Wetlands Outdoor Classroom, Habitat Acquisition for Butte County Meadowfoam

Project Information

1. **Proposal Title:**

   Wetlands Outdoor Classroom, Habitat Acquisition for Butte County Meadowfoam

2. **Proposal applicants:**

   Jim Saake, Northern California Regional Land Trust

3. **Corresponding Contact Person:**

   Jim Saake
   Northern California Regional Land Trust
   167 East Third Aveneue Chico CA 95926
   530- 894-7738
   saakejim@cmc.net

4. **Project Keywords:**

   At-risk species, plants
   Preserves
   Vernal pools

5. **Type of project:**

   Implementation_Full

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

   Yes

   If yes, is there an existing specific restoration plan for this site?

   No

7. **Topic Area**:

   At-Risk Species Assessments

8. **Type of applicant:**

   Private non-profit

9. **Location - GIS coordinates:**

Latitude: 39.430

Longitude: -121.465

Datum:

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

Northeast corner of Bruce Road and the Skyway in southeast Chico, 264 acres.

10. **Location - Ecozone:**

    7.5 Big Chico Creek, 7.6 Butte Creek

11. **Location - County:**

    Butte

12. **Location - City:**

    Does your project fall within a city jurisdiction?

    Yes

    If yes, please list the city: Chico

13. **Location - Tribal Lands:**

    Does your project fall on or adjacent to tribal lands?

    No

14. **Location - Congressional District:**

    2

15. **Location:**

    California State Senate District Number: 1

    California Assembly District Number: 3

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: 20%

Total Requested Funds: $2,000,000

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:

Wildlife Conservation Board $500,000

U.S Fish and Wildlife Service $500,000

Packard Foundation $500,000

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.

Virgin Valley Butte Creek Ecological Preserve CALFED ERP 1999

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)

    John Willoughby State Botanist BLM 916/978-4638 john_willoug@ca.blm.gov

    Carol Witham vernalpools.org 916/753-5872

21. **Comments:**

Environmental Compliance Checklist

Wetlands Outdoor Classroom, Habitat Acquisition for Butte County Meadowfoam

1. **CEQA or NEPA Compliance**
   a) Will this project require compliance with CEQA?

      Yes
   b) Will this project require compliance with NEPA?

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

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

   CEQA Lead Agency: Fish and Game
   NEPA Lead Agency (or co-lead:) Fish and Wildlife
   NEPA Co-Lead Agency (if applicable):

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

   CEQA
   -Categorical Exemption
   XNegative Declaration or Mitigated Negative Declaration
   -EIR
   -none

   NEPA
   -Categorical Exclusion
   XEnvironmental Assessment/FONSI
   -EIS
   -none

   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?

      No

      If the CEQA/NEPA process is not complete, please describe the dates for completing draft and/or final CEQA/NEPA documents.

      December 2002

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 Required

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

Wetlands Outdoor Classroom, Habitat Acquisition for Butte County Meadowfoam

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

   Yes

   If you answered yes to #1, please answer the following questions:

   a) **How many acres will be acquired?**

      Fee: 264
      Easement: 0
      Total: 264

   b) Will existing water rights be acquired?

      Yes

   c) Are any changes to water rights or delivery of water proposed?

      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?**

   No

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).

   Preservation and Research

4. **Comments.**

   Mr. Schmidbauer has offered to sign an option agreement with Northern California Regional Land Trust for purchase of the land. Land has had a resource management overlay since the adoption of the Chico General Plan in 1994. Preserving this property will allow the landowner to expedite development of his property west of Bruce Road, west of the project site.

Conflict of Interest Checklist

Wetlands Outdoor Classroom, Habitat Acquisition for Butte County Meadowfoam

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):

Jim Saake, Northern California Regional Land Trust

Subcontractor(s):

Are specific subcontractors identified in this proposal? No

Helped with proposal development:

Are there persons who helped with proposal development?

