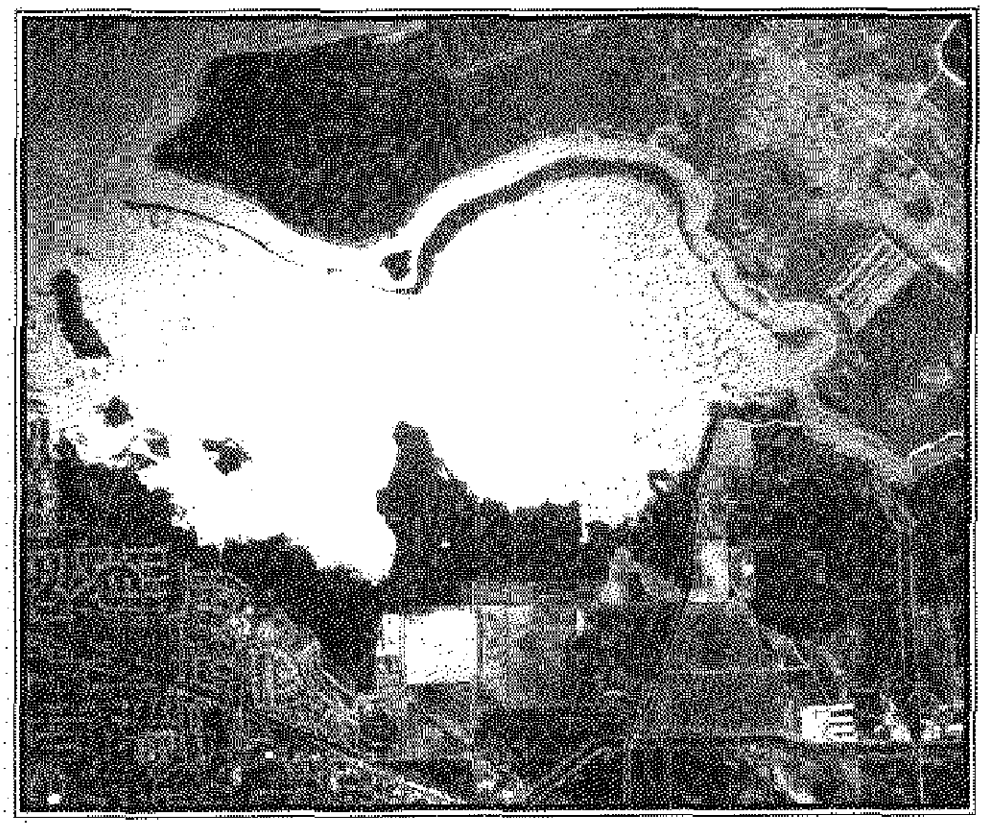
G1048

THE

DELTA SCIENCE CENTER

AT BIG BREAK



MARSH CREEK WATERSHED SCIENCE PROGRAM

MAY 1998 • ECOSYSTEM RESTORATION PROJECTS AND PROGRAMS - CALFED BAY-DELTA PROGRAM

LOCAL WATERSHED STEWARDSHIP

I —012057

I-012057

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Attachment H

COVER SHEET (PAGE 1 of 2)

May 1998 CALFED ECOSYSTEM RESTORATION PROPOSAL SOLICITATION

Proposal Title: Marsh Creek Watershed Science Program

Applicant Name: THE DELTA SCIENCE CENTER at Big Break

Mailing Address: 86 Orchard Estates Drive, Walnut Creek, CA 94598

Telephone: 925-947-1473

Fax: 925-947-1473

Amount of funding requested: $163,474 for 1.5 years

Indicate the Topic for which you are applying (check only one box). Note that this is an important decision: see page __ of the Proposal Solicitation Package for more information.

- ☐ Fish Passage Assessment
- ☐ Fish Passage Improvements
- ☐ Floodplain and Habitat Restoration
- ☐ Gravel Restoration
- ☐ Fish Harvest
- ☐ Species Life History Studies
- ☒ Watershed Planning/Implementation
- ☐ Education
- ☐ Fish Screen Evaluations - Alternatives and Biological Priorities

Indicate the geographic area of your proposal (check only one box):

- ☐ Sacramento River Mainstem
- ☐ Sacramento Tributary: _____
- ☒ Delta
- ☐ East Side Delta Tributary: _____
- ☐ Suisun Marsh and Bay
- ☐ San Joaquin Tributary: _____
- ☐ San Joaquin River Mainstem
- ☐ Other: _____
- ☐ Landscape (entire Bay-Delta watershed)
- ☐ North Bay: _____

Indicate the primary species which the proposal addresses (check no more than two boxes):

- ☐ San Joaquin and East-side Delta tributaries fall-run chinook salmon
- ☐ Winter-run chinook salmon
- ☐ Spring-run chinook salmon
- ☐ Late-fall run chinook salmon
- ☒ Fall-run chinook salmon
- ☐ Delta smelt
- ☐ Longfin smelt
- ☒ Splittail
- ☐ Steelhead trout
- ☐ Green sturgeon
- ☐ Striped bass
- ☐ Migratory birds

COVER SHEET (PAGE 2 of 2)

May 1998 CALFED ECOSYSTEM RESTORATION PROPOSAL SOLICITATION

Indicate the type of applicant (check only one box):

- ☐ State agency
- ☐ Federal agency
- ☐ Public/Non-profit joint venture
- ☒ Non-profit
- ☐ Local government/district
- ☐ Private party
- ☐ University
- ☐ Other: _____

Indicate the type of project (check only one box):

- ☐ Planning
- ☐ Implementation
- ☒ Monitoring
- ☐ Education
- ☐ Research

By signing below, the applicant declares the following:

(1) the truthfulness of all representations in their proposal;

(2) the individual signing the form is entitled to submit the application on behalf of the applicant (if applicant is an entity or organization); and

(3) the person submitting the application has read and understood the conflict of interest and confidentiality discussion in the PSP (Section II.K) and waives any and all rights to privacy and confidentiality of the proposal on behalf of the applicant, to the extent as provided in the Section.

Stephen Bartolotta

(Signature of Applicant)

I. Executive Summary: Marsh Creek Watershed Science Program

A. Project Title: Big Break Restoration, Education, and Research Plan
Applicant Name: Delta Science Center

B. Project Description: Marsh Creek is a rapidly urbanizing watershed that heads on the back side of Mt. Diablo and drains into the Western Delta at Big Break. The goal of the Marsh Creek watershed project is to engage local students and residents in a high quality data collection and analysis effort that will inform restoration planning in the watershed from the headwaters to the Delta.

This proposal is not for the development of a plan. Rather it is a study of the watershed to understand the past and present trends and processes shaping the ecology of Marsh Creek, a requisite first step toward the development of an environmentally sensible management plan. This study is based on a model developed by Luna Leopold and Josh Collins of the San Francisco Estuary Institute[1] and is predicated on the idea that you must "listen to the river" before implementing restoration measures. Far too often, well-intended efforts to restore or improve creeks are not based on a scientifically sound understanding of the system, resulting in misguided efforts that are at best a misallocation of public resources. In watersheds throughout California, citizens are bursting with energy to implement restoration actions but our lacking the data and knowledge to make informed decisions. This proposal lays out a plan of action to engage local students and enthusiastic citizens in the collection and analysis of data from Marsh Creek. An interdisciplinary team of scientists and educators from the San Francisco Estuary Institute, the Delta Science Center, the Natural Heritage Institute, and the East Bay Regional Park District will work with these local citizens to develop consistent data collection protocol and provide the expertise to properly analyze the data.

C. Approach/Tasks/Schedule:

Task	Completion Date
Phase I: Reconisance and Basic Data Collection	November 1998
Phase II: Detailed Investigation	November 2000
Phase III: Ongoing Investigations and Monitoring	Long Term

D. Justification for Project and Funding by CALFED:

Marsh Creek is important because: 1) it drains directly into Big Break and the Western Delta – critical habitat for multiple native Delta fishes; 2) rapid urbanization in the watershed threatens to degrade aquatic resources in the creek and western Delta, 3) Marsh Creek continues to support populations of endangered and declining native species such as western pond turtle and red legged frogs; 4) a restored Marsh Creek could provide spawning habitat for native fish including Sacramento splittail and chinnook salmon.

