

Appendix B

Conservation Fund In-Lieu Fee Mitigation

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Appendix B
Conservation Fund In-Lieu Fee Mitigation

1. INTRODUCTION

The purpose of this Appendix report is to describe the development of the Conservation Fund In-Lieu Fee mitigation which meets the requirements of 2004 El Dorado County General Plan Policy 7.4.4.4, which specifies an Option B Mitigation Fee. The intent of the Option B mitigation fee is to provide compensation for impacts resulting from the loss of habitat and fragmentation of oak woodlands due to development. In order to describe the development of the fee, and the foundation for the 2:1 mitigation ratio, it is essential to understand the history of oak woodland mitigation measures developed during the completion of the 2004 General Plan EIR and General Plan.

The El Dorado County Board of Supervisors adopted the previous County General Plan in 1996. The Draft Environmental Impact Report (DEIR) of the 1996 General Plan was subject to a legal challenge over the proposed changes in land use, traffic congestion, water resources, and the oak woodland canopy (*El Dorado County Taxpayers for Quality Growth et al. v. El Dorado County Board of Supervisors et al.* – Case No. 96 CS 01290). The challenge alleged that the DEIR's canopy cover retention standards did not adequately address impacts to the oak woodland canopy. The basis for woodland conservation in the County under the 1996 General Plan was oak canopy retention and open-space policies. The canopy retention standards applied to discretionary projects involving parcels with an oak woodland canopy cover of at least ten percent (EDAW, 2003, Page 5.12-40). In addition, the practice of planting to mitigate oak trees proved problematic, since trees were inappropriately planted on-site and there have been few opportunities to assess how oak woodland habitats develop over time from areas planted (EDAW, 2003, Page 5.12-31). In 1999, the Sacramento County Superior Court issued a Writ of Mandate that ruled the 1996 General Plan DEIR deficient and placed a moratorium on development in the county until another General Plan could be adopted.

In response to the 1999 Writ of Mandate, the County adopted a new General Plan and certified an EIR for the General Plan in July 2004. A Motion for Review of County's Return to the Writ was subsequently filed with the Superior Court in August 2005. The Court ruled that the County went well beyond the direction of the 1999 Writ by providing an alternative to the retention requirements in the form of compensatory funding (Court Ruling, Page 5).

This alternative funding is found in the 2004 El Dorado County General Plan Policy 7.4.4.4, which specifies an Option B Mitigation Funding in lieu of replacement and retention requirements of Option A. The full text of Option B reads 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 preservation ratio shall be 2:1 and based on the total woodland acreage onsite directly impacted by habitat loss and indirectly impacted by habitat fragmentation. The costs associated with acquisition, restoration, and management of the habitat protected shall be included in the mitigation fee. Impacts on woodland habitat and

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mitigation requirements shall be addressed in a Biological Resources Study and Important Habitat Mitigation Plan as described in Policy 7.4.2.8.”

2. CONSERVATION FUND IN-LIEU FEE METHODOLOGY

A series of steps and analyses were applied to document and develop the fee, which accounts for the full cost of mitigation, including acquisition, monitoring, and management. The steps to develop the fee included the following:

- Clarification of the Option B Mitigation Ratio Policy, including defining full mitigation as it applies to the fee, and clarifying the mitigation ratio of 2:1;
- Identification of Potential Mitigation Alternatives for Acquisition, Restoration, Management and Monitoring;
- Evaluation of mitigation alternatives and development of specific alternative fee strategies;
- Estimating the costs (and fee) of acquiring, restoring and managing oak woodlands; and
- Methods for annual adjustments to the fee.

Each of these steps is described in this appendix.

3. CLARIFICATION OF OPTION B MITIGATION RATIO

Mitigation is required for impacts resulting from the loss of habitat and fragmentation of oak woodlands due to development. The Option B policy states that compensation be applied to oak woodlands “...*directly impacted by habitat loss and indirectly impacted by habitat fragmentation. The costs associated with acquisition, restoration, and management of the habitat protected shall be included in the mitigation fee.*” Option B further references General Plan Policy 7.4.2.8, which relates to the Integrated Natural Resources Management Plan (INRMP) conservation fund. Subsection C of Policy 7.4.2.8 describes that a program be established “...*to facilitate mitigation of impacts to biological resources resulting from projects approved by the County that are unable to avoid impacts on important habitats.*” For the OWMP to be consistent with the INRMP, mitigation needs to address, at a minimum, the biological resources associated with oak woodland habitats.