Yes

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

Jim Saake Northern California Regional Land Trust

Comments:

Budget Summary

Wetlands Outdoor Classroom, Habitat Acquisition for Butte County Meadowfoam

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**
1	Acquisition	200	10000		1000	2000	16000		1,500,000	1529000.0	5800	1534800.00
2	Management Plan	200	10000		500	1000		2000		13500.0	2700	16200.00
3	Implementation	200	8000		500	1000		500		10000.0	2000	12000.00
4	Monitoring	200	8000		500	1000		2000		11500.0	2300	13800.00
		800	36000.00	0.00	2500.00	5000.00	16000.00	4500.00	1500000.00	1564000.00	12800.00	1576800.00

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**
1	Acquisition									0.0		0.00
2	Management Plan	1040	52000		2000	3000		1000		58000.0	11600	69600.00
3	Implementation	500	20000		1000	3000		1000		25000.0	5000	30000.00
4	Monitoring	1040	41600		2000	3000		2000		48600.0	9720	58320.00
		2580	113600.00	0.00	5000.00	9000.00	0.00	4000.00	0.00	131600.00	26320.00	157920.00

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**
1	Acquisition									0.0		0.00
2	Management Plan	520	26000		2000	2000		1000		31000.0	6200	37200.00
3	Implementation	1040	41600		3000	2000		3000		49600.0	9920	59520.00
4	Monitoring	1040	41600		3000	2000		3000		49600.0	9920	59520.00
		2600	109200.00	0.00	8000.00	6000.00	0.00	7000.00	0.00	130200.00	26040.00	156240.00

Grand Total=1890960.00

Comments.

Budget Justification

Wetlands Outdoor Classroom, Habitat Acquisition for Butte County Meadowfoam

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

200 Hours Project Management for Task 1(Acquisition) - Year 1 only - Real Estate negotiation and title review, appraisal acquisition. 1760 Hours Management Plan Development 1740 Hours Implementation Activities 2280 Hours Monitoring Activities

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

Acquisition and Management Plan Development - $50.00/hour Implementation and Monitoring - $40.00/hour

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

None

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

Most travel will be local however regular trips to Sacramento to meet with agencies will comprise 40% of travel budget.

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

Yr 1 Yr 2 Yr 3 Office 4000 5000 3000 Laboratory 0 3000 5000 Computing 3000 2000 2000 Field supplies 2500 3000 3000

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.

Consultants will be used primarily for Acquisition activities (Task 1), ie. legal, appraisal, appraisal review, and title policy. Title policy will be approximately $7500. Total hours and rate are averaged for other activities, 100 hours @ $85.00/hour.

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.

None

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 presentatons, reponse to project specific questions and necessary costs directly associated with specific project oversight.

Project managment and oversight will be accomplished between the Project Manager working on the development of the management plan, implementation coordinator, and monitoring coordinator. Approximately 15% of salaries, supplies, and travel will be dedicated to project oversight.

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

Property acquisition request to CALFED is $1,500,000. Estimated cost to purchase the property is between 2.5 and 3.0 million dollars, with cost-share partners.

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 cost of 20% of all total direct cost with the exception of acquisition costs, is for project administration, accounting, contracting, office overhead.