Marsh Creek and its watershed are at a crossroads. Marsh Creek runs between two signifcant natural areas, Mt. Diablo and the Delta, but the area between these two treasures is perhaps the fastest urbanizing watershed in North America.[2] With proper information and planning, Marsh Creek could

[1] The Bay Area Watersheds Science Program: The Role of Watershed Science to Support Environmental Planning and Resource Protection. Prepared by th Senior Science Staff, San Francisco Estuary Institute. January 1997.
[2] Last year the City of Brentwood, located midway between Mt. Diablo and the Delta, was identified as the fastest growing City in the United States.

be restored into a thriving riparian ecosystem that supports native aquatic species along its entire length potentially including runs of Chinook salmon. Without foresight, however, the creek could be rapidly and permanently transformed into a flood conveyance channel for polluted urban run-off. This proposal seeks funds to develop a Watershed Science Program that will collect the information necessary to protect and restore the Marsh Creek watershed.

E. Budget Costs and Third Party Impacts:

Task	Cost
Phase I: Recognizance and Basic Data Collection	$56,704
Phase II: Detailed Investigation	$167,090
Total before Cost Share	$223,794
Total Requested after Cost Share	$163,474
Phase III: Ongoing Investigation and Monitorying	uncertain

No third party impacts anticipated.

F. Applicant Qualifications:

Steve Barbata is executive director of the *Delta Science Center*. He previously served as director of the regionally acclaimed Lindsey Wildlife Museum and has 25 years of experience in the design, building and funding of educational institutions. *Greg Thomas, David Fullerton,* and *John Cain* of *NHI,* will all participate in project implementation. *John Cain M.L.A,* who will oversee day to day management of the project, has a graduate degree in environmental planning and 8 years of experience in aquatic habitat restoration planning and research. NHI board member, *Luna Leopold, Ph.D* is the primary author of the watershed study program and world renowned for his expertise in hydrology and fluvial systems. He and *Josh Collins, Ph.D,* and *Laurel Collins,* of the San Francisco Estuary Institute, will actively participate and advise the project. These three have successfully implemented the Watershed Science Program in other Bay Area Watersheds.

G. Monitoring and Data Evaluation

This project is focused on collecting and evaluating data necessary to make informed decisions about the future management and restoration of Marsh Creek. Josh Collins, a member of the CMARP panel, will review the data collection protocol. Data collected will be posted on the web for use by agency scientists, school groups, and other interested parties. A panel of relevant experts will be established to review the final report and recommendations.

H. Local Support/Coordination with other Programs/and Compatibility

This project is organized and managed by the Delta Science Center, a non-profit 501C-3 organization. Numerous local groups, interests, and institutions are represented on the Board of the Delta Science Center including Emerson Dairy, Contra Costa County, the East Bay Regional Park District, Contra Costa Water District, Contra Costa Community College District, Cal State Hayward, Pacific Gas and Electric, the Sierra Club and the Audubon Society. See attached letters of support.

III. TITLE PAGE

a. MARSH CREEK WATERSHED SCIENCE PROGRAM

b. THE DELTA SCIENCE CENTER at Big Break
Stephen Barbata, Executive Director
86 Orchard Estates Drive
Walnut Creek, CA 94598
phone and fax: 925-947-1473

c. Nonprofit public benefit corporation
The East Bay Regional Park District is the fiscal agent for the DSC.

d. Tax identification number: 23-7011877

e. Participants are:

PROJECT OVERSIGHT
Stephen Barbata
Executive Director
The Delta Science Center
86 Orchard Estate Drive
Walnut Creek, CA 94598

PROJECT PARTNERS
Joshua Collins, Ph.D.
San Francisco Estuary Institute
1325 S. 46th Street
Richmond, CA 94804

Mike Moran
East Bay Regional Park District
Black Diamond Mine Regional Park
2950 Peralta Oaks Court
Oakland, CA 94620

Gregory A. Thomas: Technical Management and Planning
Natural Heritage Institute
114 Sansome Street, Suite 1200
San Francisco, CA 94702

III. Project Description and Approach

A. Project Description

Background

Marsh Creek is important because: 1) it drains directly into Big Break and the Western Delta – critical habitat for multiple native Delta fishes; 2) rapid urbanization in the watershed threatens to degrade aquatic resources in the creek and western Delta, 3) Marsh Creek continues to support populations of endangered and declining native species such as western pond turtle and red legged frogs; 4) a restored Marsh Creek could provide spawning habitat for native fish including splittail, chinnook salmon, and splittail

The headwaters of Marsh Creek in Mt. Diablo State Park and Morgan Territory Regional Preserve support some of the last populations of red legged frogs and western pond turtles in the San Joaquin Valley. The Marsh Creek watershed drains into the Western Delta at Big Break, an important area for several species of threatened or endangered native fish. Between its headwaters and its mouth, however, the Marsh Creek watershed is undergoing rapid urbanization threatening native species both upstream and downstream species.

Marsh Creek and its watershed are at a crossroads. With proper information and planning, Marsh Creek could be restored into a thriving riparian ecosystem that supports native aquatic species along its entire length including runs of Chinook salmon. Without foresight, however, the creek could be rapidly and permanently transformed into a flood conveyance channel for polluted urban run-off. This proposal seeks funds to develop a Watershed Science Program that will collect the information necessary to protect and restore the Marsh Creek watershed.

Project Goal: Engaging Citizens in Watershed Science

The goal of the Marsh Creek watershed project is to engage local students and residents in a high quality data collection and analysis effort that will inform restoration planning in the watershed from the headwaters to the Delta.

This proposal is not for the development of a plan. Rather it is a study of the watershed to understand the past and present trends and processes shaping the ecology of Marsh Creek, a requisite first step toward the development of an environmentally sensible management plan. This study is based on a model developed by Luna Leopold and Josh Collins of the San Francisco Estuary Institute[1] and is predicated on the idea that you must "listen to the river" before implementing restoration measures. Far too often, well intended efforts to restore or improve creeks are not based on a scientifically sound understanding of the system, resulting in misguided efforts that are at best a misallocation of public resources. In watersheds throughout California, citizens are bursting with energy to implement restoration actions[2] but are lacking the data and knowledge necessary to make informed decisions. This proposal lays out a plan of action to engage local students and enthusiastic citizens in the collection and analysis of data from Marsh Creek. An interdisciplinary team of scientists and educators from SFEI, Delta Science Center, NHI, and EBRPD will work with these

[1] The Bay Area Watersheds Science Program: The Role of Watershed Science to Support Environmental Planning and Resource Protection. Prepared by th Senior Science Staff, San Francisco Estuary Institute, January 1997.
[2] Insert footnote from Mat

local citizens to develop consistent data collection protocol and provide the expertise to properly analyze the data.

Project Goals: Working with Citizens and Building on Local Initiatives

This study, however, will not produce another report delivered by experts to another government meeting. Rather it will cultivate a living, growing knowledge of the creek among the residents of the watershed who participate in the study, thereby providing local democratic institutions with both the information and knowledge necessary to make management decisions about complex and dynamic ecosystems.

The proposed program will build on, and attempt to focus, numerous initiatives to study and restore the creek that have been developed by local organizations. The Delta Science Center and the EBRPD regularly host creek study programs for local schools. Additionally, EBRPD manages parks and programs in both the headwaters and at the mouth of Marsh Creek and maintains a trail between Big Break and the City of Brentwood. The City of Brentwood's master plan developed innovative guidelines for re-naturalizing the Marsh Creek channel as sub-divisions are constructed on adjacent lands. The Dainty Education Center in Brentwood has developed an educational curriculum that emphasizes the ecological and social values of Marsh Creek. The City of Brentwood's Marsh Creek Advisory Committee regularly organizes creek clean-up days and sponsors an adopt a creek program with participation from the scouts, the 4-H program, the Rotary club and other local groups. The Contra Costa County Flood Control Agency has initiated an environmentally friendly flood control effort to simultaneously achieve flood control and ecosystem objectives in selected reaches of Marsh Creek. The Contra Costa Water District has collected high quality data on conditions in the headwaters of Marsh Creek.

Although local residents support these programs, they lack a central, organizing focus that integrates them at the watershed level. Teachers and professors from local schools and colleges lead their students in data collection exercises but lament the fact that there is no organized system for utilizing the data they collect. The Brentwood master plan for the Creek is a great example of enlightened planning but does not extend to the portions of the creek outside of the City limit. According to its members, the once active Marsh Creek Advisory Committee has historically had difficulty integrating creek issues into local school curricula and has otherwise lost momentum in recent years. This project will bring all of these efforts and others together in a renewed effort around the Watershed Science Program.

B. Proposed Scope of Work

The Watershed Science Program can be summarized as the following three basic steps:

1. Develop and understanding of the environmental past, the present, and change.
2. Based upon the understanding of change, develop quantitative resource objectives for the future.
3. Monitor progress toward the objectives, and monitor the risk that the objectives might not be achieved.

This proposal primarily seeks funds to complete step 1 and 2 of the Watershed Science Program. During this step, the project applicants will work with and train local teachers, students and citizens to accomplish the main tasks listed below:

C. Location and Geographic Boundaries

The location of this study will be limited to the boundaries of the Marsh Creek Watershed. Students from other portions of East Contra Costa County will be invited to participate in the study.

