

Multi-media Education and Outreach Program for the Ecosystem Restoration Program

Project Information

1. Proposal Title:

Multi-media Education and Outreach Program for the Ecosystem Restoration Program

2. Proposal applicants:

Judy Irving, Pelican Media
Jud Monroe, Independent Consultant
Larry La Com, Independent Consultant
G. Mathias Kondolf, UC Berkeley
Charles Hanson, Hanson Environmental
Tom Taylor, Independent Consultant
Peter Vorster, The Bay Institute
John Cain, Natural Heritage Institute

3. Corresponding Contact Person:

Judy Irving
Pelican Media
1736 Stockton Street, #2 San Francisco, CA 94123 USA
415 362-2420
pelicanmedia@earthlink.net

4. Project Keywords:

Environmental Education
Land Use Management, Planning, and Zoning
Restoration Ecology

5. Type of project:

Education

6. Does the project involve land acquisition, either in fee or through a conservation easement?

No

7. Topic Area:

Environmental Education

8. Type of applicant:

Private non-profit

9. Location - GIS coordinates:

Latitude:

Longitude:

Datum:

Describe project location using information such as water bodies, river miles, road intersections, landmarks, and size in acres.

Not applicable

10. Location - Ecozone:

Code 15: Landscape

11. Location - County:

Butte, Calaveras, Colusa, Contra Costa, Fresno, Kern, Kings, Lake, Madera, Mariposa, Merced, Placer, Sacramento, San Francisco, San Joaquin, Santa Clara, Shasta, Solano, Stanislaus, Sutter, Tehama, Trinity, Tulare, Yolo, Yuba

12. Location - City:

Does your project fall within a city jurisdiction?

No

13. Location - Tribal Lands:

Does your project fall on or adjacent to tribal lands?

No

14. Location - Congressional District:

Not applicable

15. Location:

California State Senate District Number: Not applicable

California Assembly District Number: Not applicable

16. How many years of funding are you requesting?

2

17. Requested Funds:

a) Are your overhead rates different depending on whether funds are state or federal?

No

If no, list single overhead rate and total requested funds:

Single Overhead Rate: 7.5%

Total Requested Funds: \$600,007

b) Do you have cost share partners already identified?

No

c) Do you have potential cost share partners?

Yes

If yes, list partners and amount contributed by each:

San Francisco Foundation potential: \$16,125

d) Are you specifically seeking non-federal cost share funds through this solicitation?

No

If the total non-federal cost share funds requested above does not match the total state funds requested in 17a, please explain the difference:

18. Is this proposal for next-phase funding of an ongoing project funded by CALFED?

No

Have you previously received funding from CALFED for other projects not listed above?

Yes

If yes, identify project number(s), title(s) and CALFED program.

99-B24 Traveling Environmental Film Festival & Exhibit Environmental Education

01-N36 Film Festival & San Joaquin River documentary Environmental Education

19. **Is this proposal for next-phase funding of an ongoing project funded by CVPIA?**

No

Have you previously received funding from CVPIA for other projects not listed above?

No

20. **Is this proposal for next-phase funding of an ongoing project funded by an entity other than CALFED or CVPIA?**

No

Please list suggested reviewers for your proposal. (optional)

21. **Comments:**

Environmental Compliance Checklist

Multi-media Education and Outreach Program for the Ecosystem Restoration Program

1. CEQA or NEPA Compliance

a) Will this project require compliance with CEQA?

No

b) Will this project require compliance with NEPA?

No

c) If neither CEQA or NEPA compliance is required, please explain why compliance is not required for the actions in this proposal.

This is an educational program and no environmental impacts are anticipated.

2. If the project will require CEQA and/or NEPA compliance, identify the lead agency(ies). If not applicable, put "None".

CEQA Lead Agency: None

NEPA Lead Agency (or co-lead:) None

NEPA Co-Lead Agency (if applicable): None

3. Please check which type of CEQA/NEPA documentation is anticipated.

CEQA

-Categorical Exemption

-Negative Declaration or Mitigated Negative Declaration

-EIR

Xnone

NEPA

-Categorical Exclusion

-Environmental Assessment/FONSI

-EIS

Xnone

If you anticipate relying on either the Categorical Exemption or Categorical Exclusion for this project, please specifically identify the exemption and/or exclusion that you believe covers this project.

4. CEQA/NEPA Process

a) Is the CEQA/NEPA process complete?

Not Applicable

b) If the CEQA/NEPA document has been completed, please list document name(s):

5. Environmental Permitting and Approvals (If a permit is not required, leave both Required? and Obtained? check boxes blank.)

LOCAL PERMITS AND APPROVALS

Conditional use permit

Variance

Subdivision Map Act

Grading Permit

General Plan Amendment

Specific Plan Approval

Rezone

Williamson Act Contract Cancellation

Other

STATE PERMITS AND APPROVALS

Scientific Collecting Permit

CESA Compliance: 2081

CESA Compliance: NCCP

1601/03

CWA 401 certification

Coastal Development Permit

Reclamation Board Approval

Notification of DPC or BCDC

Other

FEDERAL PERMITS AND APPROVALS

ESA Compliance Section 7 Consultation

ESA Compliance Section 10 Permit

Rivers and Harbors Act

CWA 404

Other

PERMISSION TO ACCESS PROPERTY

Permission to access city, county or other local agency land.

Agency Name:

Permission to access state land.

Agency Name:

Permission to access federal land.

Agency Name:

Permission to access private land.

Landowner Name:

6. Comments.

Land Use Checklist

Multi-media Education and Outreach Program for the Ecosystem Restoration Program

1. **Does the project involve land acquisition, either in fee or through a conservation easement?**

No

2. **Will the applicant require access across public or private property that the applicant does not own to accomplish the activities in the proposal?**

Yes

3. **Do the actions in the proposal involve physical changes in the land use?**

No

If you answered no to #3, explain what type of actions are involved in the proposal (i.e., research only, planning only).

The project involves access to on-going restoration projects being undertaken by others. Permission to film will be required and obtained from the project managers.

4. **Comments.**

This is an educational program and no land-use impacts are anticipated.

Conflict of Interest Checklist

Multi-media Education and Outreach Program for the Ecosystem Restoration Program

Please list below the full names and organizations of all individuals in the following categories:

- Applicants listed in the proposal who wrote the proposal, will be performing the tasks listed in the proposal or who will benefit financially if the proposal is funded.
- Subcontractors listed in the proposal who will perform some tasks listed in the proposal and will benefit financially if the proposal is funded.
- Individuals not listed in the proposal who helped with proposal development, for example by reviewing drafts, or by providing critical suggestions or ideas contained within the proposal.