Executive Summary

Wetlands Outdoor Classroom, Habitat Acquisition for Butte County Meadowfoam

This research, restoration, and education proposal is for acquisition in fee title by the Butte College Foundation (BCF), upon approval of the BCF Board of Trustees, of property containing one of the largest populations of Butte County Meadowfoam(BCM), from a willing private landowner, George Schmidbauer. The Butte County meadowfoam is one of the most critically endangered plant species in the Central Valley of California. It was federally-listed as endangered on June 8, 1992 (USFWS 1998) and State-listed as endangered in 1982 (California Dept. of Fish and Game 2000). The BCM is a very rare plant with a naturally limited range entirely within Butte County. Development in the Chico area has fragmented it?s limited wetlands habitat and remains the primary threat to this species. Nearly all sites where the plant is found are proposed for development. The objective of the proposal is to acquire and restore land needed to protect and enhance the remaining occupied habitat of this species. The property consists of 264 acres, located in the southeast portion of the City of Chico in Butte County. The site contains an extensive vernal pool and swale system, rolling annual grassland, and riparian habitat. The property has not been significantly altered and has been used as pastureland in the past. The Butte Creek Diversion Channel, which connects overflows of Little Chico Creek to Butte Creek, bisects the property. An existing 15-acre preserve, the Doe Mill Preserve, was created to protect the BCM and is contiguous with the property. BCF will hold the title to the property and will coordinate restoration and management. The Northern California Regional Land Trust (NCRLT) will hold a conservation easement and assist with management and provide annual monitoring of the easement requirements. NCRLT will oversee negotiations with the landowner, provide title review, and arrange for the appraisal. BCF, NCRLT, and the Butte Environmental Council (BEC) will develop and implement a management plan with input from agencies, conservation groups, and other educational programs through the Watershed Education Project at the Chico Unified School District, Butte College and California State University Chico. The hypothesis is that acquisition of this property will benefit the BCM and other threatened or endangered species including the vernal pool tadpole shrimp and the vernal pool fairy shrimp, both of which occur on the site, and the spring-run chinook salmon and Central Valley steelhead, both of which occur in Butte Creek. Protection of this site will also help protect the water quality of Butte Creek by maintaining wetlands, recharge areas, and restoring a riparian cooridor along the diversion channel. It will also provide benefits to the community by establishing the Wetland Outdoor Classroom where students and teachers involved in the locally-based Watershed Education Project will have the opportunity to research, restore and monitor this rare ecosystem.

Proposal

Northern California Regional Land Trust

Wetlands Outdoor Classroom, Habitat Acquisition for Butte County Meadowfoam

Jim Saake, Northern California Regional Land Trust

Project Description

1. Problem

The Butte County meadowfoam (BCM) is one of the most critically endangered plant species in the Central Valley of California. The species was federally-listed as endangered on June 8, 1992 (USFWS 1998) and State-listed as endangered in 1982 (California Fish and Game 2000). BCM is a very rare plant with a naturally limited range entirely within Butte County. BCM exhibits a high degree of genetic diversity between populations with little variation within populations (Dole and Sun 1992). As a result, the loss of any of the populations will greatly reduce the genetic diversity remaining in the species.

The plant is found in 9 populations in the Chico area in northern California. Residential and commercial development has fragmented the already limited habitat of BCM and continues as the primary threat to this species. Nearly all sites where the plant is found are proposed for development. Acquisition and restoration of habitat is needed to protect and enhance the remaining occupied habitat of this species. The Schmidbauer property located in the southeast portion of the City of Chico in Butte County, Califomia, contains one of the largest BCM populations. The property consists of two contiguous parcels of land that total 264 acres. The site contains an extensive vernal pool and swale system, rolling annual grassland, and riparian habitat. The property has not been significantly altered by leveling or plowing and has been used as pastureland in the past. The Butte Creek Diversion Channel, which connects Little Chico Creek to Butte Creek, bisects the property. The site presents a variety of outdoor education opportunities for local students and adult education programs. The locally-based Watershed Education Project has indicated a great interest in facilitating the development of the educational field study opportunities for the site. An existing 15-acre preserve owned by the City of Chico was created to protect BCM and is contiguous with the Schmidbauer site. A draft management plant was developed for this site for the City of Chico and will be utilized as appropriate.

Our hypothesis is that BCM is in danger of extinction from habitat loss, fragmentation, inappropriate management, and degradation of habitat. The goal of the proposal is to protect a population of the species on the Schmidbauer property in perpetuity, to enhance the site s ability to support BCM, to ensure the continued existence of this population through proper adaptive management strategies, and to restore habitat health with riparian restoration. The objectives of the proposal are to improve the quality of the habitat on the site and to maximize the amount of suitable meadowfoam habitat. Additionally, protection of this property will also benefit four other federally-listed species found on or near the site. Two vernal pool crustaceans, the endangered vernal pool tadpole shrimp and the threatened vernal pool fairy shrimp, are found on the property. Two federally-listed fish are found in Butte Creek and may have access to Little Chico Creek through the diversion: the threatened spring-run chinook salmon and the Central Valley steelhead. Butte Creek and it s tributaries were designated by National Marine Fisheries Service as critical habitat for both fish species.

