

El Dorado County General Plan EIR
Biological Resources
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County Planning Issues

Conservation of Oaks and Other Hardwoods

There is currently a great deal of concern about the protection of oaks and other hardwoods in California (Harris and Kocher 2002). This concern arises primarily from the rapid rate of urban development, and the habitat removal that accompanies it, in the foothills of California where oaks and hardwood habitats are predominantly found. In addition to the removal and degradation of existing oak woodlands, the rate of regeneration is a concern, as several oak species are not regenerating adequately to ensure their long-term survival (Bolsinger 1988).

Mitigating the loss of oak woodland can be problematic for local jurisdictions. Concerns about conserving the environmental value of oak woodland resources in the face of conversions to other land uses has led local planners to develop strategies to mitigate these effects. Many local conservation policies have attempted to mitigate the loss of oak woodland habitat resulting from conversion to urban or intensive agricultural land uses through tree planting. Many mitigation plans regularly call for tree planting on a replacement basis (1:1 to as high as 20:1) for trees lost (Standiford et al. 2002). Standiford, using a modeling approach to evaluate blue oak plantation development, found that average blue oaks were still quite small and that canopy cover was relatively low 50 years after being planted, even with a fairly aggressive restoration effort.

Another factor local jurisdictions must consider is the high cost of tree planting as a mitigation strategy. In some cases, it may be more cost effective to use the mitigation funds to ensure that existing mature habitat is conserved (Standiford et al. 2002). Although it may take many decades to replace mature habitat that is lost to a particular project, tree planting is still an important conservation tool and should still be encouraged as part of an overall restoration strategy (Standiford et al. 2002). Effective mitigation at a landscape scale, however, typically requires a more diverse array of options, including preservation of mature stands to compensate for the impact of woodland conversion projects.

Another study relevant to this analysis is that of Harris and Kocher (2002), which analyzed protection afforded oak woodlands under the 1996 General Plan. The study was completed at the request of the University of California and compared protection afforded oak woodlands in El Dorado, Placer, and Madera counties.

Harris and Kocher (2002) found that the 1996 General Plan policies were not effective at adequately protecting oak woodlands and that mitigation requirements in the 1996 General Plan EIR were ineffective at mitigating the loss associated with urban development. They also questioned the practice of planting to mitigate oak tree impacts. Site reviews revealed that oak trees were inappropriately planted underneath existing woodlands, in road median stripes, along property lines, and on cut-and-fill slopes. These plantings were often aimed at mitigating losses of stands or groves but seldom met that objective from an ecological standpoint. Additionally, Harris and Kocher concluded that offsite planting, in general, is constrained by the availability of suitable planting sites.