D. Expected Benefits

The Watershed Science Program will not entail any physical modifications to the environment that will benefit target species. The study will result in the increased knowledge and understanding necessary to make informed management decisions that will benefit native species. Data collected and knowledge developed from this study will be necessary to:

- Identify and evaluate opportunities for restoration of native fishes including Chinook salmon and Sacramento splittail, both identified as priority species in the PSP.
- Protect and improve environmental water quality in Marsh Creek, Big Break and the Western Delta.
- Manage or eradicate harmful exotic species.
- Inventory habitats for rare, threatened or endangered species.
- Inventory potential stream and riparian restoration sites.
- Develop more efficient water quality and ecological monitoring programs.
- Understand what controls flooding, pollution, and sediment loads.
- Identify Best Management Practices (BMP's).

E. Biological Justification

The western Delta is the primary habitat for numerous priority species and large concentrations of native fish, particularly splittail, have been observed in Big Break. Marsh Creek drains directly into Big Break and the Western Delta. Degradation of water quality in Marsh Creek could degrade water quality in Big Break and the Western Delta.

The lack of flooded vegetation in the Bay Delta system is a major factor limiting populations of Sacramento splittail. Restoration of floodplain habitat in the lower reaches of Marsh Creek could benefit splittail. During years when Marsh Creek floods but the main stem rivers do not flood, Marsh Creek flood plain could serve as an important source of splittail recruitment. Pacheco Creek, a similar sized watershed in Contra Costa County provides spawning habitat for splittail.

It may be possible to restore intermittent or annual runs of salmon or steelhead to Marsh Creek. Numerous historical sources describe Salmon runs in Marsh Creek. Today a drop structure in lower Marsh Creek is a barrier to upstream migration in most hydrologic conditions, but several unverified local anecdotes report Salmon in Marsh Creek as far upstream as Brentwood during wet years. Other reports describe migrating salmon blocked below this drop structure. Habitat in Marsh creek or its tributaries may be suitable for spawning. Well shaded portions of Marsh creek just above Brentwood support perennial flows in most years. Although the mainstem of Marsh Creek is dammed at the Marsh Creek Reservoir site, the headwaters of Sand Creek in Black Diamond Regional park are intermittently accessible and flowing for several months each year.

Although western pond turtles and red legged frogs are nearly extirpated from the San Joaquin Valley, they still persist in the Marsh Creek Watershed (Jennings and Holland, pers. Com. 19997).

Red legged frogs are currently confined to the headwaters but western bond turtles have recently been observed in Marsh creek flood control channel at Big Break. Preserving and restoring Marsh Creek will provide a potential migration corridor between the headwaters and the Delta.

Introduction of exotic species into Marsh Creek could harm native species in both Marsh Creek and the Western Delta. This project will identify sources of exotic species and help educate watershed residents about the exotic species problem In preparing this proposal we visited one educational institution that maintains several exotic herptofauna species from all over the world for educational purposes. They proudly informed us that they had recently "restored" Bullfrogs to Marsh Creek. Red legged frogs and western pond turtles still exist in the Marsh Creek watershed but predation by bullfrogs and other factors have nearly extirpated them from the entire San Joaquin Valley. Hopefully, this project will make some progress in the battle to educate citizens about the threats from invasive exotic species. Ideally, this will result in a local initiative to manage and reduce exotic plant and animal species in the Marsh Creek watershed.

Preserving or restoring Marsh Creek will provide an important corridor for many aviafauna and terrestrial species. The applicants recently observed a red fox along the lower end of Marsh Creek. Other mammals including Tule Elk have been observed nearby. A small refuge for legless lizards exists near the mouth of the Creek. Riparian forest restored based on information derived from this project may support nesting and migratory habitat for neo-tropical birds.

F. Monitoring and Data Evaluation

This project is focused on collecting and evaluating data necessary to make informed decisions about the future management and restoration of Marsh Creek. Josh Collins, a member of the CMARP panel, will review the data collection protocol. Data collected will be posted on the web for use by agency scientists, school groups, and other interested parties. A panel of relevant experts will be established to review the final report and recommendations.

Spatial Data will be entered into SFEI's Eco Atlas.

G. Implementability

This project will most likely not require any environmental review under CEQA, NEPA, or other environmental laws.

This project is organized and supported by local interests. It will be managed by the Delta Science Center, a non-profit 501C-3 organization. Numerous local groups, interests, and institutions are represented on the Board of the Delta Science Center including local agriculture, local developers, CCWD, EBRPD, Audubon, Sierra Club, etc.

The Delta Science Center currently works with many local schools and intends to actively integrate local teachers and students into the project. A few local teachers will receive special training on data collection and evaluation from experts at SFEI and NHI.

Other local interests, including Brentwood City Officials, enthusiastically support the project. If funded, the project applicants will actively seek out other members of the community for participation and input on the project.

V. Budget Costs

This proposal is for phase I and II funding only. A detailed accounting of phase I tasks and costs is attached in Table IV-1. A summary and rough cost estimate by phases is outlined below.

Phase	Cost
Phase I: Recognizance and Basic Data Collection	$56,704
Phase II: Detailed Investigation	$167,090
Total before Cost Share	$223,794
Total Requested after Cost Share	$163,474
Phase III: Ongoing Investigation and Monitorying	uncertain

East Bay Regional Park Districts will contribute 36,000 in in kind services associated with GIS and interpretive and educational programs focused on the Watershed Science Program.

Chriss Hoagland, an biology professor at Los Medanos Community College will work on the project during her sabatical under the auspices of the Delta Science Center. Her in kind services total $24,520.

A. Applicant Qualifications

The *Delta Science Center* will be the lead contractor and fiscal agent. The EBRPD will conduct educational and interpretive programs. The San Francisco Estuary Institute and NHI will train DSC, EBRPD staff, and local teachers in data collection and analysis. NHI will serve as a special consultant to the Delta Science Center in the management of the project. NHI staff will supervise collection and analysis of much of the hydrologic and geomorphic data.

Although relatively new *The Delta Science Center* is well established in East Contra Costa County. Multiple regional organizations and agencies are represented on the Board, and DSC has developed a strong program working with local schools. *Stephen Barbata* serves as the Executive Director. Mr. Barbata would serve as fiscal agent and project director for this project. He brings twenty-five years of experience in the design, building and funding of educational institutions. In his roles as project manager/director and executive director, he successfully developed the Coyote Point Museum for Environmental Education in San Mateo – *Communities and Ecosystems*, the permanent natural sciences galleries of the Oakland Museum – *Wild California*, a major renovation of the North American Hall at the California Academy of Sciences – and most recently the Lindsay Museum in Walnut Creek where he was also responsible for the successful completion of its $8 million capital campaign. Chriss Hoagland is a biology professor at Los Medanos Community College. During her sabattical she will research Marsh Creek under the auspices of the Delta Science Center.

Michael Moran is currently a Naturalist with *the East Bay Regional Park District*, implementing a comprehensive program of natural and cultural interpretation and education of the California Delta and East Contra Costa County. He has 16 years of experience in the environmental education field, including extensive work as a field and classroom interpreter and teacher trainer. He has worked with the National Park Service, California State Parks, United Nations' Man and the Biosphere Program, Oceanic Society's Procject O.C.E.A.N., Yosemetie National Institutes and several private

and public schools. He has led whale watech and natural history expeditions in California, Alaska, Washington, New England, British Columbia, and Hudson Bay for 12 years. He has an MS from UC Berkeley is in Wildland Resource Science and focused on salmon restoration efforts in the San Joaquin River basin. He also holds a BA in Geography and Human Environmental Studies and a BA in Recreation and Leisure Studies from San Francisco State University.

Greg Thomas is a specialist in natural resources law and management institutions and the CEO of *NHI*, a non-profit environmental law and technical consulting firm. Thomas has extensive experience in managing multi-disciplinary teams. The *Natural Heritage Institute* will serve as a special consultant to DSC and provide project management and planning services. He will be assisted in the day to day management of the project by *David Fullerton, John Cain, and David Purkey*. David Fullerton has two graduate degrees in science and many years of experience working toward sound management and restoration of water resources. David Purkey is currently completing his Ph.D. in hydrology and U.C. Davis. John Cain will manage the day to day aspects of the project, he has a graduate degree in environmental planning in UC Berkeley and has over eight years of research and management experience in the of aquatic habitat restoration. He performed similar hydrologic and geomorphic analysis on Cache Creek and the San Joaquin River below Friant Dam and is currently a principal investigator on an EPA project on Carmen Creek in the N. Fork of the Feather River.