The information provided on this form will be used to select appropriate and unbiased reviewers for your proposal.

Applicant(s):

Judy Irving, Pelican Media
Jud Monroe, Independent Consultant
Larry La Com, Independent Consultant
G. Mathias Kondolf, UC Berkeley
Charles Hanson, Hanson Environmental
Tom Taylor, Independent Consultant
Peter Vorster, The Bay Institute
John Cain, Natural Heritage Institute

Subcontractor(s):

Are specific subcontractors identified in this proposal? Yes

If yes, please list the name(s) and organization(s):

Mark Bittner Independent Production Manager

Pat Rickey Independent Composer

Sam Lehmer Independent Sound Engineer

None None

None None

None None

None None

Helped with proposal development:

Are there persons who helped with proposal development?

Yes

If yes, please list the name(s) and organization(s):

Gary Bobker The Bay Institute

Comments:

Pelican Media has a long-standing a relationship with Monaco Labs and has selected this lab for services due to this relationship and their consistently excellent rates. Printing estimates for the Handbook, Resource Guide, and Exhibits were solicited from a variety of firms. The firms indicated on Table 2 of the Proposal (All Valley Printing and Signs 2000) were selected based on quality and low bid.

Budget Summary

Multi-media Education and Outreach Program for the Ecosystem Restoration Program

Please provide a detailed budget for each year of requested funds, indicating on the form whether the indirect costs are based on the Federal overhead rate, State overhead rate, or are independent of fund source.

Independent of Fund Source

Year 1												
Task No.	Task Description	Direct Labor Hours	Salary (per year)	Benefits (per year)	Travel	Supplies & Expendables	Services or Consultants	Equipment	Other Direct Costs	Total Direct Costs	Indirect Costs	Total Cost
Phase I-A	Scoping	0	0	0	990	0	15,575	0	0	16565.0	1242	17807.00
Phase I-B	Case Studies Handbook and Film Pre-Production	0	0	0	11,910	4,800	148600	9,000	37,000	211310.0	15848	227158.00
Phase I-C	Exhibit Boards	0	0	0	1,590	0	8,800	0	4,900	15290.0	1147	16437.00
Phase I-D	Resources Guide	0	0	0	990	0	31,830	0	3,800	36620.0	2747	39367.00
Phase I-E	Film Treatment and Production Plan	0	0	0	300	0	14,960	0	0	15260.0	1145	16405.00
Phase I-F	Project Management	0	0	0	0	0	10,000	0	0	10000.0	750	10750.00
		0	0.00	0.00	15780.00	4800.00	229765.00	9000.00	45700.00	305045.00	22879.00	327924.00

Year 2												
Task No.	Task Description	Direct Labor Hours	Salary (per year)	Benefits (per year)	Travel	Supplies & Expendables	Services or Consultants	Equipment	Other Direct Costs	Total Direct Costs	Indirect Costs	Total Cost
Phase II	Film Production, Post-Production, and Distribution	0	0	0	8,400	15,250	189,250	22,700	2,500	238100.0	17,858	255958.00
Phase II-OPTIONAL	Optional Spanish Translation Allowance						15,000			15000.0	1125	16125.00
		0	0.00	0.00	8400.00	15250.00	204250.00	22700.00	2500.00	253100.00	18983.00	272083.00

Year 3												
Task No.	Task Description	Direct Labor Hours	Salary (per year)	Benefits (per year)	Travel	Supplies & Expendables	Services or Consultants	Equipment	Other Direct Costs	Total Direct Costs	Indirect Costs	Total Cost
		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Grand Total=600007.00

Comments.

Without optional Spanish translation, budget total is \$583,882. Pelican Media anticipates that transfer of funds from one category to another will be required to respond to a variety of factors, but these shifts

will be made within the overall budget total.

Budget Justification

Multi-media Education and Outreach Program for the Ecosystem Restoration Program

Direct Labor Hours. Provide estimated hours proposed for each individual.

Not Applicable. All participants are consultants.

Salary. Provide estimated rate of compensation proposed for each individual.

Not Applicable. All participants are consultants.

Benefits. Provide the overall benefit rate applicable to each category of employee proposed in the project.

Not Applicable. Consultants include benefits in their overall fees.

Travel. Provide purpose and estimate costs for all non-local travel.

Travel will be required to visit various project sites, interview restoration project managers, and shoot still and motion picture photography of restoration projects. Some non-local travel will be required to meet and confer with CALFED staff.

Supplies & Expendables. Indicate separately the amounts proposed for office, laboratory, computing, and field supplies.

Normal office supplies: \$1,000 Graphic Supplies: \$2,000 Film supplies: \$17,050

Services or Consultants. Identify the specific tasks for which these services would be used. Estimate amount of time required and the hourly or daily rate.

All project team members are independent consultants or consultants with nonprofit entities. All tasks except printing and film laboratory services will be performed by these consultants. Hours, by category, are: Filmmaker and project manager: Judy Irving: 1117 hours at \$100/hour Writer, editor, and co-project manager: Jud Monroe: 931 hours at \$100/hour Graphic Artist: Larry LaCom: 769 hours at \$100/hour Consulting Scientists: (Core team of 5 scientists): 597 hours at an average of \$95/hour Film Production Manager: Mark Bittner: 784 hours at \$50/hour Lab Services, Music Composition, Sound: \$36,500 (based on varying hourly rates and hours)

Equipment. Identify non-expendable personal property having a useful life of more than one (1) year and an acquisition cost of more than \$5,000 per unit. If fabrication of equipment is proposed, list parts and materials required for each, and show costs separately from the other items.

Equipment used will be leased through the sponsoring nonprofit organization, Pelican Media.

Project Management. Describe the specific costs associated with insuring accomplishment of a specific project, such as inspection of work in progress, validation of costs, report preparation, giving presentations, response to project specific questions and necessary costs directly associated with specific project oversight.

Judy Irving and Jud Monroe have included \$20,000 in the costs shown above for project management (200 hours at \$100/hour). Ms. Irving will be responsible for financial management. Dr. Monroe will prepare and give project progress reports, presentations, and will provide responses to all questions. The project co-managers anticipate spending approximately 500 total hours on project management tasks over the course of the project and will donate hours in excess of the specified project management time as part of their commitment to the project. Project management costs include final QA/QC on all work products, such as copy editing of print media products.

Other Direct Costs. Provide any other direct costs not already covered.

Other direct costs include the costs of publication of the Handbook, Resource Guide, and the Exhibit Boards (\$37,000, \$3,800, and \$4,900, respectively). An additional \$2,500 has been added during film production to cover unanticipated costs associated with filming and post-production.