2. Justification

Conceptual Model: The conceptual model for the project consists of 4 tasks: (1) acquisition of the site, (2) development of a management plan, (3) implementation of the management plan, and

(4) monitoring the management actions to develop adaptive management strategies.

Hypothesis: Our hypothesis is that the meadowfoam is endangered from habitat loss, fragmentation, inappropriate management, and degradation of habitat. We propose to test the hypothesis by acquiring property that supports a relatively large population, removing the stressors on this population, and adaptively managing it to allow this population to contribute to the long-term recovery of the species. The acquisition of this property is a pilot project as no systematic study of monitoring and management of meadowfoam has been done. This information is necessary to develop an effective method of management for this species. Information is available on response of vernal pools and upland grasses to various management techniques, particularly grazing (Standard Format Management Plan for Resources and Habitat Conservation Areas in the City of Chico 1996; Barry 1996; Cosumnes River Range Management Plan 1999; Lis and Eggeman. 2000). However, specific information is needed on the response of the meadowfoam to level, method, and timing of the three thatch control methods grazing, burning and mowing. The information resulting from this study on response of the meadowfoam to various thatch control methods will not only ensure the survival of the Schmidbauer population but can be applied to the remaining populations. Details of the pilot project will be developed after initial plant surveys have been completed in Phase 2. It is expected that a combination of methods will be most successful in enhancing this and other meadowfoam populations. This study is expected to help the managers of this and other meadowfoam preserves select which combination will be most appropriate for meadowfoam based on the size and condition of the site (degree and type of infestation of non-native plants) and climatic conditions.

Scientific Uncertainties and Impediments to Restoration: The uncertainties and impediments addressed by this proposed project include:

- non-native invasive species
- sediment transport and lack of riparian vegetation
- beyond the riparian corridor

Non-native species control is being conducted on the Doe Mill preserve, a 15-acre preserve contiguous with the proposed acquisition site. The target non-native species on Doe Mill and on the proposed site are aggressive, upland grasses that compete with the meadowfoam along the vernal pool edges and swales. After acquisition of the property has occurred, it will be surveyed for the presence of these species and efforts will be co-ordinated with the management of the Doe Mill preserve to implement an adaptive management program. It is uncertain how competition by aggressive non-native plant species affects the meadowfoam and whether the meadowfoam will expand its occupied area if the upland non-native grasses are controlled. It is also uncertain which grass control measure will be most effective and at which time of year. In our pilot study, we propose to monitor the effects of a variety of treatments, including grazing, mowing, and, if possible, burning, to control the non-native species. We will monitor effects on non-native plants by mapping changes in the area occupied and looking for shift in dominance from one

species to another. We will examine the resulting changes in meadowfoam by monitoring the area occupied by meadowfoam, vigor of the plants, and seed production. All plant monitoring will follow protocols set forth by Elzinga *et al*, 1998.

Sediment transport and lack of riparian vegetation The initial phase of this project is to protect the Schmidbauer property which will preserve the watershed and riparian zone of the Butte Creek Diversion Channel. Within the physical constraints of the property, we will explore the possibility of restoring and revegetating the riparian zone along the Diversion Channel. The channel is largely unvegetated and may be a result of soil erosion.

Beyond the riparian corridor Protection of the proposed site will preserve 264 acres of open space that can potentially be enhanced to further protect the listed species present as well as the water quality of the Butte Creek Diversion Channel. The site comprises the watershed for the Diversion Channel and, therefore, for a portion of Butte Creek. The site has been used in the past for agricultural purposes and may be grazed as part of the upland management strategy.

3. Approach

Phase 1 tasks include: (a) negotiating with Mr. George Schmidbauer for purchase of fee title of the propose acquisition site and (b) initial basic land management protection actions.