NHI and San Francisco Estuary Institute Board member, *Luna Leopold, Ph.D.* is a world renowned expert in hydrology and fluvial systems. He will advise on the project.

Dr. Joshua Collins of the *San Francisco Estuary Institute* received his Ph.D. in Entomological Sciences at the University of California at Berkeley and has done post-doctoral studies in Geography and Ecology at the University of California at Berkeley and Davis. Dr. Collins is a landscape ecologist and regional ecological planner with special expertise in the evolution and natural maintenance of streams and wetlands. He has been a professional ecologist in the Public Utilities Industry and a consulting ecologist in private practice for design and review of stream and wetland restoration projects. Since Dr. Collins joined the staff of SFEI in 1993, he has been the principal author and lead scientist for the Bay Area Wetlands Monitoring Plan, the Bay Area Watersheds Science Plan, the Bay Area EcoAtlas, and the Bay Area Regional Wetlands Ecosystem Goals Project. Dr. Collins oversees the SFEI Wetlands Science Program and the GIS laboratory, and co-manages the Watersheds Science Program.

Laurel Colllins of the *SFEI* has over 15 years experience in research on riverine and wetland systems. She is particularly skilled at training people in field data collection techiques.

VII. Compliance with standard terms and conditions

The terms and conditions are agreeable to the applicant. Required forms are attached.

Table IV-1, Cost Breakdown for Phase 1 and 2, Category 3 - Marsh Creek Watershed Science Program
Project Totals: Summary Sheet

Project Phase and Task	Direct Labor Hours	Direct Salary and Benefits	Overhead Labor (General Administration and Fee), $	Labor Subtotal by Task, dollars	Sevice Contracts, Dollars	Material and Acquisition Contracts, Dollars	Miscellaneous nad Other Direct Costs, Dollars	Total Cost	
Phase 1- Reconisance and Basic Data Collection									
1. Public orientation and training		0	0	0					0
a. brief local schools, relevant jurisdictions and citizens	120	4400	2960	7360	0	0	0		7360
b. select and train core group of teachers and citizens.	152	5324	5287	10611		0	0		10611
2. Build geographic information system		0	0	0		0	0		0
a. develop base map	15	678	424	1102	1100	0	0		2202
b.digitize maps created in other tasks	105	4403	4922	9325	6000	0	0		15325
3. Cultural assesment		0	0	0		0	0		0
a. evaluate demographics, identify community centers	34	1598	603	2201		0	0		2201
b. map jurisdictional boundaries	20	960	240	1200		0	0		1200
c. identify and map relevant government services	37	1759	542	2301		0	0		2301
4. Physical and Biological data preparation and analysis		0	0	0		0	0		0
a. compile available environmental maps and data	80	3755	1448	5203		0	0		5203
b. digitize watersheds and sub-watersheds	10	480	120	600		0	0		600
c. assemble and analyze meterologic and hydrologic data	40	1920	480	2400		0	0		2400
d. estimate extent of sewered areas and water service	15	720	180	900		0	0		900
e. identify major historical hydrologic events	10	480	120	600		0	0		600
f. plot longitudinal profile	10	480	120	600		0	0		600
5. Field recoinasance and preliminary survey		0	0	0		0	0		0
a. sketch cross sections of representative reach types	40	1920	480	2400		0	0		2400
b. pebble counts and bed material analysis	16	768	192	960		0	0		960
c. classify channel into representative sections	16	734	387	1121		0	0		1121
d. map locations of engineered structures	6	288	72	360		0	0		360
e. map extent of perrenial flows, large pools, etc.	6	288	72	360		0	0		360
Phase II - Detailed Investigation		0	0	0		0	0		0
6. Map and aerial photo analysis		0	0	0		0	0		0
a. map and describe extent of past floods	28	1327	434	1761		0	0		1761
b. Map extent of past wildfires and vegetation change	69	3278	1023	4301		0	0		4301
c. Map major land-use changes	27	1279	422	1701		0	0		1701
d. Compile DEM	5	240	60	300		0	0		300
e. Drainage area estimates and analysis	16	734	387	1121		0	0		1121
f. Riparian vegetation analysis	65	3120	780	3900		0	0		3900
g. Calculate storm drain area analysis	34	1598	603	2201		0	0		2201
h. Map gullies sand landslides	29	1358	543	1901		0	0		1901
7. Coordinate public data collection efforts		0	0	0		0	0		0
a. develop data collection and reporting protocol	30	1185	1825	3010		0	0		3010
b. coordinate "core group"	60	1860	1860	3720		0	0		3720
c. assist "core group" in data collection.	600	22850	17783	40633		0	0		40633
d. train core group in standard reporting	88	3374	4366	7740		0	0		7740
e. organize data collection	220	8520	4920	13440		0	0		13440
8. Field mapping and measurements		0	0	0		0	0		0
a. habitat mapping	92	4144	2667	6811		0	0		6811
b. vegetation mapping	130	6155	2048	8203		0	0		8203
c. survey cross sections, establish permanent bench marks	64	3072	768	3840		0	0		3840
d.detailed geomorphic maps of representative reaches	64	2732	2721	5453		0	0		5453
e. water quality analysis (including rapid bioassments)	200	7560	4680	12240		0	0		12240
9. Public presentation and reporting		0	0	0		0	0		0
a. prepare a public report	165	7198	2984	10182		0	800		10982
b. prepare a technical report	160	7510	2897	10407		0	1500		11907
c. develop web site for public access to data and maps	80	3500	1340	4840		0	0		4840
d. present at public meetings and interpretive tours	190	6953	5292	12245		0	0		12245
e. solicit recommendations for future steps.	80	3500	1340	4840		0	0		4840
Total Costs - With no Cost Sharing	3228	134000	80393	214393	7100	0	2300	0	223793
Total Costs - With Cost Sharing									163,474

Table IV-1, Cost Breakdown for Phase 1 and 2, Category 3 - Marsh Creek Watershed Science Program
Delta Science Center Summary Sheet 1

Project Phase and Task	Direct Labor Hours	Direct Salary and Benefits	Overhead Labor (General Administration and Fee), $	Labor Subtotal by Task, dollars	Sevice Conracts, Dollars	Material and Acquisition Contracts, Dollars	Miscellaneous nad Other Direct Costs, Dollars	Total Cost
Phase 1- Reconisance and Basic Data Collection								
1. Public orientation and training								
a. brief local schools, relevant jurisdictions and citizens	40	1920	480	2400				2400
b. select and train core group of teachers and citizens.	20	960	240	1200				1200
2. Build geographic information system		0	0	0				0
a. develop base map		0	0	0				0
b.digitize maps created in other tasks		0	0	0				0
3. Cultural assesment		0	0	0				0
a. evaluate demographics, identify community centers	15	720	180	900				900
b. map jurisdictional boundaries		0	0	0				0
c. identify and map relevant government services	10	480	120	600				600
4. Physical and Biological data preparation and analysis		0	0	0				0
a. compile available environmental maps and data	40	1920	480	2400				2400
b. digitize watersheds and sub-watersheds		0	0	0				0
c. assemble and analyze meterologic and hydrologic data		0	0	0				0
d. estimate extent of sewered areas and water service		0	0	0				0
e. identify major historical hydrologic events		0	0	0				0
f. plot longitudinal profile		0	0	0				0
5. Field recoinasance and preliminary survey		0	0	0				0
a. sketch cross sections of representative reach types	40	1920	480	2400				2400
b. pebble counts and bed material analysis	8	384	96	480				480
c. classify channel into representative sections	6	288	72	360				360
d. map locations of engineered structures	6	288	72	360				360
e. map extent of perrenial flows, large pools, etc.	6	288	72	360				360
Phase II - Detailed Investigation		0	0	0				0
6. Map and aerial photo analysis (GIS)		0	0	0				0
a. map and describe extent of past floods	10	480	120	600				600
b. Map extent of past wildfires and vegetation change	65	3120	780	3900				3900
c. Map major land-use changes	20	960	240	1200				1200
d. Compile DEM		0	0	0				0
e. Drainage area estimates and analysis		0	0	0				0
f. Riparian vegetation analysis	50	2400	600	3000				3000
g. Calculate storm drain area analysis		0	0	0				0
h. Map gullies sand landslides		0	0	0				0
7. Coordinate public data collection efforts		0	0	0				0
a. develop data collection and reporting protocol		0	0	0				0
b. coordinate "core group"		0	0	0				0
c. assist "core group" in data collection.	100	4800	1200	6000				6000
d. train core group in standard reporting		0	0	0				0
e. organize data collection	100	4800	1200	6000				6000
8. Field mapping and measurements		0	0	0				0
a. habitat mapping	60	2880	720	3600				3600
b. vegetation mapping	120	5760	1440	7200				7200
c. survey cross sections, establish permanent bench m	32	1536	384	1920				1920
d.detailed geomorphic maps of representative reaches	24	1152	288	1440				1440
e. water quality analysis (including rapid bioassments)	80	3840	960	4800				4800
9. Public presentation and reporting		0	0	0				0
a. prepare a public report	40	1920	480	2400				2400
b. prepare a technical report	20	960	240	1200				1200
c. develop web site for public access to data and maps		0	0	0	5000			5000
d. present at public meetings and interpretive tours	40	1920	480	2400				2400
e. solicit recommendations for future steps.	40	1920	480	2400				2400
Total Costs - With no Cost Sharing	992	47616	11904	59520	5000	0	0	64520
Total Costs - With Cost Sharing	592	28416	7104	35520	5000	0	0	40520