As contained in the Option B policy, full mitigation for the impacts is expressed at a 2:1 compensatory fee ratio. However, the policy does not make clear how this ratio is applied, whether using a unit measurement (e.g., per tree, per acre, dbh, etc.) or basing it on a valuation or performance measurement (e.g., canopy cover) approach. The next section provides research into the clarification of the mitigation fee ratio.

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HISTORIC REFERENCE AND CLARIFICATION OF OPTION B MITIGATION FEE RATIO

This section reviews the history of the County’s Option B mitigation fee ratio policy as described in the 2004 General Plan/DEIR, the CEQA Statement of Overriding Considerations, and the Motion for Review of County’s Return to Writ of Mandate-Ruling. The intent of the mitigation ratio policy is to provide compensation for impacts resulting from the loss of habitat and fragmentation of oak woodlands due to development. The mitigation ratio policy is included in the Oak Woodland Management Plan (OWMP), which serves as the “oak woodland portion” of the Integrated Natural Resources Management Plan (INRMP) in accordance with General Plan Policy 7.4.2.8, General Plan Implementation Measure CO-P, and implementing Option B of General Plan Policy 7.4.4.4 (i.e., oak tree mitigation fees).

REGULATORY GUIDANCE & POLICY

As described earlier, regulatory guidance for the OWMP is derived from several sources. At the State level, SB1334 (Kuehl) (codified as PRC §21083.4) addresses the issue of oak woodlands’ environmental impacts under CEQA and provides a list of acceptable mitigation measures including, but not limited to, new plantings, conservation, and funding to the Oak Woodlands Conservation Fund.

On the local level, the policies of the 2004 General Plan and DEIR reflect the County’s commitment to providing an in-lieu payment alternative as noted in the Court Ruling. The related General Plan policies and measures are summarized in the following table:

The 2004 General Plan DEIR contains analyses of impacts to oak woodlands and provides mitigation measures. The mitigation measures provide direction for policies contained in the Conservation and Open Space Element of the General Plan and for the development of an INRMP. General Plan Policy 7.4.4.4 of the Conservation and Open Space Element presents two mitigation alternatives including Option B, which allows for an in-lieu contribution to a conservation fund at a 2:1 ratio. However, none of the policies and measures referenced above provides a clear interpretation or methodology of the mitigation ratio.

POSSIBLE RATIONALE FOR THE MITIGATION RATIO METHODOLOGY

Neither the DEIR nor the General Plan directly contains a particular methodology for how the 2:1 ratio was formulated. Nevertheless, a *possible* rationale for determining such a ratio is found in the DEIR. The DEIR states, “As with policies in the Conservation and Open Space Element, much of the focus of the measures in the implementation program is on identification of important biological resources and reduction of impacts on those resources.” “Given the amount of habitat that is expected to be removed and fragmented by 2025, a substantial amount of compensatory mitigation (e.g., habitat purchased by the County to be preserved in perpetuity) would be needed in addition to avoidance and

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minimization measures to reduce this impact to a less-than-significant threshold” (EDAW, 2003, Page 5.12-48). Therefore, it appears that the 2:1 ratio was derived in large part to provide sufficient funding for the Conservation Fund to implement mitigation that would reduce impact from General Plan implementation to less than significant levels.

ATTEMPTS TO CLARIFY THE MITIGATION RATIO

Further attempts to clarify the mitigation ratio as reflected in the 2004 General Plan/DEIR, Master Responses to Comments of the 2004 General Plan, the CEQA Statement of Overriding Considerations, and the Motion for Review of County’s Return to Writ of Mandate-Ruling are presented below:

2004 El Dorado County General Plan

The most specific reference to the mitigation ratio found in the General Plan is expressed in Option B of Policy 7.4.4.4. The full text of Option B reads 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 preservation ratio shall be 2:1 and based on the total woodland acreage onsite directly impacted by habitat loss and indirectly impacted by habitat fragmentation. 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.

The General Plan policy, derived from Mitigation Measure 5.12-1(f) in the DEIR, calls for compensation for habitat loss and fragmentation at a 2:1 ratio. This ratio is based upon the total woodland acreage onsite directly impacted by habitat loss and indirectly impacted by habitat fragmentation. While the policy does not offer any clear interpretation of how the impacted woodland acreage would be assessed at the 2:1 ratio, an assumption could be made that the mitigation fees paid could reflect double the costs associated with acquisition, restoration, and management of habitat.