Indirect Costs. Explain what is encompassed in the overhead rate (indirect costs). Overhead should include costs associated with general office requirements such as rent, phones, furniture, general office staff, etc., generally distributed by a predetermined percentage (or surcharge) of specific costs.

Indirect costs (overhead) have been calculated at 7.5% and cover all normal business expenses. All local and long-distance phone expenses attributable to the project are included as part of overhead as well (and will not be itemized).

Executive Summary

Multi-media Education and Outreach Program for the Ecosystem Restoration Program

CALFED's Ecosystem Restoration Program is based on a "think globally, act locally" strategy. This strategy, which applies to other restoration programs such as AFRP and CVPIA, requires local groups to develop and implement programs based on (a) a broad-scale ecological vision and (b) knowledge of how to plan and implement programs on a local scale that contribute to that vision. Local groups proposing such projects are made up of (a) local government planners, (b) community activists, and (c) local regulatory agency personnel. They very often lack senior scientific advisors or staff and/or practical experience in ecosystem restoration. These groups, and the general public which must be mobilized to support restoration, often do not understand ecosystem restoration concepts, or even the practical meaning of key terms used in the CALFED and other restoration documents. We propose to bridge the gap between regional ecosystem programs and the local community, by developing a program to translate ecosystem restoration into everyday terms. We propose a program based on case studies of high-priority, successful CALFED and other ecosystem restoration projects. The Two-Phase program will consist of five elements: Phase I A. An "Ecosystem Restoration Case Studies Handbook." The Handbook will describe and illustrate case studies and provide an analysis of how each project addressed key ecosystem restoration concepts. B. A "Resources Guide for Ecosystem Restoration." The Guide will provide references to other relevant materials which will be useful to those engaged in ecosystem restoration -- from technical books and articles to names and addresses of regional and local resource agencies, public interest groups, and educational resources. C. An "Ecosystem Restoration Exhibit." The Exhibit will consist of 7 display boards, each illustrating a key ecosystem restoration concept. D. A film treatment and pre-production plan for the documentary film described below. Phase II A half-hour broadcast-quality documentary film (working title "Natural Partners") highlighting three to four successful restoration projects in the Central Valley, focusing on projects which best capture the vision of ecosystem restoration as a win-win for people and wildlife. The handbook, resource guide, and film will be provided to CALFED for distribution to local planning groups, high schools, universities and colleges, and public interest groups at cost.

Proposal

Pelican Media

Multi-media Education and Outreach Program for the Ecosystem Restoration Program

Judy Irving, Pelican Media

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Multi-Media Education and Outreach Program for the Ecosystem Restoration Program

EXECUTIVE SUMMARY

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Phase I

1. An "Ecosystem Restoration Case Studies Handbook." The Handbook will describe and illustrate case studies and provide an analysis of how each project addressed key ecosystem restoration concepts.
2. A "Resources Guide for Ecosystem Restoration." The Guide will provide references to other relevant materials which will be useful to those engaged in ecosystem restoration -- from technical books and articles to names and addresses of regional and local resource agencies, public interest groups, and educational resources.
3. An "Ecosystem Restoration Exhibit." The Exhibit will consist of 5-7 display boards, each illustrating a key ecosystem restoration concept.
4. A film treatment and pre-production plan for the documentary film described below.

Phase II

A half-hour broadcast-quality documentary film (working title "Natural Partners") highlighting three to four successful restoration projects in the Central Valley, focusing on projects which best capture the vision of ecosystem restoration as a win-win for people and wildlife.

Pelican Media has included costs for working with a local Spanish-language television station to dub the film into Spanish, if such a station were to express interest in doing so.

DETAILED PROPOSAL

1. Problem

There is a growing body of scientific literature demonstrating that people of all ages have difficulty translating and applying conceptual thinking and scientific concepts to their own actions (Chin and Brown, 2000; Cobern WW, AT Gibson, and SA Underwood 1999). Science is a "way of knowing" the world that involves a high level of conceptualization and many people are simply not trained in the discipline of science. People understand and are able to apply concepts when they have engaged these at a specific-project level; most people understand examples, not concepts. They act when they have a tangible vision of what they want to do, when they are convinced by experience (theirs or others) that it is feasible, and when they have access to the tools and resources needed to do the job. In short, people build what they have seen built before; they do not act readily based on concept. They need a tangible vision.

CALFED and others engaged in ecosystem restoration in the Central Valley have admirably articulated a concept for ecosystem restoration and for organizing a program to implement this concept -- but at a highly conceptual level in standard scientific terminology. Local planning groups, which almost universally lack members with high-level ecosystem restoration experience and/or senior scientific experience, are faced with the difficult task of understanding the concepts that are the foundation for such programs and translating these concepts into action. These groups, consisting of local planners and managers, local activists, and local regulatory agency staff, often have no experience in addressing concepts critical to CALFED's success, such as "ecosystem functions and processes." Political leaders may also not understand how to address the win-win concepts of ecosystem restoration -- such as how to provide public services such as enhanced flood control, groundwater management, and recreation while providing for riparian restoration.

Such concepts, which are essential elements of CALFED's program documents, are sources of disagreement even within the conservation biology community. For example, CALFED agencies themselves are struggling to define the appropriate "scale" for a riverine meander corridor -- how wide does it need to be to provide the hypothesized benefits of overbank flow and dynamic stream migration? If these issues are confusing to

scientists and experienced regional planners, they are often a complete mystery to the uninitiated.

The goal of this educational program will be to translate the core ecosystem restoration concepts into tangible case studies and examples so that people without extensive background may at least understand and apply them to particular projects. Our objectives are:

- To translate the CALFED vision into film and written stories that will allow local planners, students, and the general public to understand the vision, how to accomplish the vision, and the tangible benefits of doing so.
- To provide case studies, based on interviews with those involved, of how other projects have addressed specific concepts (such as wildlife-friendly farming) and to demonstrate why people undertook projects, how they did them, and how the projects benefited both wildlife and their communities;
- To illustrate the step-by-step processes involved in turning such concepts into concrete projects; and
- To provide people unfamiliar with ecosystem restoration with access to resources -- books, films, instructions, and people with specific expertise, etc.

Our underlying hypothesis is that people learn concepts through experience -- often by hearing others talk about their experience and by watching other people do things. Then they apply this practical, down-to-earth experience to the problem they are trying to solve.

2. Justification

For many local planning groups, ecosystem restoration is an exercise in hands-on learning, often with a very long learning curve. Current models for learning through hands-on experience generally call for beginning with very small, simple projects (Linn and Clark 1997). This model is based on research that suggests that the conceptualization needed for complex scientific activities must be developed by well-guided experience over time.