Table IV-1, Cost Breakdown for Phase 1 and 2, Category 3 - Marsh Creek Watershed Science Program
SF Estuary Institute: Summarry Sheet 2

Project Phase and Task	Direct Labor Hours	Direct Salary and Benefits	Overhead Labor (General Administration and Fee), $	Labor Subtotal by Task, dollars	Sevice Conracts, Dollars	Material and Acquisition Contracts, Dollars	Miscellaneous nad Other Direct Costs, Dollars	Total Cost
Phase 1- Reconisance and Basic Data Collection								
1. Public orientation and training		0	0	0				0
a. brief local schools, relevant jurisdictions and citizens		0	0	0				0
b. select and train core group of teachers and citizens.	32	1264	1947	3211				3211
2. Build geographic information system		0	0	0				0
a. develop base map	5	198	304	502				502
b.digitize maps created in other tasks	75	2963	4562	7525				7525
3. Cultural assesment		0	0	0				0
a. evaluate demographics, identify community centers	4	158	243	401				401.3
b. map jurisdictional boundaries		0	0	0				0
c. identify and map relevant government services	2	79	122	201				200.7
4. Physical and Biological data preparation and analysis		0	0	0				0
a. compile available environmental maps and data	10	395	608	1003				1003
b. digitize watersheds and sub-watersheds		0	0	0				0
c. assemble and analyze meterologic and hydrologic data		0	0	0				0
d. estimate extent of sewered areas and water service		0	0	0				0
e. identify major historical hydrologic events		0	0	0				0
f. plot longitudinal profile		0	0	0				0
5. Field recoinasance and preliminary survey		0	0	0				0
a. sketch cross sections of representative reach types		0	0	0				0
b. pebble counts and bed material analysis		0	0	0				0
c. classify channel into representative sections	4	158	243	401				401.3
d. map locations of engineered structures		0	0	0				0
e. map extent of perrenial flows, large pools, etc.		0	0	0				0
Phase II - Detailed Investigation		0	0	0				0
6. Map and aerial photo analysis		0	0	0				0
a. map and describe extent of past floods	2	79	122	201				200.7
b. Map extent of past wildfires and vegetation change	4	158	243	401				401.3
c. Map major land-use changes	2	79	122	201				200.7
d. Compile DEM		0	0	0				0
e. Drainage area estimates and analysis	4	158	243	401				401.3
f. Riparian vegetation analysis		0	0	0				0
g. Calculate storm drain area analysis	4	158	243	401				401.3
h. Map gullies sand landslides	4	158	243	401				401.3
7. Coordinate public data collection efforts		0	0	0				0
a. develop data collection and reporting protocol	30	1185	1825	3010				3010
b. coordinate "core group"		0	0	0				0
c. assist "core group" in data collection.	100	3950	6083	10033				10033
d. train core group in standard reporting	60	2370	3650	6020				6020
e. organize data collection		0	0	0				0
8. Field mapping and measurements		0	0	0				0
a. habitat mapping	32	1264	1947	3211				3211
b. vegetation mapping	10	395	608	1003				1003
c. survey cross sections, establish permanent bench marks		0	0	0				0
d.detailed geomorphic maps of representative reaches	40	1580	2433	4013				4013
e. water quality analysis (including rapid bioassments)		0	0	0				0
9. Public presentation and reporting		0	0	0				0
a. prepare a public report	5	198	304	502				501.7
b. prepare a technical report	20	790	1217	2007				2007
c. develop web site for public access to data and maps		0	0	0				0
d. present at public meetings and interpretive tours	15	593	912	1505				1505
e. solicit recommendations for future steps.		0	0	0				0
Total Costs - With no Cost Sharing	464	18328	28225	46553				46553
Total Costs - With Cost Sharing	464	18328	28225.12	46553.1	0	0	0	46553

Table IV-1, Cost Breakdown for Phase 1 and 2, Category 3 - Marsh Creek Watershed Science Program
EBRPD: Summary Sheet 3

Project Phase and Task	Direct Labor Hours	Direct Salary and Benefits	Overhead Labor (General Administration and Fee), $	Labor Subtotal by Task, dollars	Sevice Conracts, Dollars	Material and Acquisition Contracts, Dollars	Miscellaneous nad Other Direct Costs, Dollars	Total Cost
Phase 1- Reconisance and Basic Data Collection								
1. Public orientation and training								
a. brief local schools, relevant jurisdictions and citizens	80	2480	2480	4960				4960
b. select and train core group of teachers and citizens.	100	3100	3100	6200				6200
2. Build geographic information system		0	0	0				0
a. develop base map		0	0	0	$1,000			1000
b.digitize maps created in other tasks		0	0	0	$4,000			4000
3. Cultural assesment		0	0	0				0
a. evaluate demographics, identify community centers		0	0	0				0
b. map jurisdictional boundaries		0	0	0				0
c. identify and map relevant government services		0	0	0				0
4. Physical and Biological data preparation and analysis		0	0	0				0
a. compile available environmental maps and data		0	0	0				0
b. digitize watersheds and sub-watersheds		0	0	0				0
c. assemble and analyze meterologic and hydrologic data		0	0	0				0
d. estimate extent of sewered areas and water service		0	0	0				0
e. identify major historical hydrologic events		0	0	0				0
f. plot longitudinal profile		0	0	0				0
5. Field recoinasance and preliminary survey		0	0	0				0
a. sketch cross sections of representative reach types		0	0	0				0
b. pebble counts and bed material analysis		0	0	0				0
c. classify channel into representative sections		0	0	0				0
d. map locations of engineered structures		0	0	0				0
e. map extent of perrenial flows, large pools, etc.		0	0	0				0
Phase II - Detailed Investigation		0	0	0				0
6. Map and aerial photo analysis		0	0	0				0
a. map and describe extent of past floods		0	0	0				0
b. Map extent of past wildfires and vegetation change		0	0	0				0
c. Map major land-use changes		0	0	0				0
d. Compile DEM		0	0	0				0
e. Drainage area estimates and analysis		0	0	0				0
f. Riparian vegetation analysis		0	0	0				0
g. Calculate storm drain area analysis		0	0	0				0
h. Map gullies sand landslides		0	0	0				0
7. Coordinate public data collection efforts		0	0	0				0
a. develop data collection and reporting protocol		0	0	0				0
b. coordinate "core group"	60	1860	1860	3720				3720
c. assist "core group" in data collection.	300	9300	9300	18600				18600
d. train core group in standard reporting	20	620	620	1240				1240
e. organize data collection	120	3720	3720	7440				7440
8. Field mapping and measurements		0	0	0				0
a. habitat mapping		0	0	0				0
b. vegetation mapping		0	0	0				0
c. survey cross sections, establish permanent bench marks		0	0	0				0
d.detailed geomorphic maps of representative reaches		0	0	0				0
e. water quality analysis (including rapid bioassments)	120	3720	3720	7440				7440
9. Public presentation and reporting		0	0	0				0
a. prepare a public report	40	1240	1240	2480				2480
b. prepare a technical report		0	0	0				0
c. develop web site for public access to data and maps	20	620	620	1240				1240
d. present at public meetings and interpretive tours	120.00	3720.00	3720.00	7440.00				7440
e. solicit recommendations for future steps.	20	620	620	1240				1240
Total Costs - With no Cost Sharing	1000	31,000.00	31,000.00	62,000.00	5,000.00			67,000
Total Costs - With Cost Sharing	500	15500	15500	31000	0.00			31000

Table IV-1, Cost Breakdown for Phase 1 and 2, Category 3 - Marsh Creek Watershed Science Program
NHI Summary Sheet 4