Task 1A. This research, restoration, and education proposal is for acquisition in fee title by the Butte College Foundation (BCF), upon approval of the BCF Board of Trustees, of property containing one of the largest populations of BCM, from a willing private landowner, George Schmidbauer. Northern California Regional Land Trust (NCRLT) will negotiate with Mr. Schmidbauer to purchase the site in fee title. This will include title research and contract appraisal. The price offered will be in compliance with federal land acquisition standards and procedures. Land will only be purchased if Mr Schmidbauer agrees with the appraised price and the offer made will be based on an approved appraisal and existing market value.

Task 1B. The BCF, NCRLT Butte Environmental Council (BEC) and others will identify and carry out initial land management tasks such as posting signs to limit access to the property, removing trash if necessary. Other management tasks will occur later in the project and will be based on site surveys and development of the management plan in Phase 2.

Phase 2. This task will include development of a management plan by BEC, the BCF, the NCRLT and with assistance from the U.S. Fish and Wildlife Service, the California Department of Fish and Game, and the National Marine Fisheries Service. Specific objectives will be developed for each of the listed species that inhabit the site.

Phase 3 tasks will include the implementation of the management plan including the environmental educational component.

Task 3A. Environmental education opportunities and programs will be developed in conjunction with the locally-based K-12 Watershed Education Project, the Stream Minder s organization,

Butte Environmental Council and other non-governmental organizations. Existing survey data and baseline data will be collected for BCM, the listed crustaceans, and non-native invasive plants. Historic aerial photographs will be collected to provide information on any previous man-made changes in topography. Baseline surveys of water quality, if desired, will be conducted. Permanent photo points in both wetland and upland sites will be established and mapped using GPS technology to assist in recording responses to management strategies.

Task 3B. we will implement the short-term and begin the long-term elements of the management plan. Actions will include vegetation management, fencing if required, surveys existing plant communities, public access, and water quality monitoring.

Phase 4. This task will include monitoring the site to assess the status of the listed species and the effects of the grazing, burning, or mowing on the invasive species and on water quality. The results will be used to revise the management strategies if needed. We will explore the possibility of enhancing and restoring the riparian zone.

Information provided by the monitoring of the proposed site is particularly valuable and applicable to other managers of meadowfoam preserves and of urban preserves, in general. The pilot study beginning in Phase 2 will maximized information richness by compiling current and historic baseline data for comparison to pilot study results.

4. Feasibility

The primary goal of this proposal is to acquire, in fee title, two parcels of land totaling 264 acres from a willing seller. This goal is not dependent on any other projects, environmental permitting or compliance. The owner has agreed to develop an option to purchase and the foundations of partnerships to manage and monitor the site have been developed. With adequate funding sources this project is highly feasible.

5. Performance Measures

A monitoring plan will be developed as part of the management plan. This plan will include criteria for measuring the status of the listed species present on the site and the effects of management activities on the invasive plant species and on riparian vegetation. If it is decided to monitor water quality in the Butte Creek Diversion Channel, a water quality monitoring plan will be developed as part of the management plan. Existing survey data and baseline data will be collected prior to implementation of any management activities. This data will include existing surveys for BCM, the listed crustaceans, and historic aerial photographs to determine if changes in topography have occurred. Baseline surveys of invasive plants, and if desired, for water quality will be conducted. . All baseline data and permanent photo points will be mapped using GPS technology to record changes in habitat quality over time. Photo points will be established in both wetland and upland sites to record visual changes.

6. Data Handling and Storage

The Butte College Foundation, Northern California Regional Land Trust and the Watershed Education Project will act as the official repositories for all data reports generated by this project, and will be accessible by the public.

7. Expected Outcome

The outcome of this proposal will be the acquisition, in fee title from a willing seller, of 264 acres of natural, vernal pool habitat that supports BCM and associated riparian habitat. The future outcome of the entire project will be protection and enhancement of this acreage consistent with CALFED ERPP. Expected products in Phase 1 include documents required for property transfer, in Phase 2 a management plan and environmental education programs, and in Phase 4 any necessary revisions to the management plan. Preservation of this site will increase public awareness and knowledge of natural resources and will promote active participation and coordination with local environmental efforts.

