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Community Resources for Science

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CALFED Bay-Delta Program
1416 Ninth Street, Suite 1155
Sacramento, California 95814

July 26, 1997

Dear CALFED,

Community Resources for Science in collaboration with The Nature Conservancy is submitting an inquiry letter for the Bay-Delta Education Project. Please find enclosed ten copies for your review.

We would be happy to answer any questions or provide additional information at your request.

Sincerely,



Nicki Norman
Executive Director
Community Resources for Science

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**Inquiry Letter for CALFED Bay Delta Program
1997 Category III
Ecosystem Restoration Projects and Programs, RFP Group 3**

Project Title: The Bay-Delta Education Project
Applicant: Community Resources for Science, in collaboration with The Nature Conservancy and other organizations to be identified

Project Description and Objectives: The Bay-Delta Education Project is designed to integrate and strengthen educational programs that teach the value of the Bay-Delta ecosystem and behavior changes that can help minimize human impacts on priority habitats and species. The Education Project will work with existing educational programs addressing the habitats of the Bay-Delta area and its lower watershed areas to determine how these programs can be linked and expanded to improve their effectiveness and to minimize program costs. The resulting *network* of educational programs will provide direct experience with how habitats in the Bay-Delta ecosystem are related and opportunities for students and the general public to assist in restoration efforts designed by each educational site.

The primary biological and ecological objectives of the proposed project are to reduce factors that put stress on priority habitats and species in the Bay-Delta ecosystem. The land-use, behavior, and recreation-related stressors that can be reduced through education programs include: lack of flow, habitat degradation from erosion and pollution, habitat destruction, introduction of exotic species, and direct impacts associated with recreational use. The Bay-Delta Education Project will identify existing programs that are attempting to reduce the impact of these stressors on the Bay-Delta priority habitats through education about:

- the value of the ecosystem in the Bay-Delta and lower watershed areas to economic, environmental and public health of California;
- the habitats and priority species in each educational program's service area and the role they play in the larger ecosystem;
- the specific behaviors and land-use changes necessary to reduce critical impacts to particular habitats and priority species.

Approach/Tasks/Schedule:

The Bay-Delta Education Project team will be drawn from the education staff of The Nature Conservancy's Cosumnes River Preserve and Community Resources for Science, a non-profit organization dedicated to improving elementary science education. An advisory board made up of CALFED representatives and other experts in habitat restoration and pollution control will provide guidance on curriculum and hands-on experiences. The project team will perform the following tasks over a six-month period starting when project funding is received:

- Identify existing educational programs within the Bay-Delta ecosystem and its lower watershed area that are focused on reducing the stressors that are impacting priority habitats and species;
- Determine if any priority habitats within the Bay-Delta ecosystem and lower watershed are not addressed by existing educational programs and identify specific additional sites to develop;
- Conduct a workshop with existing and new educational sites to identify methods for sharing outreach efforts and volunteer pools, avoiding program duplication, and possible partnerships;
- Facilitate organizational sharing of existing curriculum and future program directions to determine whether a new, linked, multi-site curriculum might be developed;

- Help each site to develop hands-on habitat restoration activities or pollution control projects that allow opportunities for active involvement of teachers, students and other community members;
- Produce a plan for organizing and supporting the ongoing integration of education programs related to the CALFED mission in the Bay-Delta ecosystem.

Justification for Project and Funding: Long-term restoration projects need long-term public support, especially for programs that aim to modify behavior and land-use practices. Education can increase and sustain public understanding of factors that impact the Bay-Delta ecosystem, CALFED program goals, and how people can help. A personal experience with habitat restoration or pollution control can be a powerful component of an education program, providing an opportunity for community participation and an investment in the health of the Bay-Delta ecosystem. The Nature Conservancy's Visitor Center-Willow Slough site will play an important role in the integrated education program by serving the critical population located around the State Capitol, Stockton and this part of the Central Valley.

The unique characteristics of the proposed Bay-Delta Education Project are its ability to highlight the ecosystem connections that underlie the entire CALFED program and to improve the effectiveness of local education programs. Existing educational programs will be improved by three methods: (1) linking programs to highlight the connections between habitats within the greater Bay-Delta ecosystems, cover all the priority habitats, and reduce program duplication (2) coordinating outreach activities and volunteer pools to increase exposure and reduce costs, and (3) encouraging the integration of hands-on pollution control or restoration projects into each educational program.

Budget Costs and Third Party Impacts: The budget for the proposed project is \$18,000 over a six month period. There are no third party impacts.

Applicant Qualifications: A description of the two lead organizations, The Nature Conservancy and Community Resources for Science is included as Attachment 1. The qualifications of the project team are presented in Attachment 2.

Monitoring and Data Evaluations: The performance of the project will be measured through an evaluation program designed to capture specific indicators. Specific indicators may include coverage of all priority habitats, number of programs involved in workshop, number of programs that integrate hands-on projects, and the teacher focus group response to the integrated educational program.

Local Support/Coordination with Other Programs: The purpose of the project is to work with existing education programs to improve their effectiveness. The project team will also conduct focus group activities with local teachers to evaluate curriculum and hands-on projects. The Nature Conservancy and Community Resources for Science are connected with local landowners in the Delta region, existing educational programs, curriculum development experts, and resource agencies.

Compatibility with CALFED Objectives: The Bay-Delta Education Project develops an integrated educational network that will provide long-term ecosystem benefits through promoting water conservation, water quality protection, and preservation and restoration of priority habitats and species. Although these are not direct ecosystem benefits, this project (in conjunction with similar activities elsewhere) is integral to the long term success of the Bay-Delta program. It will aid in developing public support and understanding of ecosystem management principles, ecosystem restoration potential, and the key role of natural factors like flooding and tidal action.