Master Responses to Comments of the 2004 General Plan

A number of comments to the General Plan addressed the issue of oak tree canopy protection and related policies and mitigation measures proposed in the DEIR. Master Response #18 included specific statements about Option B. The response stated that the intent of this option is “to preserve (through acquisition or conservation easements) existing woodlands of equal or greater biological value as those lost.” The response goes on to include that “Option B... is designed to facilitate the preservation of larger blocks

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of contiguous habitat, generating at least twice as much funding for habitat protection as Option A.” This appears to indicate that the mitigation ratio is designed to achieve a substantial amount of compensatory mitigation given the amount of habitat that is expected to be removed and fragmented in the future.

Motion for Review of Return to Writ of Mandate

The Sacramento County Superior Court affirmed PRC Section 21083.4(b) (3), which allows for the establishment of mitigation fees for oak woodland habitat preservation. *The Motion for Review of County’s Return to Writ of Mandate - Ruling* (Superior Court of California, County of Sacramento dated August 31, 2005) found that “*the current DEIR proposed an alternative to the retention requirements, ‘Option B’, which allows the County to require a project applicant to provide funding for woodland preservation in lieu of on-site canopy retention. The preservation would be at 2:1 ratio and would allow the County to pool funds and apply them towards acquisition and restoration projects that would preserve larger contiguous blocks of habitat*” (Court Ruling, Page 5).

The Court Ruling upholds the General Plan’s policy of establishing an in-lieu mitigation fee as reflected in Option B of Policy 7.4.4.4. Like the General Plan, the Court Ruling references the 2:1 mitigation ratio and describes the intent of the ratio as a means to fund habitat acquisition and restoration projects. However, the ruling does not offer any specific interpretation of the ratio.

CEQA Statement of Overriding Considerations

The CEQA Statement of Overriding Considerations associated with the adoption of the 2004 General Plan does not directly mention the 2:1 mitigation ratio. Under Environmental and Biological Considerations section, it does refer to “standards for development and implementation of countywide Integrated Natural Resources Management Plan” and “minimum mitigation ratios for loss of important biological habitat.” However, this document does not offer any further direction or interpretation of the mitigation policy.

In sum, both the 2004 General Plan/DEIR and the Court Ruling provide policy direction for the implementation of the 2:1 mitigation ratio, which would include funding for habitat acquisition, restoration, and management. The CEQA Statement of Overriding Considerations only refers to a minimum mitigation ratio for loss of habitat without referencing a specific compensatory ratio. None of the aforementioned sources provides a clear interpretation of the mitigation ratio.

CONCLUSION

The County of El Dorado has established policies in its 2004 General Plan that not only address the retention and replacement of oak woodlands, but which also direct the establishment of a compensation fund based upon a 2:1 mitigation ratio. Option B references the mitigation ratio in terms of total acreage impacted on-site, but does not

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offer a clear interpretation of how such impacts would be assessed for the purposes of determining a mitigation fee structure. The findings contend that the project proponent would compensate for the full costs of mitigation based upon the total impacted acreage (direct and indirect) and the costs associated with the acquisition, restoration, management and monitoring of oak woodland habitat. For consistency with the General Plan language, the implementation of the fee would be based on total acreage impacted on-site, with the fee structured on a per acre basis. For each acre of oak woodland that is lost, the mitigation ratio of 2:1 would require payment of twice the fee per acre.

4. ACQUISITION AND MANAGEMENT ALTERNATIVES

There are a number of potential alternatives for acquiring and managing oak woodlands. Primary mechanisms for acquiring lands are to either gain control of land outright through fee title, or to restrict the use of land that remains in private ownership through voluntary conservation easement. In either case, the purpose of acquisition is to preserve land in perpetuity for conservation from willing sellers.

Management activities help to ensure the viability of the land to support oak tree growth and habitat functions. Depending on the existing condition of the land, the purpose and intensity of uses, and habitat quality, different levels of management would be needed. Activities include biological surveys, weed control, and fuels treatment.

Monitoring involves determining the on-going success of the off-site mitigation sites. Monitoring activities include annual field visits, photo documentation, tracking of oak tree mortality rates, and database management.

5. COSTS OF THE MITIGATION PROGRAM

The costs for acquisition and management of oak woodlands were estimated using information from a variety of sources, including research by institutions such as the UC Integrated Hardwood Range Management Program (IHRMP); existing habitat conservation fee programs implemented by local jurisdictions; discussions with local land trusts including the American River Conservancy (ARC) that manage conservation easements; case studies compiled by the Center for Natural Lands Management; and land sales data provided by the El Dorado County Assessor. The information obtained assisted with developing the estimated costs for each mitigation component (acquisition, management and monitoring).