Project Phase and Task	Direct Labor Hours	Direct Salary and Benefits	Overhead Labor (General Administration and Fee), $	Labor Subtotal by Task, dollars	Sevice Conracts, Dollars	Material and Acquisition Contracts, Dollars	Miscellan-eous nad Other Direct Costs, Dollars	Total Cost
Phase 1- Reconisance and Basic Data Collection				0				0
1. Public orientation and training				0				0
a. brief local schools, relevant jurisdictions and citizens				0				0
b. select and train core group of teachers and citizens.				0				0
2. Build geographic information system				0				0
a. develop base map	10	480	120	600	$100			700
b.digitize maps created in other tasks	30	1440	360	1800	$2,000			3800
3. Cultural assesment		0	0	0				0
a. evaluate demographics, identify community centers	15	720	180	900				900
b. map jurisdictional boundaries	20	960	240	1200				1200
c. identify and map relevant government services	25	1200	300	1500				1500
4. Physical and Biological data preparation and analysis		0	0	0				0
a. compile available environmental maps and data	30	1440	360	1800				1800
b. digitize watersheds and sub-watersheds	10	480	120	600				600
c. assemble and analyze meterologic and hydrologic dat	40	1920	480	2400				2400
d. estimate extent of sewered areas and water service	15	720	180	900				900
e. identify major historical hydrologic events	10	480	120	600				600
f. plot longitudinal profile	10	480	120	600				600
5. Field recoinasance and preliminary survey		0	0	0				0
a. sketch cross sections of representative reach types		0	0	0				0
b. pebble counts and bed material analysis	8	384	96	480				480
c. classify channel into representative sections	6	288	72	360				360
d. map locations of engineered structures		0	0	0				0
e. map extent of perrenial flows, large pools, etc.		0	0	0				0
Phase II - Detailed Investigation		0	0	0				0
6. Map and aerial photo analysis		0	0	0				0
a. map and describe extent of past floods	16	768	192	960				960
b. Map extent of past wildfires and vegetation change		0	0	0				0
c. Map major land-use changes	5	240	60	300				300
d. Compile DEM	5	240	60	300				300
e. Drainage area estimates and analysis	12	576	144	720				720
f. Riparian vegetation analysis	15	720	180	900				900
g. Calculate storm drain area and analysis	30	1440	360	1800				1800
h. Map gullies sand landslides	25	1200	300	1500				1500
7. Coordinate public data collection efforts		0	0	0				0
a. develop data collection and reporting protocol		0	0	0				0
b. coordinate "core group"		0	0	0				0
c. assist "core group" in data collection.	100	4800	1200	6000				6000
d. train core group in standard reporting	8	384	96	480				480
e. organize data collection		0	0	0				0
8. Field mapping and measurements		0	0	0				0
a. habitat mapping		0	0	0				0
b. vegetation mapping		0	0	0				0
c. survey cross sections, establish permanent bench m	32	1536	384	1920				1920
d.detailed geomorphic maps of representative reaches		0	0	0				0
e. water quality analysis (including rapid bioassments)		0	0	0				0
9. Public presentation and reporting		0	0	0				0
a. prepare a public report	80	3840	960	4800			800	5600
b. prepare a technical report	120	5760	1440	7200			1500	8700
c. develop web site for public access to data and maps	60	2880	720	3600				3600
d. present at public meetings and interpretive tours	15	720	180	900				900
e. solicit recommendations for future steps.	20	960	240	1200				1200
Total Costs - With no Cost Sharing	772	37056	9264	46320				46320
Total Costs - With Cost Sharing	772	37056	9264	46320	2100	0	2300	50720

Agreement No. _____

Exhibit _____

STANDARD CLAUSES— SERVICE & CONSULTANT SERVICE CONTRACTS FOR $5,000 & OVER WITH NONPUBLIC ENTITIES

Workers' Compensation Clause. Contractor affirms that it is aware of the provisions of Section 3700 of the California Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self insurance in accordance with the provisions of that Code, and Contractor affirms that it will comply with such provisions before commencing the performance of the work under this contract.

Claims Dispute Clause. Any claim that Contractor may have regarding the performance of this agreement including, but not limited to, claims for additional compensation or extension of time, shall be submitted to the Director, Department of Water Resources, within thirty days of its accrual. State and Contractor shall then attempt to negotiate a resolution of such claim and process an amendment to this agreement to implement the terms of any such resolution.

National Labor Relations Board Clause. In accordance with Public Contract Code Section 10296, Contractor declares under penalty of perjury that no more than one final, unappealable finding of contempt of court by a federal court has been issued against the Contractor within the immediately preceding two-year period because of Contractor's failure to comply with an order of a federal court which orders Contractor to comply with an order of the National Labor Relations Board.

Nondiscrimination Clause. During the performance of this contract, the recipient, contractor and its subcontractors shall not deny the contract's benefits to any person on the basis of religion, color, ethnic group identification, sex, age, physical or mental disability, nor shall they discriminate unlawfully against any employee or applicant for employment because of race, religion, color, national origin, ancestry, physical handicap, mental disability, medical condition, marital status, age (over 40), or sex. Contractor shall insure that the evaluation and treatment of employees and applicants for employment are free of such discrimination. Contractor shall comply with the provisions of the Fair Employment and Housing Act (Government Code Section 12900 et seq.), the regulations promulgated thereunder (California Administrative Code, Title 2, Sections 7285.0 et seq.), the provisions of Article 9.5, Chapter 1, Part 1, Division 3, Title 2 of the Government Code (Government Code Sections 11135 - 11139.5), and the regulations or standards adopted by the awarding State agency to implement such article. Contractor or recipient shall permit access by representatives of the Department of Fair Employment and Housing and the Awarding State agency upon reasonable notice at any time during the normal business hours, but in no case less than 24 hours notice, to such of its books, records, accounts, other sources of information and its facilities as said Department or Agency shall require to ascertain compliance with this clause. Recipient, contractor and its subcontractors shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other agreement. The Contractor shall include the nondiscrimination and compliance provisions of this clause in all subcontracts to perform work under the contract.

Statement of Compliance. The contractor's signature affixed hereon and dated shall constitute a certification under penalty of perjury under the laws of the State of California that the Contractor has, unless exempted, complied with the nondiscrimination program requirements of Government Code Section 12990 and Title 2, California Code of Regulations, Section 8103.

Performance Evaluation. Contractor's performance under this contract will be evaluated after completion. The evaluation will be filed with the Department of General Services.

Availability of Funds. Work to be performed under this contract is subject to availability of funds through the State's normal budget process.

Audit Clause. The contracting parties shall be subject to the examination and audit of the Auditor General for a period of three years after final payment under the contract. (Government Code Section 10532).

Reimbursement Clause. If applicable, travel and per diem expenses to be reimbursed under this contract shall be at the same rates the State provides for unrepresented employees in accordance with the provisions of Title 2, Chapter 3, of the California Code of Regulations. Contractor's designated headquarters for the purpose of computing such expenses shall be: _____.

86 Orchard Estates Drive
Walnut Creek, CA 94598

Drug-Free Workplace Certification. By signing this contract, the contractor or grantee hereby certifies under penalty of perjury under the laws of the State of California that the contractor or grantee will comply with the requirements of the Drug-Free Workplace Act of 1990 (Government Code Section 8350 et seq.) and will provide a drug free workplace by taking the following actions:

1. Publish a statement notifying employees that unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance is prohibited and specifying actions to be taken against employees for violations, as required by Government Code Section 8355(a).

2. Establish a Drug-Free Awareness Program as required by Government Code Section 8355(b), to inform employees of all of the following:

   (a) The dangers of drug abuse in the workplace,
   (b) The person's or organization's policy of maintaining a drug-free workplace,
   (c) Any available counseling, rehabilitation and employee assistance programs, and
   (d) Penalties that may be imposed upon employees for drug abuse violations.

3. Provide, as required by Government Code Section 8355(c), that every employee who works on the proposed contract or grant:

   (a) Will receive a copy of the company's drug-free policy statement, and
   (b) Will agree to abide by the terms of the company's statement as a condition of employment on the contract or grant.

Failure to comply with these requirements may result in suspension of payments under the contract or termination of the contract or both and the contractor or grantee may be ineligible for award of any future contracts if the department determines that any of the following has occurred: (1) the contractor or grantee has made false certification, or (2) violates the certification by failing to carry out the requirements as noted above.

Priority Hiring Considerations. For contracts in excess of $200,000, the contractor shall give priority consideration in filling vacancies in positions funded by the contract to qualified recipients of aid under Welfare and Institutions Code Section 11200. (Public Contract Code Section 10353).

The Delta Science Center understands and can comply with all standard clauses.

