest Service General Technical Report PSW-GTR-184, 2002.

that blue oak woodlands develop habitat conditions slowly, and that it may take in excess of 50 years to replace mature habitat that is lost in a particular project.

The results suggest it is important to evaluate if tree planting is a viable method of mitigation, especially because many important habitat elements such as cavities, acorns, snags, and woody debris may not be mitigated—at least in the 50-year interval evaluated in the study. Standiford concludes that in some cases it may be more cost effective to ensure that existing mature habitat is conserved through the purchase of conservation easements. But Standiford also believes that tree planting is an important conservation tool.

Case in Point: Growth Estimates for Black and Live Oak

The growth rates discussed previously are not atypical—regardless of oak species—and demonstrate what can be expected in terms of replant growth rates in the Western portion of El Dorado County. According to McDonald,¹² black oak (*Quercus kelloggii*) growth rates (from acorns) are estimated to be 3.4 inches DBH at 20 years and 9 inches DBH at 50 years. Interior live oak (*Quercus wislizeni*) is also reported as slow-growing.¹³

Additional Discussion: A Planner's Guide for Oak Woodlands¹⁴

(NOTE: This publication was relied upon for the development of the County's *Biological Resources Study and Important Habitat Mitigation Program Interim Guidelines (September, 2006) (BRSIHMP)*.

According to the Planner's Guide:

...ecologists now recognize that **replacing a century old tree with 1, 3, or 10 one-year-old seedlings does not adequately replace the lost habitat value of large trees**. It has become evident that simply focusing on mitigation plantings based on a tree to seedling ratio is not a sufficient strategy to ensure the viability of oak woodlands. [R]eplacement seedlings as a mitigation measure for removal of older stands of trees cannot meet the immediate habitat needs of forest-dependent animal species.

Consequently, the ultimate goal for planting mitigations should be tree establishment and long-term survival. The impact should be compensated for by replacing or providing substitute resources, such as **planting large container-grown trees, rather than seedlings or acorns** to expedite the recovery of the lost habitat component, or off-site mitigation actions, or mitigation banking. **However, off-site measures should be considered sparingly and should not be viewed as a convenient way to achieve mitigation objectives; off-site mitigation proposals should be carefully considered so that the strategy is not abused.**

Possible Mitigation Measures

According to the *Oak Woodland Impact Decision Matrix*, possible mitigation measures may include:

¹² McDonald, P.M. *California black oak (Quercus kelloggii)*. Available at: http://www.na.fs.fed.us/pubs/silvics_manual/volume_2/quercus/kelloggii.htm.

¹³ Fryer, Janet L. 2012. *Quercus wislizeni*. In: Fire Effects Information System, [Online]. U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, Fire Sciences Laboratory (Producer). Available: <http://www.fs.fed.us/database/feis/> [2015, February 6].

¹⁴ Giusti, G.A. et al (editors). 2005. *A planner's guide for oak woodlands*. University of California, Agriculture and Natural Resources, Publication 3491, second edition.

1) **old trees** with irreplaceable characteristics are retained; 2) **snags** are maintained or recruited where safe and feasible; 3) snags are well represented by size, specie, and decay class; 4) measures are initiated to minimize storm water runoff and other sources of nonpoint source pollution; 5) stream crossings include measures to minimize water quality degradation; 6) hydrologically disconnect effects of impervious surfaces from waterways; 7) areas are designated to serve as seedling/sampling receptor sites or are designed to facilitate natural oak recruitment; 8) appropriate sites for long-term oak recruitment should be identified within the project impact area,(e.g., roadside right-of-ways, utility easements, publicly owned open space, etc.); 9) **replacement of like-species of trees**; 10) use of like-species of trees in off-site planting sites; 11) a county-wide policy stipulating a percentage of native oaks be planted in all projects requiring landscape design approval; and 12) expand the impact of oak restorative actions across a larger spatial context on publicly maintained sites and roadways.