A cost spreadsheet model was developed that incorporates the cost for each program element. The spreadsheet model is an adaptation of the Property Analysis Record (PAR) model developed by Center for Natural Lands Management, which is an industry accepted tool to derive mitigation costs that are applicable to the mitigation site. The model divides the cost variables into those costs that are considered initial capital costs (one time), and those that are considered on-going (annual) costs. The annual costs are

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dependent on the frequency or regularity of the on-going activities (e.g., annual monitoring versus less than annual monitoring).

There are key considerations and program cost assumptions that provide the underpinnings for the oak woodlands mitigation fee. They are listed below:

Key Oak Woodlands Program Considerations

- Provide compliance flexibility by allowing affected landowners to contribute to the offsite mitigation fund or to meet mitigation requirements by preserving comparable habitat.
- Designate areas for preservation or conservation of oak woodlands with high biological value.
- Establish an endowment that provides for on-going management/monitoring of mitigation sites. The endowment would ensure funds are available in perpetuity (assuming a minimum investment rate of return) for these activities and that inflation cost adjustments are accounted for.

Program Costs And Fee Development Assumptions

- Basic fee unit: acreage.
- Cost categories for management include: biotic surveys; noxious weed control; and fuels treatment.
- Cost categories for monitoring include: site monitoring and field reporting; office and field equipment cost allocation, and endowment processing.
- Contingency and administrative overhead expressed as percentages of total costs (e.g., 10% for contingency and 15% for administration).
- Actual land sales data within rural county properties provided by the County Assessor's Office..
- Conservation easement discount values assumed 80 percent of land values before the easement, based on recent transactions by ARC.
- Annual adjustment to the fee using appropriate indices, including changes in assessed land valuation recorded by the County Assessor, and wage rate changes in forestry and conservation related employment reported by the Federal Bureau of Labor Statistics (BLS) for California.

Total cost of the off-site mitigation program is based on the acreage that is designated as priority conservation area multiplied by the mitigation cost per acre.

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Model Inputs

The cost spreadsheet model includes certain types of costs that are associated with long term stewardship of conservation property. These costs include consideration of the elements in Table B-1.

Table B-1		
Costs Associated with Long Term Stewardship of Conservation Property		
Expenditure	Specification	Unit Type
Acquisition		
Conservation Easement	Parcel	Acre
Legal Contract and Review	Easement Contract	Item
Site Inspection, coordination between County & landowner	Preserve manager	Labor hours
Survey by Land Surveyor	Report & Map	Item
Appraisal	Report by MAI Certified Appraiser	Item
County Survey Map Processing	Government Services	Labor hours
Biotic Surveys		
Qualified Professional	Species Surveys	Labor hours
Project Management	Supervision/Coordination	Labor hours
Survey Equipment	Equipment	Item
Habitat Management		
Weed Control	Herbicide Treatment	Labor hours
Fuels Treatment	Fuels Treatment Activities	Acre
Reporting/Monitoring		
Database Management	Report	Labor hours
Aerial Photos	Photos	Item
Photo documentation	Field Survey/Site Evaluation	Labor hours
Office Maintenance		
Office Equipment/Computers	Desktop Computer Allocation	Item
Field Equipment		
Vehicle	Fuel & Maintenance	Mileage
Binoculars	Binoculars	Item
Operations		
Endowment	Process Endowment	Labor hours

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Costs for management activities take into account such factors as the estimated hours of labor to provide the service, as well as an allocation of the use of a piece of equipment. For example, the cost of field and office equipment can be shared over a given number of mitigation projects. Therefore, only a marginal cost is applied to any single project. Hours of labor are estimated from case studies of other habitat conservation efforts and from discussions with local land trusts including ARC.

Cost of mitigation includes annual site monitoring. The cost model annualizes costs for activities that are undertaken at given intervals, such as every year, every 5 years, 10 years, etc. For example, an activity that costs \$100 and is conducted every 5 years will have an annual cost of \$20 in the model.

Fuels treatment needs to be a cost component of oak woodland acquisition if the desire is to sustain the oak woodland landscape. According to the USDA Forest Service, wildfires are the largest single causal agent in changing oak woodlands in the Sierra Nevada foothills. Fuels treatments in oak savannah landscapes that have been and will continue to be heavily grazed could cost as little as \$425 per acre for prescribed burning. On steep slopes along the rivers and on lands that have high fuel loading, the costs can easily exceed \$4,500 per acre. Treatment on these lands will involve a variety of techniques such as mastication, hand treatments, animal grazing, and prescribed burning. To minimize risk of intense stand killing fires, fuel treatment measures need to be repeated approximately every 10-15 years. No endowment has been established for these expected treatments because of the uncertainty of which lands will be acquired. The need for follow up treatment and adjustments to the Option B fee for fuel treatment costs should be assessed during annual monitoring and reporting activities.