Attachment 1: Applicant Description

Community Resources for Science Community Resources for Science (CRS) is a non-profit service and information center dedicated to making science education stimulating and accessible to all children in public elementary schools. Community Resources for Science works in partnership with elementary public school teachers to develop science enrichment programs that meet their needs, and to provide exciting new routes for learning both inside and outside the classroom. Our programs include direct support services for teachers, information and program development advice for educational programs, teacher training, curriculum development, and educational forums for teachers and the community. CRS programs build dynamic links between schools and the community, improve student access to existing enrichment resources and role models, and provide opportunities for science-related professionals, educational programs and curricula developers to connect directly with interested teachers.

Community Resources for Science is located in Preservation Park, Oakland, California and provides information and services for educational programs located all over the Bay Area.

The Nature Conservancy The Nature Conservancy is an international, private, non-profit membership organization whose mission is to preserve plants, animals and natural communities that represent the diversity of life on Earth by protecting the lands and waters they need to survive. The Conservancy has over 45 years of experience in identifying, protecting and managing significant natural areas. Its strength and reputation is built on the application of the best conservation science available and by building partnerships with local communities, private organizations and public agencies to achieve mutual conservation goals.

The Nature Conservancy in California uses a wide variety of tools to help forge solutions to conservation issues. We employ the following four methods most frequently: land acquisition; land management and restoration; land-use planning and conflict resolution; and community education and outreach.

Several of The Nature Conservancy's landmark conservation projects have focused on riparian ecosystems. Conservation efforts for these complex natural communities must include maintaining and restoring the natural processes that are essential to the long-term health of the hydrological system. In addition, The Nature Conservancy strives to balance the protection and restoration of natural communities with compatible human uses. Specific examples include:

Cosumnes River Project; Sacramento County. The Cosumnes River's annual floods keep alive forests and wetlands like those that once covered the Central Valley, providing homes for tens of thousands of waterfowl and migratory birds. Working side by side with the local agricultural community and other partners, the Conservancy is managing and restoring thousands of acres to health. Protection tools here include acquisition, conservation easements, management and restoration, and cooperative arrangements with farmers to develop sustainable agriculture.

Sacramento River Project; Butte County. The great Central Valley was once covered by jungle-like riverside forests estimated at nearly one million acres, reduced to 20,000 today. Working with local agriculture interests, TNC is currently staging the largest streamside restoration project in the U.S., targeted to replant a continuous 100-mile stretch of forest along the Sacramento River.

Attachment 2: Project Team Qualifications

Sarah Blanchette Ms. Blanchette, The Nature Conservancy Outreach Program Manager, will cover administrative and project management roles. Sarah graduated from U.C. Davis with a Bachelors of Science degree, biological sciences major, and has worked for The Nature Conservancy for seven years. During her tenure with The Conservancy Sarah has been responsible for the development of a responsible core of volunteer naturalists and the Preserve curriculum. She is a member of the National Association of Interpretation.

Nicki Norman/Anne Jennings Ms. Norman and Ms. Jennings, Co-Directors of Community Resources for Science, will oversee the research on educational programs and work with educational programs in the workshop and implementation phase to develop partnerships that reduce costs and strengthen curriculum. As directors and founders of Community Resources for Science, they have extensive information about and connections in the Bay Area educational community. Nicki Norman has 20 years of experience designing and implementing complex environmental and regulatory projects involving agencies, utilities, engineering companies, environmental consultants, and community groups. She has developed and taught curricula on environmental and regulatory issues for widely varying groups of children and adults. In addition to her analytical and management experience, Ms. Norman has strong mediation and consortium building skills.

Anne Jennings has over 15 years of experience in designing and administering projects in nonprofit organizations, including her ongoing association with the Exploratorium in San Francisco. At the Exploratorium, her experience includes administering two teacher training programs, managing the large volunteer program, and implementing exhibit and exhibition development and installation. In these capacities she has administered large, multi-year grants, developed community coalitions and education projects, and has broad experience and understanding of local science education programs and initiatives in both formal and informal education settings.

Michael R. Eaton Mike Eaton, Director of the Cosumnes River Project for The Nature Conservancy, will assist with project design and management and provide connections with restoration expertise in the environmental community. The Cosumnes River Project seeks to protect and preserve, through cooperative, market-based mechanisms, critical remaining habitats and farmland on the Cosumnes River, one of California's few remaining undammed rivers. The Director is responsible for communications, strategy, and fund-raising, as well as oversight of planning, property acquisition, and management activities.

Prior to joining The Nature Conservancy, Eaton worked as a private consultant and as a staff member with the Resources Agency of the State of California. Eaton has served on a variety of public commissions and advisory boards involving natural resources and economic development. He has been recognized as one of Sacramento's "10 Most Important Figures" (Sacramento Business Journal, March, 1995) and "Best and Brightest" (Sacramento Magazine), and honored by several environmental organizations. He was born in Stockton, CA, and has lived with his family in Sacramento since 1976. He is an active bicyclist, skier, and musician.

Attachment 2: Project Team Qualifications continued

[[Participants invited to participate in brainstorming the design phase will include key teachers from the local school districts, the Sacramento and San Joaquin county office of education science specialists, and California Department of Education Environmental Education program consultant, the California Department of Water Resources water education specialist, the California Department of Fish and Game interpretive services supervisor, and CALFED staff. The participants will bring diverse expertise in science, biology, and communication.]]