Unless a long learning curve is provided, it is essential that relatively inexperienced restoration planners be aided through some form of mentoring. Mentors provide two things -- vision and access to experience. CALFED provides this to some extent by holding workshops and making presentations to local groups. CALFED agencies are also often members of the local implementation groups. But CALFED, AFRP, CVPIA, and other efforts are not staffed to be able to place a senior-level advisor on each of 300 to 400 local planning groups. Nor is it economically feasible to provide for close interaction among local groups starting a new project and the groups that have implemented successful projects. The costs of a program of field visits and routine meetings among

the thousands of people involved in ecosystem restoration would be astronomical and the successful projects would be overwhelmed with a new educational role.

We believe the learning curve can be shortened at relatively low cost because people can both be inspired and learn by example. Inspiration comes most frequently from seeing others with a vision work towards that vision (they can do it -- so can I). Tangible examples, with associated guidance that helps people "see" what needs to be done (vision) and provides step-by-step guidance (experience), may provide a reasonable substitute for the advice of mentors and the experience of frequent field visits to other projects. Film allows people to actually tell these stories, and thus to both inspire and convey something of their experience. CALFED has recognized the importance of this in supporting an environmental film program in the Bay Area and Central Valley. This integrated and consistent package of public information materials will be developed in two phases and will include:

Phase I

1. An "Ecosystem Restoration Case Studies Handbook." The Handbook will describe and illustrate case studies and provide an analysis of how each project addresses key ecosystem restoration concepts.
2. A "Resources Guide for Ecosystem Restoration." The Guide will provide references to other relevant materials which will be useful to those engaged in ecosystem restoration -- from technical books and articles to names and addresses of regional and local resource agencies, public interest groups, and educational resources.
3. An "Ecosystem Restoration Exhibit." The Exhibit will consist of 5-7 display boards, each illustrating a key ecosystem restoration concept.
4. A film treatment and pre-production plan for the documentary film that will be produced during Phase II.

Phase II

A half-hour broadcast-quality documentary film with the working title "Natural Partners" will highlight three to four successful restoration projects in the Central Valley, focusing on projects which best capture the vision of ecosystem restoration as a win-win for people and wildlife. The purpose of the film will be to capture the imagination of viewers and help them grasp the fundamental concepts of ecosystem restoration. The focus of the film will be on stories of ecosystem restoration and the benefits they have brought to both people and wildlife. The film will be shot in wide-screen Super 16mm, both for its high quality and to conform to new public television broadcast standards.

Once inspired by watching others succeed and reading their stories, people can then learn and apply what they have learned. This is the conceptual basis for the proposed

educational program -- ecosystem restoration stories told in everyday terms by those who experienced them, clear concrete advice about planning from those who have succeeded (and failed), and clear visual guides to key concepts.

3. Approach

We are, in essence, proposing to interpret the ecological vision of CALFED and others engaged in ecosystem restoration for the general public and local planning groups. Our team of media professionals and senior science advisors will work with the Education Outreach Subcommittee, with interpretive staff of agencies such as CDFG, and with key CALFED stakeholders to develop the proposed program.

To guide this effort, we have established a "content team" of science and planning advisors. The content team as a whole will meet several times at the beginning of the project to identify the themes which will run through all of the materials (for example, key ecosystem restoration concepts or key planning themes such as integration of restoration and local planning objectives). The Content Core Team members will then play an active role in planning and reviewing the film, handbook, and exhibit boards. The content team (below) represents a wide range of expertise and experience.

Content Core Team (Active/paid participants in the project)

G. Mathias Kondolf (UC Berkeley)
Chuck Hanson (Hanson Environmental)
Tom Taylor (Independent Consultant)
Peter Vorster (The Bay Institute)
John Cain (Natural Heritage Institute)

General Content Team Advisors (Have agreed to assist as time permits)

Leo Winternitz (Executive Director, The Water Forum)
Ted Sommer (DWR)
Rich Gresham (Placer County Planning)
Paul Ward (CDFG)
John Nelson (CDFG)
Mary Ann Dickenson (California Urban Water Conservation Council)
Mike Eaton (The Nature Conservancy)
Melissa Pitkin (Point Reyes Bird Observatory)
Arthur Feinstein (Golden Gate Audubon Society)

In addition, the project team will consult with the CALFED Education Outreach Subcommittee on a regular basis throughout the project. The broad expertise of the Core Team, the differing perspectives of members of the general content team, and the focused assistance of the Education Outreach Subcommittee will ensure that the work products

will maintain focus and effectively convey the most important ecosystem restoration themes in a consistent manner. The 2-year project will be conducted in two phases:

Phase 1: Case Study Handbook, Resource Guide, Exhibit Boards, and Film Treatment

We will develop a comprehensive and conceptually consistent public information package for those interested in ecosystem restoration in the Central Valley (applicable outside of the CALFED project area as well).

Beginning the cooperative effort, we will identify ecosystem restoration concepts to illustrate and select projects to use as the basis for case studies and film. In interviews, staff from selected projects will then tell us their story, with an emphasis on illustrating how they addressed these concepts. We will then prepare each case history in text and graphics. For example, we might choose to illustrate the concept of wildlife-friendly farming at Cosumnes Reserve (either the rice farming or dairy operations could be used). Mike Eaton from TNC will tell the story of TNC's development and implementation of this concept and explain how he addressed key concepts. His story will illustrate his approach to planning and implementing such programs in the local community, including his thoughts on what will and will not work, etc. We will illustrate the case study with photographs and graphics. After Mike had reviewed a draft, the Advisory Team and the CALFED Education Outreach Committee will review the draft and we will use their comments as the basis for a final case study. We anticipate from 12-15 case studies, each distinct in its specific goals and objectives. As high-priority projects, they share underlying emphasis on key concepts such as:

- Ecosystem functions and processes
- Integrated planning
- Exotic species management
- Positive interactions of human and wildlife benefits (such as wildlife-friendly farming and creation of buffer zones)
- Adaptive management, performance measures and monitoring
- Sustainability of restoration
- Water management (flow, quality)
- Ecosystem linkages
- Fluvial geomorphology
- Habitat/species relationships

For each case study, we will demonstrate how these key restoration concepts were addressed. Although each case study will be unique, the recurrent focus on underlying concepts will provide thematic continuity to the whole project -- hand book, exhibit boards, and film. In the film and in each case study, two levels of experience will be translated for the audience -- the experience of doing a particular type of project and the experience of addressing key concepts in the process.