8. Work Schedule

Phase 1: The BCF plans to acquire the property within one year of funding allocation. Estimated start date: receipt of funding (estimated at December 2002). Estimated completion date: December 2003.

Phase 2: BEC will develop a management plan for the Schmidbauer property with assistance from the NCRLT, BCF, and state and federal agencies. Upon completion of the management plan, proposals will be developed and submitted to either the ERP, Watershed Program or CALFED s Directed Programs for funding of the ecological management actions, studies, and monitoring plans. Estimated start date: August 2003, Estimated completion date: December 2004.

Phase 3: Implement the management plan and education program, Estimated start date: March 2004, Estimated completion date: December 2005

Phase 4: Monitor the management actions to develop adaptive management strategies. Estimated start date: December 2004, Estimated completion date: December 2005.

B. Applicability to CALFED ERP and Science Program Goals and Implementation Plan and CVPIA Priorities

1. ERP, Science Program and CVPIA Priorities

The ERP Strategic goals addressed by this proposal include:

Goal 1: At-Risk Species - Achieve recovery of at-risk native species dependent on the Delta and Suisun Bay as the first step toward establishing large, self-sustaining populations of these species. BCM is the focus of this proposal, however; the spring-run chinook salmon and the Central Valley steelhead are both at-risk species that are present in Butte Creek and are dependent on the water quality of Butte Creek and its tributaries.

> Objective 3 of Goal 1: Enhance or conserve native biotic communities in the Bay-Delta estuary and its watershed, including the abundance and distribution of the following biotic assemblages and communities: ...seasonal wetland plant communities, vernal pool

communities, aquatic plant communities, and terrestrial biotic assemblages associated with aquatic and wetland habitats. The proposed site contains a large number of vernal pools and seasonal wetlands surrounded by upland grasslands.

Goal 2: Ecosystem Processes and Biotic Communities - Rehabilitate natural processes in the Bay-Delta system to support, with minimal ongoing human intervention, natural aquatic and associated terrestrial biotic communities and habitats, in ways that for native members of those communities. Protection of 264 acres of Butte Creek watershed and the riparian zone along Butte Creek Diversion Channel is part of the goal of this acquisition.

Goal 4: Habitats - Protect and/or restore functional habitat types in the Bay-Delta estuary and its watershed for ecological and public values such as supporting species and biotic communities, ecological processes, recreation, scientific research and aesthetics. The proposed site will provide valuable opportunities to local schools to learn first-hand about the rare and endangered vernal pool ecosystem and the species it supports. Management of the upland plant species and the riparian zone will also benefit the water quality of Butte Creek by protecting this portion of the Butte Creek watershed.

Goal 5: Non-native invasive species - Prevent the establishment of additional non-native species and reduce the negative biological and economic impacts of established non-native species in the Bay-Delta estuary and its watershed. Non-native plant species are known to exist on the proposed site. The protection and enhancement of BCM and the vernal pool habitat on this site will require the management of upland weedy species through a variety of methods, including grazing, mowing, and controlled burns. The location and density of the non-native plants will be mapped and their response to management methods will be recorded.

Goal 6: Sediment and Water Quality - Improve and or maintain water and sediment quality conditions that fully support healthy and diverse aquatic ecosystems in the Bay-Delta watershed and eliminate, to the extent possible, toxic impacts on organisms in the system, including humans. Acquisition of the proposed site will permanently protect this portion of the Butte Creek watershed from the increased levels of pesticides, herbicides, fertilizers and petroleum products in the runoff associated with residential development and associated infrastructure. Increased sediment load associated with building and road construction will be prevented. Protection of the site will also help retain the normal hydroperiod and quantity of runoff contributed by this watershed during storm events. Protection of recharge areas and wetlands is specified in the Butte Creek Watershed Management Strategy produced by the Butte Creek Watershed Advisory Committee with support from the Butte Creek Watershed Conservation and other conservation groups and industry partners.