Because of all the uncertainties associated with the locations, type, and condition of conservation easement acquisitions, fuels treatment costs are estimated as being \$900 per acre.

Management costs are derived from case studies and provide estimated labor hours and itemized costs to provide these activities. To ensure that fee revenues are available to pay for on-going costs in perpetuity, an endowment fund was included in the monitoring cost. The endowment fund accounts for a substantial portion of the monitoring component of the fee because funding of the endowment must be sufficient to generate interest every year to avoid drawing down the principal investment to pay for on-going costs. In addition, the endowment must generate interest that is reinvested with the principal to account for future cost increases due to inflation. The assumed interest rate of return in the fee structure is six percent (3 percent allocated toward on-going costs, and 3 percent reinvested for inflation adjustment).

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To maintain flexibility in the implementation of the Option B program, costs were estimated separately for each mitigation component (acquisition, management and monitoring). This cost structure would enable an applicant to undertake certain mitigation activities on their own if they choose, and then pay only the remaining fee components. For example, the landowner/developer could acquire off-site land for mitigation, subject to County approval, in-lieu of paying the acquisition portion of the fee. The landowner/developer would then pay the County the balance of the fee for management and monitoring.

Summary of Costs/Fees

For a project proponent to compensate for the full costs of mitigation, the direct costs for the total impacted acreage plus the indirect costs associated with the acquisition, management, and monitoring of the replacement acreage must be taken into account. To be consistent with the General Plan, the fee is structured on a per acre basis. Table B-2 exhibits the (Policy 7.4.4.4 Option B) Conservation Fund In-Lieu Fee per acre. For each acre of oak canopy that is lost, the mitigation ratio of 2:1 would require payment of twice the fee per acre. For each acre of oak canopy removed, therefore, the project proponent would pay \$9,400 into the Conservation Fund.

Rural PCA Land Acquisition (Cost per Acre)

Table B-2	
CONSERVATION FUND IN-LIEU FEE	
	Cost Per Acre
Acquisition ¹	\$2,300
Management ²	\$1,200
Monitoring ³	\$1,200
Total Cost/Fee Per Acre	\$4,700

- (1) Assumes conservation easement on rural land acquisition of 125 acres which is the average parcel size within the PCAs. Acquisition costs include the easement land value (approximately \$1,800, or 40% discount value) and conveyance costs (legal contract, land survey, appraisal by a MAI certified appraiser, and County map processing)
- (2) Includes biological survey/baseline documentation, weed control and fuels treatment.
- (3) Includes endowment for on-going monitoring.
- (4) 10% Contingency and 15% administration costs added to each cost component.

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6. COST COMPONENTS OF THE IN-LIEU FEE MITIGATION PROGRAM

Fee Components.

Acquisition: Acquisition costs consist of the actual cost of the conservation easement; legal contract of the conservation easement; a site inspection; a survey by a land surveyor; an appraisal by a MAI certified appraiser; and County survey map processing.

Land values in the PCAs were estimated using actual sales data recorded by the County Assessor since January 2005. The Assessor provided sales data for more rural areas of the County and divided the data by various parcel size ranges. Provided that the average parcel size within the PCA is about 125 acres, with a median size of 84 acres, the Assessor's parcel range of between 60 acres and greater than 120 acres was used. The low and high values from this range were from \$3,000 to \$6,000 per acre, or an average of \$4,500 per acre.

Data on conservation easement values was collected from local area land trusts including the American River Conservancy, Amador Land Trust, Sacramento Valley Conservancy, Solano Land Trust, Yolo Land Trust, and Wildlife Heritage Foundation. ARC provided recent easement transaction information for parcels within the County, including within or near the PCA (along Rattlesnake Bar Road in Pilot Hill). The easement cost per acre for this recent transaction was about \$3,400, or 80 percent of the land value before the easement. The value and timing of other conservation easements held by ARC varied. Two very large easements along the Cosumnes River (Garibaldi Ranch 1,178 acres secured in year 2001, and Morales Ranch 1,815 acres secured in 2004) cost on average \$1,500 per acre. However, other smaller easements had a higher cost per acre (Chili Bar \$90,000 per acre for 4 acres in 2004, Williams \$7,600 per acre for 92 acres in December 2007, and Udvardy \$5,600 per acre for 96 acres in March 2007). Easement costs are driven by the zoning type and development potential on the property as valued by a qualified appraiser (MAI certified) for the purchase of the development rights. The parcels within the PCAs generally are zoned agriculture exclusive, and/or residential agriculture districts.