Appendix B

OAK TREE PRESERVATION INCENTIVES

For Public and Private Development

INTRODUCTION

Ordinance provisions that promote and support the preservation of oaks and oak woodlands will prove vital to the economic and aesthetic vitality of El Dorado County. Several provisions can be incorporated into ordinances that *incentivize the retention of oaks and oak woodlands* for development projects of all zoning designations.

With the development of the TGPA/ZOU, the County clearly rests on the brink of implementing policies that have the potential to change the face of the County. As development projects move forward, it is important make certain the essential character of the County remains intact.

A realistic path to the retention of the County's character is the preservation of El Dorado County's oaks and oak woodlands—for the sake of the woodlands, wildlife, and County aesthetics. It is important to remember the County's economic vitality (its tourist industry, specifically) is in large part dependent upon County aesthetics, which are in turn dependent upon the beauty of the natural environment. In the western portion of El Dorado County, this natural environment is made up largely of oaks and oak woodlands.

PROPOSAL GOAL

The goal of this proposal is to reduce the unnecessary removal of oak trees and oak woodland.

A WORD OF CAUTION

It should be noted that the following proposals are *suggested approaches only* and would need to be carefully evaluated and fleshed out in more detail to make certain that any *potential for abuse* is averted. To ensure sound development of such policies, I suggest the formation of a committee of development interests, County staff, the consultant (Dudek), staff from State agencies with expertise in the area of wildlife/wildlife habitat requirements, and interested members of the public.

Once again: the suggested approaches that follow are not intended as “cut and paste” policy language. And, projects eligible for site modification for oak tree/oak woodland retention must be *carefully evaluated to prevent abuse*.

INCENTIVES IMPLEMENTED IN OTHER JURISDICTIONS

Many jurisdictions in California (and other states) offer incentives for the retention of trees/woodland on project sites because retention adds value to developments and to the community at large. The following incentives are utilized to retain and protect trees:

- Administrative Review to Modify Lot Lines
This provision enables Planning Departments to **adjust the interior lot lines** from the approved plan to place existing trees within side or rear yards, potentially reducing the size of the lot below the minimum required square footage for lots. The reduced square footage can be

compensated for by adding an equivalent area on an adjacent lot either on the sides or rear of the smaller lot.

- Minimum Lot Size and Setbacks

The minimum lot size may be waived where the developer demonstrates the following:

- A waiver is necessary to preserve a significant or heritage tree;
- The average lot size of the proposed development will equal or exceed that of the applicable zoning district;
- The resulting lot sizes or setbacks do not violate the master plan or the applicable neighborhood plan.

- Alternative Location of Utilities Within Right-of-Way

Planning Departments can establish an agreement with utility companies allowing realignment of utilities into the public right-of-way for the purpose of avoiding the drip line of retained oaks or oak woodland.

- Parking Space Reduction

Developments that retain oak trees or oak woodland could be entitled to a reduction in the minimum parking requirements. Other jurisdictions have used the following formula:

- The minimum parking requirements may be reduced by one (1) parking space for every four (4) diameter inches of trees that have been protected for mitigated on a site.
- Up to fifteen (15) percent of the required spaces may be waived, or a waiver in excess of fifteen (15) percent if approved by planning and development services.
- A waiver of up to fifty (50) percent of the minimum parking spaces may be granted if the plan will result in the preservation of woodlands or significant stands of trees in a natural state.

- Use of Alternative Materials in Parking Areas

Some jurisdictions allow the use of alternative materials (porous materials) in parking areas that support the survival of adjacent trees. In this instance, an arborist may be consulted to develop a plan for the retention of trees in and around parking areas.

- Sidewalks

A waiver may be granted to eliminate, reduce in width, or modify sidewalk and curb requirements to accommodate tree preservation.