Goal 7: Environmental Education - The proposed site will provide local schools and environmental education groups a large, easily accessible protected area that supports several endangered species, a rare habitat type, and a natural, relatively undisturbed landscape within the City of Chico. Educational programs, including biology, hydrology, geology, and geography can be developed to study endangered species, relationships between wetlands and their upland watershed, management of watersheds, and restoration of riparian systems. Students at

California State University at Chico, Butte Community College, and local high schools would all benefit from fieldwork at a vernal pool grassland preserve containing endangered species within the largest urban area north of Sacramento. Junior high and elementary schools will also benefit from more basic wildland tours with knowledgeable experts. A large wetland preserve could also house an interpretative center with tours for local community members and schools to provide opportunities for photography, wildflower viewing, bird watching, and hiking.

The CALFED ERP Multi-species Conservation Strategy Milestone met by this proposal for the Sacramento River Basin include:

> Habitats: Implement 25% of the ERP target for enhancing, protecting, and restoring seasonal wetlands in the following EMZs: American River, Butte Basin, Colusa Basin, and Feather River/Sutter Basin.

2. Relationship to Other Ecosystem Restoration Projects

This restoration proposal complements several other related CALFED-funded projects within the greater Butte Creek watershed. This proposal would protect and manage watershed areas for the spring-run chinook and Central Valley steelhead which are the target species for the following projects on Butte Creek:

- Butte Creek/Sanborn Slough Bifurcation Upgrade Project (2001-E204),
- Lassen National Forest Watershed Stewardship within the Anadromous Watersheds of Butte, Deer, and Mill Creeks (2001-H200),
- Butte Creek, Big Chico Creek and Sutter Bypass Chinook Salmon and Steelhead Evaluation (2001-K218),
- White Mallard Dam and Associated Diversions (2001-L203), and
- Lower Butte Creek Project: Phase III Facilitation/Coordination and Construction of Three Fish Passage Modification to Sutter Bypass West Side Water Control Structures (2001-L205).

This proposal also directly complements the Watershed Education Program (2001-I204) developed by the Chico Unified School District which seeks to provide continued training in field protocols and expand its current CALFED-funded program to include restoration activities and enhance linkages to other watershed education efforts in the area. The proposed site will provide local schools and environmental education groups with a large, easily accessible protected area and the rare opportunity to participate in long-term monitoring of several endangered species and a rare habitat type within the City of Chico. Additionally, Little Chico Creek Watershed Group received a CALFED grant to do water quality monitoring on Little Chico Creek upstream from Butte Creek Diversion Channel.

3. Requests for Next-Phase Funding

This is the first phase of this project.

4. Previous Recipients of CALFED Program or CVPIA funding

No funding for this project has been previously requested from either CALFED or CVPIA.

5. System-Wide Ecosystem Benefits

The proposed site is contiguous with an existing 15-acre preserve that is managed for the same endangered species, primarily BCM and, secondarily, the vernal pool shrimp. Acquisition of the proposed site will augment and complement the existing preserve. The existing preserve is managed by the City of Chico, which will be consulted on the management of the project.

6. Additional Information for Proposals Containing Land Acquisition

- The private landowner wishes to sell the property in fee title to a land trust or other conservation entity.

- The property is currently zoned as residential and commercial with a resource management overlay (i.e. there are constraints on the property for protection of natural resources). Retention of the site as open space is consistent with the general plan.

- The land is not mapped as Prime, Statewide Importance, or Unique Farmland.

- As noted above in the project description, the site directly supports three federally-listed species and a rare habitat type (vernal pools). The site also comprises a portion of the watershed for Butte Creek, which in turn supports two federally-listed fish. Protection of this site helps to meet the following CALFED ERPP and Science Program Goals:1,2,4,5,6, and Environmental Education.

- The landowner is currently interested in selling the property rather than developing it for residential and commercial uses; however, if funding is not provided within one year the owner may develop alternative plans.

C. Qualifications

Northern California Regional Land Trust (NCRLT) is a private non-profit (501c(3)) based in Chico which has been in existence since 1989 (incorporated as Parks & Preserves Foundation). They operate as a community resource for voluntary land conservation, and provide information and education to community members and professionals about benefits of conservation easement donations and other voluntary conservation efforts.