The accompanying resource guide will provide an updatable listing of restoration projects in each watershed, with contact points and a brief project description, as well as an index of relevant books, articles, and government and non-profit agency contacts. Exhibit boards will use still photos and graphics from the case-study handbook. Location scouting for the film will occur at the same time case studies are researched and developed, resulting in a production plan and sequence-outline treatment for a documentary film that will highlight three to four of the most successful case studies.

Five hundred copies of the written-graphic materials and three copies of the exhibit panels will be delivered to CALFED for its use in its local community outreach programs. If needed, additional copies may be made by CALFED at cost.

Phase 2: Film Production and Distribution

The film treatment completed in Phase I will be reviewed by the Content Team and the Education Outreach Subcommittee. It will then be the basis for film production. The film's working title, "Natural Partners," echoes a fundamental CALFED theme at two levels: (1) that people and wildlife can exist as partners in a restored ecosystem and (2) that people with a wide variety of interests can work together to restore ecosystems and reap environmental, social, and economic benefits in the process. Selecting filming locations in various parts of the Central Valley (for example, Butte Creek, Cosumnes River, and the San Joaquin Mainstem or the Delta) will provide an overview of the problems and solutions for the entire valley.

Production will involve interviewing people whose projects capture the vision of ecosystem restoration as they work in the field. Charismatic characters, with compelling stories, who are engaged in creative problem solving will be emphasized. Vivid landscapes and waterscapes will be highlighted, enhanced by aerial footage and footage of wildlife, farming, and related sequences. The people, telling their own stories, will bring CALFED's key concepts to life on screen, providing models for other community planners.

The producers have already interviewed many people in the Central Valley, and completed a film and which involved the Cosumnes River Preserve, highlighting Allen Garcia, a fourth-generation rice grower, planting organic rice on the Preserve in 1997. It may be cost-effective to return to Mr. Garcia's story, documenting his successes and problems over the last 4 years as organic rice farming was introduced to the Preserve, as natural floods inundated his fields, and as he created wildlife-friendly conditions by leaving leftover rice straw for wintering ducks, geese, and sandhill cranes. This may become an in-depth case study or a subject for the film.

Throughout the film, there will be an underlying thematic focus on a key CALFED goal -- the integration of wildlife and human needs. This focus, with its inherent "win-win" optimism, its suitability for public television, and its importance to the creation of sustainable restoration projects, makes it particularly appropriate as an organizing

principle for "Natural Partners." It will introduce to the general public a positive, non-confrontational vision of conservation, a vision more inspiring than environmental messages of the past.

The documentary will be produced in Super 16mm film, a high-quality, wide-screen format compatible with current and pending public television standards. The wide, horizontal format of Super 16mm is perfect for the broad landscapes of the Central Valley.

Pelican Media will actively market the film, on a non-profit basis, for broadcast on Public Television and for use in the educational community. The producers will also contact Lawrence Hall of Science regarding the potential for wider distribution as part of their educational resources programs in the sciences. A nonprofit distributor such as the Video Project will be approached to assist with low-cost distribution. CALFED and other agencies will be provided with 100 VHS video copies of the film and may order additional copies at cost. If local Spanish-language stations indicate an interest in providing a dubbed version for their audiences, Pelican Media has included costs for its participation in editing a dubbed version for this audience.

4. Feasibility

The success of the project depends on the cooperation of those currently engaged in CALFED projects and other ecosystem-level restoration projects. The project team has, to date, received assurances of cooperation in this project from:

The Nature Conservancy
The Bay Institute
Point Reyes Bird Observatory
Golden Gate Audubon Society

Members of the Content Team also have extensive contacts in the restoration community and will aid in identifying and selecting projects to be the subject of the case studies and film.

The project's 2-year schedule allows more than adequate time for completion of the proposed work products. The work team has extensive experience developing similar projects in more compressed time schedules. For example, the 12.5-minute film "Partners on the Land," which the team produced for The Nature Conservancy in 1997 and has been used in CALFED's environmental education programs in the Central Valley, was conceived and produced in less than 6 months. The project team has a strong record of producing print and film products within a limited time frame, at very reasonable cost. The project team's ability to produce documents and film is enhanced by the availability of in-house desktop publishing and film editing. The team has established working relationships with printers, graphic artists, publishers, film animation specialists,

composers, and other independent experts whose services may be necessary to complete the project on time and within budget.

5. Performance Measures

In the short-term, project progress will be measured by completion of tasks as described in the Work Schedule and acceptance of work products by the Advisory Team and the Education Outreach Subcommittee. Quarterly progress reports will be submitted by project management. In addition, the project includes a "pre-screening" effort involving showing the primary work products to a sample of the intended audience, soliciting comments and responses regarding the utility of the products, and modifying them if substantial issues are raised by these reviewers. The pre-screening would be coordinated through the Education and Outreach Subcommittee.

6. Data Handling and Storage

The project will not itself generate new scientific information. However, photos and graphics illustrating ecosystem restoration principles may be an important resource for local planning groups, who may use them or modify them as part of their own planning efforts. These will be catalogued and copies provided to CALFED for distribution and use. Downloadable photo and graphic files (PDF format) will be provided as well, so that local planning groups may make additional copies. Textual materials will also be supplied in PDF format for posting on the CALFED web site.

7. Expected Products

Phase 1: Print Media and Distribution

"Ecosystem Restoration: Case Studies, Issues, and Answers for the Central Valley of California"

"Planning Resource Guide for Ecosystem Restoration in the CALFED, AFRP, CVPIA project area."

An "Ecosystem Restoration Exhibit," for use in public meetings, traveling exhibitions, libraries, etc.

The treatment and production plan for a film with a working title of "Natural Partners"

Phase 2: Film Production and Distribution

Filming, Post-Production, and Distribution of a film, "Natural Partners"

8. Work Schedule

The schedule of work will to some extent depend on the projects selected for the case studies. A general 2-year schedule for the major tasks is outlined below.