- Tree Retention Credit

In cases where development on a proposed lot will **retain existing oaks or oak woodland, the developer is provided with a level of monetary credit.** For instance, if tree deposits are collected (for the removal of trees, for instance) some portion of that fee could be refunded to the developer. However, if a retained tree is subsequently removed, most such provisions require the developer to re-vegetate with two trees of greater or equal canopy potential (rather than return a fee or face a penalty). In most jurisdictions, these plans require that 20 percent of the existing tree canopy is preserved and may not be mitigated.

- Tree Cluster Preservation Credit

In recognition of the importance of preserving trees in a cluster, additional tree preservation credit could be given if the development preserved the following:

- A cluster(s) of three (3) or more trees less than ten (10) feet apart and with a minimum size of four (4) inches in diameter.
- A cluster(s) of three (3) or more trees less than ten (10) feet apart with a minimum size of two and one-half (2 ½) inch diameter plus existing understory.

- Understory Preservation in Lieu of Landscaping
For projects that require a landscape plan, a registered arborist or native plant expert could make a determination that the preservation of native understory together with trees grouped in significant stands (woodland) can be substituted for new plantings needed to meet landscape requirements. Or, retention of the trees/understory could result in a monetary credit that would reduce construction/development fees.
- Credit for Landscaping with Native California Vegetation
Landscape credits may be applied to the reduction of the cost of building/construction permits when landscaping consists of re-vegetation with California native varieties, especially those native to the area of the project site. The level of monetary credit could be based on the amount of landscaping and degree to which the developer utilizes a diversity of tree and/or understory species that are native to the area and thus have the capability to support area wildlife. A registered arborist or native plant expert could be consulted to provide guidance regarding specific plants (trees and/or understory) that are suitable for the project site. Most jurisdictions that allow landscape credits require that the trees survive for twelve (12) months, or be replaced at the end of that period.

WHAT OTHER JURISDICTIONS ARE PROTECTING

The following discussion presents some information regarding what other jurisdictions are requiring in conjunction with the preservation incentives listed above.

Minimum Tree Canopy Retention

Most of the jurisdictions that utilize some of the measures described above require a minimum retention of 20 percent of the existing tree canopy. This is the percentage **that must be preserved and may not be mitigated under any circumstance.**

Heritage Trees

For most jurisdictions, a heritage tree is defined as a tree of twenty-four (24) inches or greater diameter at breast height (dbh) for all species except live oak, for which heritage is defined as a tree with at least one (1) trunk being twelve (12) inches or greater dbh.¹⁵

Significant Trees

For most jurisdictions, a significant tree is defined as a tree of six (6) inches or greater dbh, with the exception of live oak, which are significant with at least one (1) trunk being four (4) inches or greater dbh.

Diversity

For most jurisdictions, project applicants are to preserve a diversity of tree species as determined by a registered arborist.

Environmentally Sensitive Areas, Including Floodplains

In environmentally sensitive areas, such as riparian and floodplain areas, other jurisdictions advocate retention of a minimum percentage of understory under preserved trees. In addition, they require 100 percent retention of *heritage trees*, and 80 percent retention of *significant trees*.

¹⁵ One example: Placer County. See: City of Rocklin. 2006. Oak Tree Preservation Guidelines. Available at: <https://www.rocklin.ca.us/civica/filebank/blobload.asp?BlobID=2308>

Root Protection Zones

In most cases, root protection zones are established around the trunk of each tree preserved. The root protection zones are defined by the canopy drip line in most instances, but the area must be verified by a registered arborist. Root protection zones are preserved at natural grade, with natural groundcover. No cutting, filling, trenching, root disturbance, soil disturbance, or construction impacts are to occur closer to the trunk, unless allowed or prescribed by a registered arborist. Native understory vegetation within the root protection zone is preserved, however this requirement is modified in some jurisdictions to include root protection zones that have been landscaped using native, drought tolerant plants. The area contained within a root protection zone must be left in a previous condition after construction and development are completed.

Performance Bonds

Most jurisdictions require performance bonds to assure compliance and set penalties for infractions.