Some of the acquisition costs could be categorized more as flat rate costs per transaction. These include the legal contract for the easement (assuming no extraordinary circumstance), land survey and appraisal. However, to develop a per acre cost, these flat costs were divided by the average parcel size. Table B-3 exhibits the disaggregated Acquisition Fee component of the Conservation Fund in-lieu fee, both on a per acre basis and total cost for acquisition.

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Table B-3 ACQUISITION FEE COMPONENT Disaggregation per Acre (figures rounded to nearest whole dollar) (based on 125 acres)		Initial Cost
Conservation Easement Value	\$1,800	\$224,700
Legal Contract	\$8	\$1,000
Site Inspection	\$11	\$1,375
Survey by Land Surveyor	\$12	\$1,500
Appraisal	\$34	\$4,250
County Survey Map Processing	\$8	\$1,000
SUBTOTAL	\$1,873	\$233,825
10% contingency/15% administration	\$500	\$62,000
TOTAL	\$2,373	\$295,825
(rounded to):	\$2,300	

Management: Management costs consist of biotic surveys and baseline documentation, weed control and fuels management. A biotic survey in drafting conservation easements is necessary to establish the natural resource value and to establish a baseline condition of the property at the time of the conveyance. Fuels management lessens the risk of catastrophic wildfire, as vegetation removal and management keeps landowners, nearby residents, firefighters, and oak woodlands in a safer condition, which also reduces liability on the land trust and County. The average cost for fuels management is spread on a per acre basis; however, the degree of treatment could vary. The Conservation Fund in-lieu fee assumes a one time fuels treatment application cost, with no assumed recurring costs.¹ Table B-4 exhibits the disaggregated Management Fee component of the Conservation Fund in-lieu fee.

Table B-4 MANAGEMENT FEE COMPONENT Disaggregation per Acre (figures rounded to nearest whole dollar) (based on 125 acres)		Initial Cost
Qualified Professional	\$32	\$4,000
Project Management	\$11	\$1,375
Survey Equipment	\$1	\$125
Weed Control	\$14	\$1,750
Fuels Treatment*	\$900	\$112,400
SUBTOTAL	\$957	\$119,650
10% contingency/15% administration	\$300	\$31,700
TOTAL	\$1,257	\$151,350

¹ An adaptive management program assumes recurring fuels management perhaps every 10 to 15 years. To help address this issue, the contingency component of the Monitoring Fee Component is already included in the fee and would grow along with the endowment to help offset additional fuels treatment costs.

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(rounded to):	\$1,200
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* Cost for fuels treatment based on the following activities: prescribed burning, mastication, pruning, and fuel breaks within PCAs.

Monitoring: Monitoring costs consist of site monitoring, reporting, and endowment processing. Monitoring and reporting include database management, aerial photos, and photo documentation. Land trusts monitor their conservation easements to ensure long-term protection of the resource. Land trusts assume the legal obligation to carry out the donor’s desires by upholding the terms of the easement in perpetuity. In order to carry out these on-going liabilities, an endowment is necessary for easement upkeep. Table B-5 exhibits the disaggregated Monitoring Fee component of the Conservation Fund in-lieu fee.

Table B-5		Initial Cost
MONITORING FEE COMPONENT		
Disaggregation per Acre		
(figures rounded to nearest whole dollar)		
(based on 125 acres)		
Endowment	\$ 1,131	\$ 141,375
Database Management/ Reporting	\$ 7	\$ 875
Aerial Photos	\$ 8	\$1,000
Photo Documentation	\$ 6	\$ 750
Office Equip./Computers	\$ 1	\$ 125
Vehicle	\$ 1	\$ 125
Binoculars	\$1	\$ 125
Endowment Processing	\$ 5	\$ 625
SUBTOTAL	\$ 1,160	\$ 145,000
10% contingency/ 15% administration (excluding endowment)	\$ 8	\$ 1,000
TOTAL	\$ 1,168	\$ 146,000
(rounded to):	\$ 1,200	

Total Cost/Fee per Acre: The total cost/fee per acre includes 10% contingency and 15% administrative costs (overhead and administration of the land trust and County management and oversight cost), which are built into the individual cost components. The percentages are typical standards in the PAR model.

Endowment and Adjustments:

An endowment for on-going monitoring is necessary to ensure County compliance on both project and County-wide levels.

Adjustments to the fee in future years would need to be made to account for expected cost increases to acquire land and for land management activities. The land acquisition fee, for instance, would be adjusted based on the annual or five-year change in land value for property uses similar to those in the PCAs recorded by the County Assessor’s Office,

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using the Assessor’s Property System Use Codes. Similar adjustments would need to be made for the other cost components of the fee.