Table 1. Proposed Work Schedule

PHASE AND TASK	PERIOD OF WORK
Phase 1	YEAR 1:
A. Case Study Handbook	
1. <i>Identification of concepts to be addressed</i>	Month 1
2. <i>Identification of Case Studies</i>	Month 2-3
3. <i>Mock-up of Handbook and Review</i>	Month 2-3
4. <i>Field interviews and drafting of Handbook; an on-going cycle of interview-draft-review-finalize</i>	Month 3-8
5. <i>Graphics, layout, and production</i>	Month 9-12
6. <i>Delivery to CALFED</i>	Month 12
B. Resource Guide	
1. <i>Scoping</i>	Month 1-2
2. <i>Research and data collection</i>	Month 3-6
3. <i>Mock-up of Resources guide and Review</i>	Month 7
4. <i>Draft-review-edit-finalize</i>	Month 8-9
5. <i>Graphics, layout, and production</i>	Month 10-12
6. <i>Delivery to CALFED</i>	Month 12
C. Exhibit Boards	
1. <i>Scoping</i>	Month 6
2. <i>Mock-up and review</i>	Month 7
3. <i>Draft-review-edit-finalize</i>	Month 10
4. <i>Final graphics, layout, and production</i>	Month 12
5. <i>Delivery to CALFED</i>	Month 13-14
D. Film Pre-production and Treatment	
1. <i>Initial scoping and field visits</i>	Month 1-8
2. <i>Draft treatment and production plan</i>	Month 9-10
3. <i>Review and Revision</i>	Month 11
4. <i>Final Treatment and Production Plan</i>	Month 12
Phase II	
1. <i>Filming on Location</i>	Month 13-18
2. <i>Post Production</i>	Month 15-21
3. <i>Review and Comment by Team and CALFED</i>	Month 22
4. <i>Final Post-Production</i>	Month 23
5. <i>Delivery to CALFED and Distribution</i>	Month 24

B. Applicability to CALFED ERP and science program Goals and Implementation Plan and CVPIA Priorities

1. ERP, Science program, and CVPIA Priorities

By making the process of ecosystem restoration more accessible and providing guidance from those who have implemented ERP and CVPIA restoration programs, the proposed program will assist local groups in planning and implementing ERP and CVPIA restoration and management programs. The program will help local groups understand what is needed and what priorities mean in everyday terms, understand and apply basic principles of ecosystem restoration, and understand how to integrate ecosystem restoration and other human goals.

2. Other Ecosystem Restoration Projects

In addition to helping local groups understand CALFED goals and objectives, the program's focus on high priority and successful projects as case studies will help others develop projects that are compatible and consistent. The resource guide will, for example, provide an updatable listing of all restoration projects in each watershed, with contact points and a brief description of the project objectives, scope, and approach. This will provide a context for new plans and help to ensure compatibility among projects.

3. Requests for Next-Phase Funding

Not applicable.

4. Previous Recipients of CALFED Program or CVPIA funding

Judy Irving, film producer and founder of Pelican Media, received CALFED funding for the Independent Documentary Group's popular "Traveling Environmental Film Festival & Exhibition" for three years: 1999—2001 (total funding: \$174,900). The Traveling Festival features six award-winning public television films that Ms. Irving produced and directed about the San Francisco Bay/Delta and Greenbelt. In addition, Irving received 2001 CALFED funding (\$145,650) for "Tales of the San Joaquin," an oral-history-based documentary about the great River's past, present, and future.

5. System-Wide Ecosystem Benefits

The fundamental purpose of the proposed education project is to enhance system-wide ecosystem benefits by providing all local implementation groups with a clear, compelling, and consistent view of overall ecosystem restoration objectives, and a clear idea of how to plan a variety of projects to accomplish them.

6. Additional Information for proposals Containing Land Acquisition

Not Applicable

C. Qualifications

Pelican Media's production team consists of three professionals, Judy Irving, Jud Monroe, and Larry La Com. The Core Team of advisors consists of five of the most respected scientists in the Central Valley, each with decades of experience in developing and implementing ecological programs. Brief descriptions of team member qualifications are provided below.

Judy Irving, Pelican Media

Pelican Media is a new nonprofit organization created to produce and distribute films and other media in the public interest, specializing in environmental education. Founder Judy Irving previously received CALFED funding in 1999, 2000, and 2001 through the Independent Documentary Group.

Since graduating from Stanford University's masters program in Film and Broadcasting, Ms. Irving has received awards ranging from the Grand Prize at the Sundance Festival to a National Emmy Award ("Outstanding Individual Achievement in News and Documentary for her documentary, *Dark Circle*, about the human costs of the nuclear arms race, a film broadcast on PBS in prime-time). Her films have enjoyed broad international distribution in television, theater, and educational markets.

Ms. Irving's work in the Bay-Delta began in 1977 as the cinematographer for the League of Women Voter's film, *Thin Edge of the Bay*. Since then, she has produced or co-produced six other environmental films about the Bay-Delta region. These films include *Treasures of the Greenbelt* and *Secrets of the Bay*, companion films about Bay Area wildlife and countryside which were seen by over a million people on public television and distributed by the Greenbelt Alliance and Save the Bay. Recent projects include *Kids by the Bay* (about multi-ethnic school children involved in habitat restoration), *San Pablo Baylands* (a celebration of the wetlands of the North Bay), and *Partners on the Land* (about natural process restoration at The Nature Conservancy's Cosumnes River Preserve and several other reserves in southern California). All of these films have been widely distributed throughout the Bay Area, Central Valley, and Southern California.

Jud Monroe

Jud Monroe is a writer and environmental planning consultant with over 25 years experience in developing win-win public infrastructure projects and in preparing interpretive films and other interpretive programs. He helped develop successful preservation and restoration projects associated with flood control and other water resources efforts, including the Santa Ana River Marsh Restoration, the Prado Dam least

Bell's vireo protection area, the Batiquitos Lagoon Restoration Project, the 9,000-acre Santa Rosa Plateau Ecological Reserve, and the 12,000-acre Southwestern Riverside County Multi-Species Reserve. He has extensive NEPA, CEQA, CESA, FESA, and CWA experience -- and can thus ensure that planning guidance provided in the case study handbook is practical and consistent with law and regulation.

Dr. Monroe's interpretive and film experience began in 1971 at UC Davis where he worked on interpretive films with UC Davis Educational Television and team-taught environmental interpretation in the School of Letters and Sciences. He has done major interpretive programs for California Department of Fish and Game (in cooperation with CSU-Chico professor John Hooper) and U.S. Army Corps of Engineers (producing films and interpretive exhibits on a wide range of subjects, including tamarisk removal in the Gila Basin, flooding history in the Los Angeles Basin, and recreation at the Los Angeles District's flood control facilities). Most recently, he has helped develop interpretive programs for the Santa Rosa Plateau and Southwestern Riverside County Multi-Species Reserve. He has written two books on writing about science and report writing and his planning reports have won several major awards.