OTHER TOOLS FOR OAK TREE/OAK WOODLAND RETENTION

- **Conservation Easement Tax Benefits**
A landowner can receive tax benefits for making a charitable donation of a conservation easement. Properties adjacent to such easements often benefit from increased property values—a benefit to the landowner and to the County in terms of increased property value of properties adjacent to such easements (and therefore, increased property tax collection).
- **Wildlife Conservation Board (WBC) Grants**
The WCB provides substantial funding for counties that have qualified for its Oak Woodlands Conservation Program. Moneys from the oak Woodlands Conservation Fund are available for purchasing local conservation easements, educational outreach and oak woodlands restoration. Most grant funds are used to acquire easements.
- **Natural Heritage Preservation Tax Credit Act of 2000** (as amended, Assembly Bill 94 - 2009)
This Assembly Bill (AB 94) reauthorized the Natural Heritage Preservation Tax Credit Act. The purpose of this Tax Credit Program is to protect wildlife habitat, parks and open space, archaeological resources, agricultural land and water by providing state tax credits for donations of qualified land (fee title or conservation easement) and water rights to a designated organization or agency (state/local government or non-profit). The property and contribution must be approved by the California Wildlife Conservation Board.
- **Carbon Credit Market**
Landowners with 100 acres or more oak woodland can participate in the carbon dioxide credit market. Landowners may also pool their oak woodlands for California Climate Action Registry (CCAR) purposes. Oak woodland carbon credits are earned for **avoided conversion and reforestation**.¹⁶

BENEFITS OF THIS PROPOSAL

Ordinances developed for the purpose of preserving oaks and the oak woodland community will prove vital to El Dorado County (EDC), and will maintain the health, aesthetic, and economic vitality of the County.

¹⁶ California Oak Report. 2009. Available at: http://www.californiaoaks.org/html/oak_report_01-09.html.

According to a Calaveras County document,¹⁷ **woodlands contribute to increased property values and a subsequent increase in property tax revenues.**

One study in Southern California showed that a 10% decrease in the distance to an open space preserve increased the value of 4,800 surrounding lots by over \$20 million dollars, significantly increasing tax revenue to the county. In addition, lots containing native oaks have been found to be valued at a 27% premium over properties having no trees. Individual trees of large size or landmark status within a community were found to increase property values by an additional \$18,000 to \$50,000 each (Standiford 1999a). Studies comparing tree populations and property values also indicate that retaining approximately 40 trees per acre generally provides optimal lot coverage and yields the highest market value premium, roughly 22% to 27%, over bare land (Standiford 1999a).

Woodland preservation also contributes to:

- Maintaining the beauty of the County;
- Protecting public health through the adsorption of air pollutants, thus improving air quality;
- Providing visual screening and summer cooling;
- Maintaining slope and soil stability;
- Reducing erosion and flooding;
- Providing groundwater recharge;
- Filtering storm water and reducing runoff, thus enhancing water quality;
- Maintaining wildlife habitat;
- Maintaining diversity of trees in order to mitigate insect/disease epidemics, thus supporting agricultural operations;
- Protecting cultural and historic sites/artifacts (which tend to be co-located with oak woodlands);
- Supporting a vibrant tourist trade by maintaining the visual integrity of the County;
- Supporting recreational activities that provide local economic benefits, such as hiking, cycling, skiing, local train excursions, off-road vehicle excursions, and other recreational opportunities;
- Supporting a community goal that recognizes the importance of trees;
- Promoting and protecting the health, safety and welfare of the public by sustaining an environment that is aesthetically pleasing and that promotes economic development through an enhanced quality of life;
- Maintaining trees and woodlands for the enjoyment of future generations, and
- As previously mentioned, enhancing property values, thus supporting/increasing property tax revenues.

¹⁷ Calaveras County. 2007. *Voluntary Oak Woodland Management Plan*. Available at: http://www.co.calaveras.ca.us/cc/Portals/0/Dept/EMA/AgDep/Pub/Oak_Woodland_Management_Plan.pdf.