ITEM 7

ONDISCRIMINATION COMPLIANCE STATEMENT

MPANY NAME

THE DELTA SCIENCE CENTER At Big Break

The company named above (hereinafter referred to as "prospective contractor") hereby certifies, unless specifically exempted, compliance with Government Code Section 12990 (a-f) and California Code of Regulations, Title 2, Division 4, Chapter 5 in matters relating to reporting requirements and the development, implementation and maintenance of a Nondiscrimination Program. Prospective contractor agrees not to unlawfully discriminate, harass or allow harassment against any employee or applicant for employment because of sex, race, color, ancestry, religious creed, national origin, disability (including HIV and AIDS), medical condition (cancer), age, marital status, denial of family and medical care leave and denial of pregnancy disability leave.

CERTIFICATION

I, the official named below, hereby swear that I am duly authorized to legally bind the prospective contractor to the above described certification. I am fully aware that this certification, executed on the date and in the county below, is made under penalty of perjury under the laws of the State of California.

FICIAL'S NAME

Stephen Barbata

TE EXECUTED	EXECUTED IN THE COUNTY OF
June 30, 1998	Contra Costa

OSPECTIVE CONTRACTOR'S SIGNATURE

Stephen Barbata

OSPECTIVE CONTRACTOR'S TITLE

Executive Director

OSPECTIVE CONTRACTOR'S LEGAL BUSINESS NAME

THE DELTA SCIENCE CENTER At Big Break

ITEM 10

Agreement No. _____

Exhibit _____

NONCOLLUSION AFFIDAVIT TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID FOR PUBLIC WORKS

STATE OF CALIFORNIA)
)ss
COUNTY OF Contra Costa)

STEPHEN BARBATA (name), being first duly sworn, deposes and says that he ~~or she~~ is EXECUTIVE DIRECTOR (position title) of THE DELTA SCIENCE CENTER AT BIG BREAK (the bidder),

the party making the foregoing bid that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

DATED: June 30, 1998

By Stephen Barbata
(person signing for bidder)

DEBORAH J. REYNOLDS
Commission # 1165920
Notary Public - California
Contra Costa County
My Comm. Expires Jan 12, 2002

(Notarial Seal)

Subscribed and sworn to before me on
June 30, 1998

Deborah J. Reynolds
(Notary Public)

Letters of Support

Signatory Agencies:

Alameda County

Contra Costa County

Contra Costa Water District

Department of Fish and Game

East Bay Regional Park District

East Bay Municipal Utility District

ALAMEDA-CONTRA COSTA BIODIVERSITY WORKING GROUP

July 1, 1998

Mr. Stephen Barbata, Executive Director
Delta Science Center at Big Break
P.O. Box 1105
Oakley, CA 94561

Re: Delta Science Center Proposal for CALFED Funds to Initiate a Watershed Science Program on Marsh Creek

Dear Mr. Barbata:

The Steering Committee of the Alameda-Contra Costa Biodiversity Working Group("BWG") supports the proposal made by the Delta Science Center to obtain funding from the CALFED Bay-Delta Program to support initiation of a Watershed Science Program on Marsh Creek in eastern Contra Costa County. The Steering Committee consists of staff from the six agencies which sponsor the BWG, including the following five agencies which are directly involved with BWG activities in eastern Alameda and Contra Costa County: Alameda County, the California Department of Fish and Game, Contra Costa County, the Contra Costa Water District, and the East Bay Regional Park District. The Delta Science Center's proposal for Marsh Creek could complement the on-going work of the BWG in this area, improving the base of natural resource information and public involvement in this portion of Contra Costa County by contributing a hydrological perspective distinct from the biology-focused issues being addressed via the BWG.

The BWG Steering Committee has initiated a study of biological resources and land use in a 227,000 acre area of eastern Alameda and Contra Costa Counties, including the entire upper watershed of Marsh Creek. To ensure that this effort benefits from thorough public involvement, the Steering Committee has convened a Task Force with broad representation of agency (local, state, and federal), environmental, agricultural, developer, and community interests to complete this study by consensus. The study will include technical information, possibly including data on vegetation types, key habitat features, species sightings, and proposed land uses. Perhaps more important, the study will also include pragmatic, politically-viable consensus recommendations for improving the process of conserving biological resources. The Marsh Creek Watershed Science Program proposed by the Delta Science Center could benefit the BWG effort by providing another source of public involvement in natural resource issues as well as valuable technical information on water quality,

aquatic biological resources, channel form, and other relevant subjects. Presumably, the BWG study and public process could present similar benefits to the Watershed Science effort. Recognizing these potential mutual benefits, as well as the potential for the Watershed Science Program to contribute to the identification and enhancement of the biological resources of the San Francisco Bay-Delta, the Steering Committee supports the Delta Science Center's Marsh Creek proposal to CALFED.

Should you have any questions on this letter or on the activities of the Alameda-Contra Costa County Biodiversity Working Group, please feel free to call me at (925) 335-1227.

Sincerely,

John Kopchik, Steering Committee Member
Planner, Contra Costa County Community Development Department

j:jkopc\john-old\bddscsup.let

CITY OF BRENTWOOD

June 25, 1998

Stephen Barbata
86 Orchard Estates Drive
Walnut Creek, CA 94598

Dear Stephen:

I have read over your draft proposal to use CALFED funds to create a Watershed Science Program on Marsh Creek.

This is a great idea! Marsh Creek is the backbone of our City's open space and trail system, it truly is where our residents come together. By increasing the Science Education Programs around the Creeks, it means a better informed community and that translates into a heightened level of attention to the creeks, water quality and the protection of the Marsh Creek Watershed.

The City of Brentwood enthusiastically supports the effort, please let us know what we can do to see this proposal translated into reality. Best wishes.

Sincerely

John Morrill
Mayor, City of Brentwood

Attachments: Draft Proposal for CALFED Funds to Initiate a Watershed Science Program on Marsh Creek

CC: Mayor and City Council

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LOS MEDANOS COLLEGE

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Contra Costa
Community College
District

June 30, 1998

Mr. Stephen Barbata
Executive Director
Delta Science Center

Dear Mr. Barbata:

I have had the opportunity to review the proposal to "Initiate a Watershed Science Program on Marsh Creek". The proposed project represents an excellent opportunity to extend and strengthen field study experiences in the life sciences for students and faculty from Los Medanos College and the entire Contra Costa Community College District. I am confident that district faculty will embrace the plan to further their collaboration with the various educational partners of the Delta Science Center at Big Break.

As you know, a member of the Los Medanos College biological sciences faculty has been awarded a full-semester sabbatical leave during 1998-99 which is focused primarily on acquiring scientific data on the Marsh Creek watershed to further curriculum development in environmental biology in collaboration with the Delta Science Center. Further, we have affirmed our commitment to searching out ways to partner with the DSC in order to develop an off-campus site for the study of wetlands and wildlife ecology. Securing funding for the Watershed Science Program would certainly move us much closer to realizing this goal.

I am pleased to confirm our enthusiastic support for the project.

Sincerely,

Daniel W. Henry
Dean of Planning, Research, & Professional Development

ANTIOCH HIGH SCHOOL

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Stephen Barbata
Executive Director
Delta Science Center
96 Orchard Estates Drive
Walnut Creek, CA 94598
925-947-1473

June 25, 1998

Dear Mr. Barbata:

The Antioch High School Environmental Studies Academy would like very much to participate as a partner in the development of a Watershed Stewardship Program. We have read your current CALFED grant proposal and believe that the program you have described will provide a unique opportunity for our students to participate in a high quality, hands-on, community based, science program. We believe that community based environmental science programs must be an integral part of our science curriculum as they provide opportunities for our students to do "real science" and because they support our efforts to develop a "school-to career" program.

We support your efforts to expand the Delta Science Center's educational programs. Our students were very fortunate to have been given the opportunity to explore and learn about the Delta last year aboard the research ship, Superfish. This Delta Science Center program was an extraodinary opportunity for our students. The research that our students did before and after their delta journey required them to understand some of the real issues and constraints associated with resource management decisions. We are very familiar with the high quality educational programs that you have provided in the past and hope that success with this CALFED proposal will provide another opportunity for us to work together. We also appreciate your participation on Antioch High School's Environmental Studies Academy Advisory Committee. Your ability to pull many talented individuals from various organizations and agencies together facilitates program development at Antioch High School.

It is a logical next step to develop a Marsh Creek Watershed Stewardship Program as Marsh Creek is probably the last major creek in east Contra Costa County that has not been irreversibly degraded by urbanization. It is also a major creek that contributes to the San Juaquin River Delta System. It is essential that students understand the concept of watersheds such as the Marsh Creek Drainage Basin before they can fully understand our Delta ecosystem. Your desire to utilize Marsh Creek is a wise choice. We have utilized a portion of West Antioch Creek as a site for our students over the past few years because of its close proximity to our high school campus. However, West Antioch Creek, like most, has been reduced to a muddy flood conveyance channel.