Dr. Monroe is also intimately familiar with the ecosystem restoration issues in the Central Valley and Bay-Delta. He headed the California Urban Water Agencies review of X2 standards in 1993-1994, leading to CUWA's science-based conclusion that such standards were necessary and justified and beginning the breakthrough that led to the Bay-Delta Accord. For eight years, he managed a large-scale ecological reserve, and worked with The Nature Conservancy in the development of the Cosumnes River Preserve (Valensin Ranch acquisition). He is familiar with salmon management issues, and was an early advocate of the successful restoration programs in the Yolo Bypass as a means of enhancing overall Bay-Delta nutrient loading. He also provided significant input to the CUWA-Bay Institute ecosystem analysis "From the Sierra to the Sea," which is the baseline ecological characterization used by many planners in the Central Valley. He is currently on the Entrix, Inc. team selected to work with the Department of Water Resources on fish passage enhancement in the Central Valley.

Larry La Com

Larry La Com has been a graphic designer and production artist since 1984, when he worked at International Art Services, Inc., a printing brokerage specializing in large-scale fine art reproductions -- posters, catalogs, brochures, print ads, and limited edition prints. In 1990, he joined the staff of Metropolitan Water District, where he now leads a 9-person graphics unit responsible for the design and production of publications and exhibits of this large public utility. He has a thriving freelance graphics practice as well, producing everything from CD covers to brochures to commercial point-of-purchase exhibits. He has designed and produced extensive technical reports and large-scale exhibits. He handles all aspects of design and production -- from initial concept to final press check.

Mr. La Com's commercial and public agency experience have given him a unique insight into the problem of translating science and engineering concepts into functional graphics that illustrate complex processes. He works side-by-side with planners and engineers, so he understands the planning process, both from the engineering and water resources perspective and from the environmental perspective through his work with the Santa Rosa Plateau Ecological Reserve and the Southwestern Riverside County Multi-Species Reserve. In a program seeking to provide illustrations of win-win restoration strategies developed by planning teams trying to integrate restoration with local concerns about flood control, development, agriculture, and water management, this understanding and experience will be essential to the process of translating complex ecological principles and restoration designs into clear visual representations.

Content Team: Core Members

UC Berkeley's Dr. Mathias Kondolf is recognized world wide as an expert in aquatic system dynamics and restoration of watershed/river systems. He is a member of the CALFED Science Advisory Board.

Dr. Chuck Hanson is an independent consultant with 25 years of Bay-Delta experience in fisheries whose knowledge of Central Valley fisheries and fisheries management issues is both broad and deep. He is widely regarded as one of the most knowledgeable biologists in the Central Valley and has excellent working relationships with local and regional government agencies throughout the Valley. He is the co-leader of the critical VAMP project on the San Joaquin River.

Peter Vorster is an hydrologist and restoration specialist at The Bay Institute. His 20 years of water resources experience include work at Mono Lake and in the Bay-Delta. In 1997-1998, he co-authored *From the Sierra to the Sea: The Ecological History of the San Francisco Bay-Delta*, published by TBI in 1998. Since 1999, his primary focus has been the restoration of the San Joaquin River.

John Cain is an environmental scientist for the Natural Heritage Institute, specializing in river restoration and water resources management. He is currently involved in planning and implementing several tidal marsh and river restoration projects in the Delta, the Yolo Bypass, the San Joaquin River, Marsh Creek, and the upper Feather River drainage. His UC Berkeley graduate research focused on historical geomorphic and hydrologic changes to the San Joaquin River and implications for fisheries restoration. Working for The Nature Conservancy, he developed an aquatic species restoration plan for the San Joaquin River, and has worked on Mono Lake, Rush Creek, and Lee Vining Creek.

Tom Taylor is a fisheries biologist with long experience in Central Valley environmental management programs, currently with Entrix, Inc. He has been lead biologist on numerous water resources and restoration projects and is currently project leader on the Entrix, Inc. fish passage project for the Department of Water Resources.

D. Cost

Pelican Media's small team of top-level people with a very broad range of skills and experiences is intended to optimize cost-benefit to CALFED by minimizing learning curves and providing overlapping skill and knowledge. All three "production staff" for the project have technical skills (filmmaking, writing, graphics) *and* deep understanding of the subjects they will be addressing. The team has extensive contacts in the CALFED agencies and has established working relationships with regional environmental groups such as TNC, TBI, Audubon Society, and NHI. The Core Content Team of scientific advisors has been engaged in Central Valley restoration planning for decades, both at the level of science concept and at the specific project level.

The team has no large corporate overhead and team consulting fees are lower than the net fees which would be charged by a large public involvement consulting firm. Overhead is a mere 7.5%. As a result, the proposed budget (Table 2) is a fraction of what a similar project would cost if CALFED were to contract for these work products from a standard commercial public relations firm. Total project cost, including cost of text and film production, will be \$583,882. Work on the optional Spanish translation would add \$16,125 to this total.

Table 2
Proposed Project Detailed Budget*

PHASE I				
Activity	Personnel	Hours	Rate	Cost
Phase I-A. SCOPING				
1. Meetings with CALFED and EdOut Subcommittee	Monroe	8	\$100	\$800
	Irving	8	\$100	\$800
	Content Core Team (CCT)	40	\$95**	\$3,800
2. Develop Project Plan	Monroe	16	\$100	\$1,600
	Irving	8		\$800
	CCT	40	\$95	\$3,800
3. Internal Review	Irving	4	\$100	\$400
	La Com	4	\$100	\$400
	CCT	25	\$95	\$2,375
4. Final Project Plan	Monroe	8	\$100	\$800
5. Travel (Miles)	All	3000	\$0.33	\$990
6. Overhead (7.5%)				\$1,242
Subtotal, Scoping				\$17,807.00
Phase I-B. HANDBOOK AND FILM PRE-PRODUCTION				
1. Field Meetings with Project Leaders	Monroe	100	\$100	\$10,000
	Irving	100	\$100	\$10,000
	La Com	100	\$100	\$10,000
	CCT	100	\$95	\$9,500
2. Follow-up Field Meetings	Irving	64	\$100	\$6,400
	Bittner (Prod. Asst.)	64	\$50	\$3,200
3. Handbook Mock Up	Monroe	16	\$100	\$1,600
	La Com	20	\$100	\$2,000
4. CCT and CALFED Review	Monroe	8	\$100	\$800
	La Com	8	\$100	\$800
	CCT	40	\$95	\$3,800
5. Draft Handbook (12-15 case studies)	Monroe	250	\$100	\$25,000
6. Draft graphics	La Com	370	\$100	\$37,000
7. Integrate text, graphics	Monroe	24	\$100	\$2,400
	La Com	36	\$100	\$3,600
8. Review and Discuss	Irving	6	\$100	\$600
	CCT	60	\$95	\$5,700
9. Final text edit	Monroe	20	\$100	\$2,000