7. ADJUSTMENTS TO THE FEE

As costs for off-site mitigation grow over time, there would be a need to adjust the fee to closely match future cost increases. Provided that the fee structure is divided among the mitigation components (acquisition, management and monitoring), adjustments can be made according to appropriate measures that pertain to each of the components. For instance, the acquisition portion of the fee can be adjusted annually by the year-to-year change (or five or ten-year average change) in assessed valuation of County land as recorded by the County Assessor using the Property System Use Codes. Land uses excluded from the OWMP (e.g., commercial/industrial, community regions and rural centers, and low density residential) would not be included in the assessed valuation determination. According to the County Assessor data, from 1996 through 2006, total assessed land valuation for rural residential and farmland security zones increased on average by seven percent per year over the past ten years, and by nine percent over the past five years (2001 through 2006). The table below shows the change in assessed valuation for rural residential and farmland security zones.

**Table B-6: Assessed Valuation for Rural Residential and Farmland Security Zones
1996 – 2006**

Year	Valuation	Percent Change
1996	1,192,722,423	
1997	1,213,220,701	2%
1998	1,240,161,432	2%
1999	1,287,669,871	4%
2000	1,345,818,292	5%
2001	1,438,363,826	7%
2002	1,505,076,338	5%
2003	1,626,184,599	8%
2004	1,725,828,197	6%
2005	1,992,765,153	15%
2006	2,236,419,067	12%
Avg.		7%

Notes: Total valuation using Assessor Property System Use Codes 21-26, and 55.

Source: El Dorado County Assessor

Adjustments to the management and monitoring fees can be made according to the change in the State’s mean wage rate for forestry and conservation related employment

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reported by the BLS. Provided that on-going management and monitoring costs are generally labor driven, changes in wage rates is an appropriate measure for the fees.

Five forestry and conservation related occupations reported by the BLS are identified and can be tracked for the change in wages for these occupations. The occupations include: Conservation scientists; Foresters; Forest and conservation technicians; First-line supervisors/managers of forestry workers; and Forest and conservation workers. According to BLS data specific to California, from 2000 through 2006, the average change in wages for these occupations was 2.2 percent per year.² The table below shows the change in wages for these related professions.

Table B-7: Change in Wage Rates for Forestry and Conservation Related Employment 2000 - 2006

Conservation Scientists			
Occupational Code 19-1031			
Year	Hourly Wage	Salary	% Change
2000	\$ 26.45	\$ 55,010	
2001	\$ 26.67	\$ 55,470	0.8%
2002	\$ 27.01	\$ 56,180	1.3%
2003	\$ 27.74	\$ 57,700	2.7%
2004	\$ 28.71	\$ 59,720	3.5%
2005	\$ 30.74	\$ 63,930	7.0%
2006	\$ 31.43	\$ 65,370	<u>2.3%</u>
Average			2.9%

Foresters			
Occupational Code 19-1032			
Year	Hourly Wage	Salary	% Change
2000	\$ 24.79	\$ 51,570	
2001	\$ 25.80	\$ 53,660	4.1%
2002	\$ 25.67	\$ 53,390	-0.5%
2003	\$ 27.71	\$ 57,640	8.0%
2004	\$ 28.69	\$ 59,670	3.5%
2005	\$ 23.16	\$ 48,160	-19.3%
2006	\$ 26.83	\$ 55,810	<u>15.9%</u>
Average			1.9%

Forest and Conservation Technicians			
Occupational Code 19-4093			

² The BLS contains separate wage data for Natural Scientists located in the Sacramento/Yolo area. However, this occupational heading is broad and does not specifically reflect forestry and conservation related professions.

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Year	Hourly Wage	Salary	% Change
2000	\$ 15.51	\$ 32,260	
2001	\$ 15.88	\$ 33,040	2.4%
2002	\$ 15.92	\$ 33,110	0.2%
2003	\$ 14.01	\$ 29,140	-12.0%
2004	\$ 14.77	\$ 30,720	5.4%
2005	\$ 15.21	\$ 31,640	3.0%
2006	\$ 16.93	\$ 35,220	<u>11.3%</u>
Average			1.7%