Each year our creek floods, scouring it of all vegetation to be replaced with new alien weeds and grasses the following year .It is difficult for students to understand fresh water ecology under these conditions. It would be a major improvement for our students to be able to participate in monitoring and research projects at Marsh Creek and they would be providing our community a service by helping collect data on one of the last major creeks that still has a chance of being protected.

We hope you will be successful with your grant proposal as we would like to involve our students in the following way:

Field Trips

Students from our Environmental Science class will visit Marsh Creek several times during the year to collect data, both physical and biological. Students will be able to see changes, if any, due to seasons. The data will be imported into a data base that can be used for developing base lines as well as for future research projects.

Students will be given opportunities to learn about the historical perspectives associated with Marsh Creek. The East Bay Regional Park District has people that are very qualified and capable of providing this service to our students. Students will research topics that may include how native Americans utilized and impacted the watershed, the history of cattle ranching and the impacts this agricultural practice has had on the Marsh Creek Watershed, and how growing urbanization has affected Marsh Creek as an ecosystem. Because our students are part of an Academy, they remain as a team during a portion of their school day. These trips to Marsh Creek will fit nicely into our integration of their English, History, and Science curriculum.

Internships

We are currently developing unpaid internships for our Senior students. We want to provide opportunities for these students to participate in projects that require a high degree of dedication and care. We believe that many projects can be developed at Marsh Creek for these dedicated students. We hope these students will be able to do long term monitoring and research projects and that the work they complete will benefit others by providing information necessary for future restoration projects. At the end of each semester these students will present their findings to a panel of community members like yourself, possibly to the Environmental Studies Academy Advisory Committee.

We are requesting that you include the following items in your grant proposal. We believe that funding for these items is essential if we are to participate fully in your program.

Transportation

The Delta Science Center will have to provide funding for buses so that students can be transported from Antioch High School to Marsh Creek. We will need one bus for each of the three field trips. The cost for each trip is approximately $200.00

Substitutes

Two teachers, myself and Roger Macdonald (English/History) will have to travel with the students on each field trip. Funds will have to be made available to pay for our substitutes. Each substitute costs approximately $100.00.

Permanent Field Test Sites

We believe that permanent field test sites will make the task of taking samples and performing data collection more beneficial and accurate. Example sites could include testing water chemistry, collecting aquatic insects, taking debris samples, sand pits for observing animal tracks, and perhaps a weather station.

Field Equipment

We can provide some equipment, however, certain supplies and materials will have to be purchased. This equipment should be stored at a central location so that it can be used by all groups that will participate in the watershed activities.

Again, we hope that you are successful and we look forward to continuing our work together. Please let us know at Antioch High School if we can be of any assistance.

Sincerely,

Jim Hybarger

Jim Hybarger,
Environmental Science Teacher
Environmental Studies Academy
Antioch High School

Pittsburg High School

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25-Jun-98

Steve Barbata
Delta Science Center
86 Orchard Estates Dr.
Walnut Creek, CA 94598

The Pittsburg High School science department is in strong support of the Watershed Science Program on Marsh Creek. As Chair of the science department I represent 14 science teachers who are desperately seeking ways to provide 'real life' experiential science to our students. As a Master's candidate in environmental education, a member of the Program committee for the Delta Science Center, and a current recipient of a Toyota Tapestry grant in science, I have reviewed extensive research on the academic and motivational value of experiential education, and there is no question that this type of instruction is highly beneficial.

Unfortunately, the extreme financial and logistical difficulties with getting students into the field are overwhelming. The CALFED grant for the Watershed Science Program on Marsh Creek could provide the exact impetus needed to produce a powerful science experience for students at Pittsburg High School, as well as, initiate the important first steps in the proper stewardship of the Marsh Creek watershed.

Sincerely,

Dan Hanel
Science Dept. Chair
Pittsburg High School
250 School St.
Pittsburg, CA 94565

DAINTY CENTER
WILLOW WOOD SCHOOL

"Train up a child in the way he should go; and when he is old, he will not depart from it."
PROVERBS 22:6

To: Steve Barbata
Fr: Shawn Guinn
Subj: Marsh Creek Watershed Science Program
Date: June 25, 1998

Dear Steve,

Thank you for sharing your Marsh Creek Watershed Science Program proposal with me at our recent meeting. As a long time local politician, educator, and environmental activist for the Delta, I sincerely appreciate the efforts you are making to focus attention and resources on the Marsh Creek. By pulling all of the available resources together, I am confident that the detrimental effects of years of mismanagement can be reversed. You have my complete support on this project and I look forward to working with you in every possible capacity.

Sincerely,

Shawn Guinn

Shawn Guinn
Form Brentwood City Council Member
Owner/Director of Dainty Center/Willow Wood School
Chair: Brentwood Creek and Trail Advising Committee

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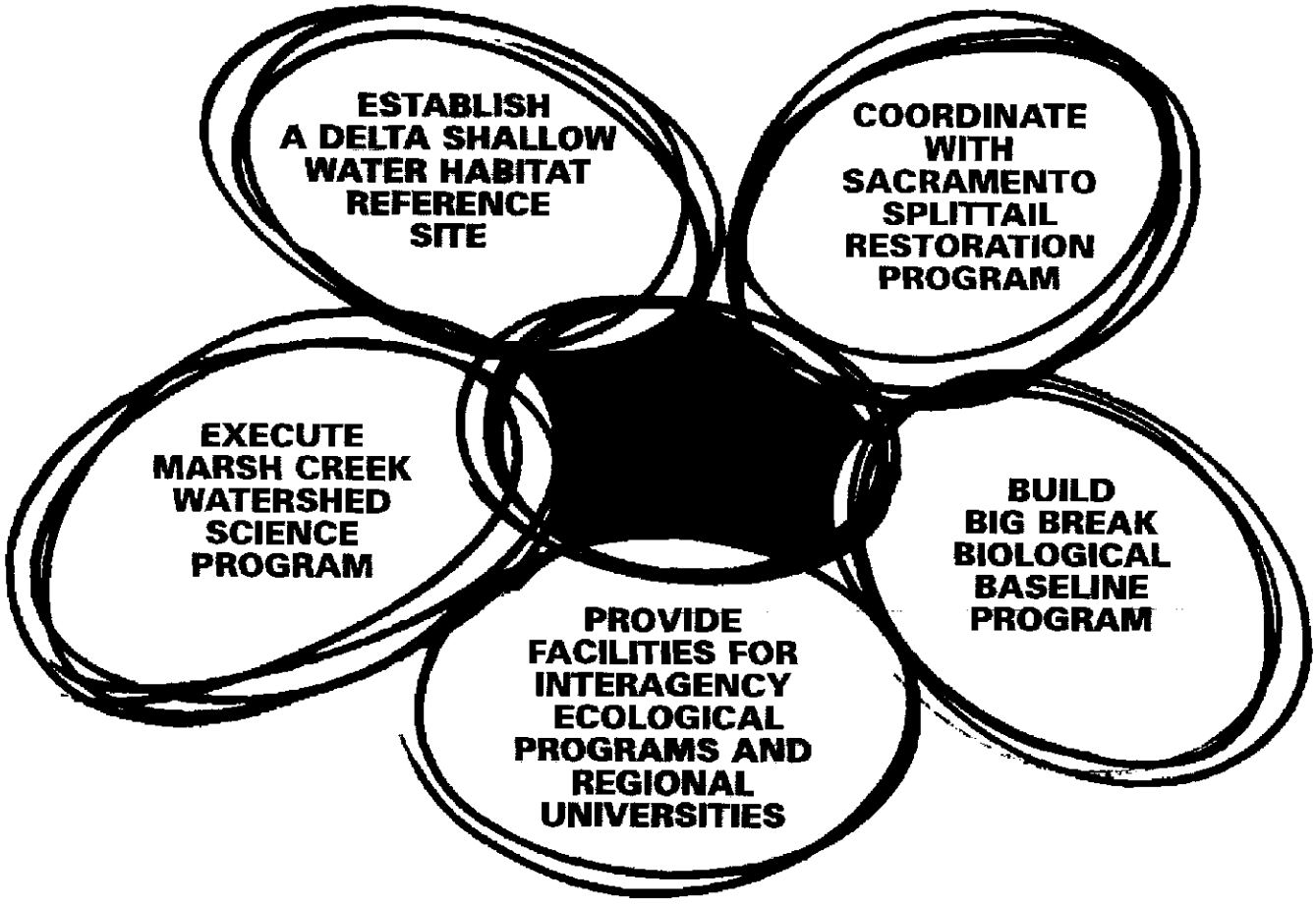

FIG 1: RESEARCH POSSIBILITIES FOR BIG BREAK MASTER PLANNING