10. Final layout and graphics	La Com	84	\$100	\$8,400
11. Coordinate Publication	La Com	8	\$100	\$800
12. Publication (full color, est. 300 pages, 500 copies)	All Valley Printing			\$37,000
13. Travel (miles)	All	21000	\$0.33	6,930
14. Travel (air trips)	La Com	7	\$300	\$2,100
15. Travel (hotel, Per Diem)	Irving, Bittner			\$2,880
16. Film supplies, equip. rent.				\$10,800
17. Graphic and Office Sup.				\$3,000
18. Lab Services				\$5,000
10. Overhead (7.5%)				\$15,848
Subtotal, Handbook and Pre-Production				\$227,158.00
Phase I-C. EXHIBIT BOARDS				
1. Mock-up Meeting	Monroe	4	\$100	\$400
	La Com	4	\$100	\$400
2. Layout and draft graphics	La Com	20	\$100	\$2,000
3. Text	Monroe	12	\$100	\$1,200
4. Review and Discuss	Monroe	5	\$100	\$500
	La Com	5	\$100	\$500
	CCT	20	\$95	\$1,800
5. Final Text and Graphics	Monroe	6	\$100	\$600
	La Com	8	\$100	\$800
6. Coord production	La Com	6	\$100	\$600
7. Production (3 copies)	Signs 2000, Inc.			\$4,900
8. Travel (miles)	All	3000	\$0.33	\$990
9. Travel (Air trips)	La Com	2	\$300	\$600
10. Overhead (7.5%)				\$1,147
Subtotal, Exhibits				\$16,437.00
Phase I-D. RESOURCE. GUIDE				
1. Research	Monroe	60	\$100	\$6000
	CCT	50	\$95	\$4,750
2. Mock-up	Monroe	8	\$100	\$800
	La Com	12	\$100	\$1,200
3. Draft Text and Graphics	Monroe	60	\$100	\$6,000
	La Com	40	\$100	\$4,000
4. Review and Meetings	Monroe	12	\$100	\$1,200
	La Com	12	\$100	\$1,200
	CCT	24	\$95	\$2,280
5. Finalize	Monroe	20	\$100	\$2,000
	La Com	20	\$100	\$2,000

6. Coord Publication	La Com	4	\$100	\$400
7. Publication (Est. 200 copies)	All Valley Printing			\$3,800
8. Travel (Miles)	All	3000	\$0.33	\$990
9. Overhead (7.5%)				\$2,747
Subtotal, Resources Guide				\$39,367.00
Phase I-E. FILM TREATMENT AND PRODUCTION PLAN				
1. Project Team Meetings	Irving	8	\$100	\$800
	Monroe	8	\$100	\$800
	La Com	8	\$100	\$800
	CCT	24	\$95	\$2,280
2. Draft Treatment	Irving	20	\$100	\$2,000
	Monroe	20	\$100	\$2,000
3. Review	CCT	24	\$95	\$2,280
4. Final Treatment	Irving	12	\$100	\$1,200
	Monroe	8	\$100	\$800
5. Production Plan	Irving	12	\$100	\$1,200
	Monroe	8	\$100	\$800
6. Travel (air trips)	La Com	1	\$300	\$300
7. Overhead (7.5%)				\$1,145
Subtotal, Treatment and Production Plan				\$16,405.00
Phase I-F. PROJ. MGMT				
1. Project Management	Monroe	50	\$100	\$5,000
	Irving	50	\$100	\$5,000
2. Overhead (7.5%)				\$750
Subtotal, Proj. Mgmt.				\$10,750.00
TOTAL, PHASE I				
PHASE II: FILM				
1. Film direction, writing, editing, cinematography	Irving	775	\$100	\$77,500
2. Production Assistant	Mark Bittner	720	\$50	\$36,000
3. CCT Participation In Editing and Review	CCT	150	\$95	\$14,250
4. Production Coordinator, Editing Consultant	Monroe	150	\$100	\$15,000
5. Project Management	Monroe	50	\$100	\$5,000
	Irving	50	\$100	\$5,000
6. Supplies, film, sound stock, other production supplies				\$15,250

7. Equipment Rental (Camera, sound pack, Avid editing, Sound editing)				\$22,700
8. Lab and other services (processing, transcribing, logging, sound editing, music, on-line recording, cassette production)	Monaco Labs Pat Rickey, Composer Sam Lehmer, Sound			\$36,500
9. Travel (miles)	Irving, Monroe, Bittner	4000	\$0.33	\$1,200
10. Hotel and Per Diem on location	Irving, Bittner	60	\$120	\$7,200
11. Post-Production Misc. Expenses	Irving, Monroe, Bittner			\$2,500
Overhead (7.5%)				\$17,858
TOTAL, PHASE II				\$255,958.00
Optional Spanish Dubbing of the Film (including overhead)				\$16,125***

Notes:

* Itemizations are estimates only. Individual tasks may vary from the estimate, both increasing and/or decreasing depending on field conditions and other contingencies. Pelican Media reserves the right to transfer funds from one category to another within the overall budget as long as all products are produced to CALFED's satisfaction within the overall budget.

** The Core Content Team rate is a blended rate of CCT members fees, assuming that all members participate equally. Other Content Team members will participate on a voluntary basis.

*** Pelican Media costs for a cooperative translation and dubbing effort with a local Spanish-language television station, pending an expression of interest in broadcast of the film in Spanish. Pelican Media will also pursue supplemental funding for this translation from a variety of nonprofit sources; in general, film production will need to be underway before significant outside funding may be solicited.

E. Local Involvement

This program will have multiple layers of local involvement. First, the Content Team will include members currently engaged in local implementation of ecosystem restoration projects -- from Cosumnes River to Butte Creek to the Yuba River to the San Joaquin River.

Second, at least 12-15 local projects will be selected during scoping and their cooperation solicited in developing the Handbook, Exhibit boards, and Film. Third, staff of several stakeholder groups, including The Bay Institute, Natural Heritage Institute, Golden Gate

Audubon Society, and Point Reyes Bird Observatory will participate as part of the Content Team, bringing their perspective on ecosystem restoration to the program. Local involvement will also be coordinated by the project staff through the Education Outreach Subcommittee, which includes local representatives.

F. Compliance with Standard Terms and Conditions

Pelican Media will comply with all applicable State and/or Federal contract requirements.

G. Literature Cited

Chin, C and DE Brown. 2000. Learning in Science: a comparison of deep and surface approaches. *J Res Sci Teach* 37: 109-138

Cobern, WW, AT Gibson and SA Underwood. 1999. Conceptualizations of nature: an interpretive study of 16 ninth graders everyday thinking. *J Res Sci Teach* 36: 541-564.

Linn, MC and HC Clark. 1997. When are science projects learning opportunities? *Research matters -- to the Science Teacher*. NARST.