First-Line Supervisors/Managers of Farming, Fishing, and Forestry Workers			
Occupational Code 45-1011			
Year	Hourly Wage	Salary	% Change
2000	\$ 16.49	\$ 34,300	
2001	\$ 16.71	\$ 34,750	1.3%
2002	\$ 16.86	\$ 35,070	0.9%
2003	\$ 17.15	\$ 35,670	1.7%
2004	\$ 16.62	\$ 34,570	-3.1%
2005	\$ 15.62	\$ 32,490	-6.0%
2006	\$ 15.99	\$ 33,270	<u>2.4%</u>
Average			-0.5%

Forest and Conservation Workers			
Occupational Code 45-4011			
Year	Hourly Wage	Salary	% Change
2000	\$ 8.30	\$ 17,270	
2001	\$ 9.46	\$ 19,670	13.9%
2002	\$ 9.88	\$ 20,540	4.4%
2003	\$ 10.24	\$ 21,290	3.7%
2004	\$ 10.72	\$ 22,300	4.7%
2005	\$ 11.05	\$ 22,980	3.0%
2006	\$ 10.93	\$ 22,730	<u>-1.1%</u>
Average			4.8%

Average Wage Growth of All Occupations: 2.2%

Source: Federal Bureau of Labor Statistics (BLS).

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Appendix B Exhibits

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Estimated Cost of Conservation Easement within PCAs

Expenditure	Specification	Unit Type	Unit Count	Unit Cost	Initial & Capital Years	Initial & Capital Costs	Ongoing Years	Ongoing Costs
Acquisition								
Conservation Easement	Parcel	Acre	125	\$1,800	1	\$224,754	0	\$0
Legal Contract and Review	Easement Contract	Item	1	\$1,000	1	\$1,000	0	\$0
Site Inspection, coordination between County & landowner	Preserve Manager	L. hours	16	\$85	1	\$1,360	0	\$0
Survey by Land Surveyor	Report & Map	Item	1	\$1,500	1	\$1,500	0	\$0
Appraisal	Report by MAI Certified Appraiser	Item	1	\$4,250	1	\$4,250	0	\$0
County Survey Map Processing	Government Services	L. Hours	12	\$80	1	\$960	0	\$0
Biological Surveys/Baseline Documentation								
Qualified Professional	Species Surveys	L. Hours	50	\$80	1	\$4,000	10	\$400
Project Management	Supervision/Coordination	L. Hours	16	\$85	1	\$1,360	10	\$136
Survey Equipment	Equipment	Item	0.1	\$1,000	1	\$100	10	\$10
Habitat Maintenance								
Weed Control	Herbicide Treatment	L. Hours	50	\$35	1	\$1,750	5	\$350
Fuels Treatment	Fuels Treatment	Acre	125	\$900	1	\$112,377	0	\$0
Reporting/Monitoring								
Database Management/Reporting	Report	L. Hours	24	\$35	1	\$840	1	\$840
Aerial Photos	Photos	Item	1	\$1,000	1	\$1,000	5	\$200
Photodocumentation	Field Survey/Site Evaluation	L. Hours	20	\$35.00	1	\$700	1	\$700
Office Maintenance								
Office Equipment/Computers	Computer, printer, materials	Item	0.1	\$1,500	1	\$150	5	\$30
Field Equipment								
Vehicle	Fuel & Maintenance	Mileage	150	\$0.50	1	\$75	1	\$75
Binoculars	Binoculars	Item	0.1	\$400	1	\$40	5	\$8
Operations								
Endowment	Process/Administer Endowment	L. hours	20	\$30	1	\$600	1	\$600
Subtotal Conservation Easement						\$356,817		\$3,349
Contingency @ 10%						\$35,682		\$335
Administration @ 15%						\$58,875		\$553
Total Conservation Easement						\$451,373		\$4,236
Total Conservation Easement per Acre						\$3,615		\$34

Endowment Amount

Endowment Amount	\$141,216	\$1,131	Cost/acre
Capitalization Rate	3.0%		
Inflation	3.0%		
Investment Return	6.0%		
	Year 1 (After Funding)	Per Acre	
Starting endowment	\$141,216	\$1,131	
Investment Earnings	\$8,473	\$68	
Annual expenditure	\$4,236	\$34	
Inflation re-invested into endowment	\$4,236	\$34	
Ending endowment balance	\$145,453	\$1,165	

Assumptions: Capitalization Rate is investment return less inflation.

Fee Per Acre for Conservation Easement (rounded)	\$4,700
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Notes:

Assumes 125 acres per transaction, based on average parcel size within PCAs.

Rural land prices based on Assessor's recorded parcel sales for parcel size ranges between 60 and greater than 120 acres.

Conservation Easement discount factor is 40% of value before easement, based on recent purchase transactions undertaken by ARC.

10% Contingency and 15% Administration Cost applied to all direct costs.

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