They hold six conservation easements in the area, totaling several hundred acres. (See web site at www.landconservation.org) They are the recipients three years running of LEGACI grants from the Great Valley Center. They also partnered with the CSU Chico Foundation in a CALFED funded riparian restoration project on Butte Creek, Virgin Valley Unit.

NCRLT members who will be involved in this project include:

Jim Saake is principal of Saake s Real Property Services, a real estate appraising and consulting firm. Mr. Saake is a State Certified appraiser who specializes in rural property including

Conservation Easements appraisal. He was the founding president of the Lassen Land and Trails Trust in1987, a land trust operating out of Lassen County. He would oversee the land acquisition portion of the project, including title review, and contracting for appraisal and appraisal review. Mr. Saake is currently President of the Board of Directors, NCRLT

Allen Harthorn, MS, has completed degrees in Geography, BA, Agriculture, BS and MS, and has received a Agricultural specialist credential, as well as credential certifications in Life Sciences, Social Sciences, and Multiple Subjects. He has many years of experience managing agricultural training projects for CSU Chico. He is an avid fisherman and his personal involvement with and love for the Butte Creek Watershed led him to start the Butte Creek Watershed Conservancy. He was personally responsible for obtaining the initial FWS, CALFED and NFWF grants to develop a Management Strategy for the Butte Creek Watershed and the For the Sake of Salmon grant to hire a watershed coordinator. He has written proposals and received funding for two research projects, one restoration project, one four-partner acquisition and restoration of a 93 acres parcel on Butte Creek, and the Watershed Education Project. He is currently the Education Coordinator for the Sacramento River Watershed Program and Regional Coordinator for Northeast CREEC serving the nine northeastern counties of California. He serves as Vice-President and board member for the Northern California Regional Land Trust.

Lee Altier, PHD, is an Associate Professor at CSU Chico, with a Doctoral Degree in Horticulture. Lee is a member of NCRLT and assist with research design. His educational and professional background is summarized below:

Cornell University	Ph.D.	Horticulture	1992
Cornell University	M.S.	Horticulture	1990
Washington State University	B.S.	Horticulture	1979
University of Washington	B.A	Anthropology	1977

Professional Experience

Associate Professor, College of Agriculture, CSU, Chico, CA	1995-present
Research Horticulturist, USDA/ARS Southeast Watershed Research Lab,	1992-1995
Graduate Research and Teaching Assistant, Cornell University	1986-1992
Farm Inspector, Organic Farm Certification Pgm., Natural Org. Farmers Assoc.	1987-1990
Project Supervisor, Specialty Crops , Dept. of Vegetable Crops, Cornell Univ.	1987
Horticulture Extension Agent, U.S. Peace Corps, Nepal	1982-1985
Farm Director, Navajo Mission Academy, Farmington, NM	1980
Orchard Manager, Bennett Orchards, Manson, WA	1979

BEC is a non-profit, 501(c)(3) organization with a twenty-five year history. Since our inception, we have been the leading voice for environmental conservation in a tri-county region of the northern Sacramento Valley. **Barbara Vlamis** is the Executive Director for Butte Environmental Council and has served in that capacity for 10 years. She has a Master s Degree in Interdisciplinary Studies, with emphases in cultural anthropology, geography, and language extinction. Barbara has an extensive background in wetland education including the production of a regional conference, Vernal Pools of the North State: Biology, Conservation, and

Management. She has also worked closely with local, state, and federal agencies during her tenure on wetland and endangered species permits, enforcement, and the proposed Chico Habitat and Resource Conservation Plan.

D. Cost

1. Budget

The budget includes $1,500,000 for acquisition of the land and $390, 960 for development of a management plan, implementation of the plan, including riparian restoration, and monitoring of the land to establish baseline inventories and regular ongoing monitoring of plant communities, water quality, habitat evolution.

2. Cost-sharing

It is anticipated that additional funds for the acquisition and management of the project will be provided by the Wildlife Conservation Board, U.S. Fish and Wildlife Service, and the David and Lucille Packard Foundation.

E. Local Involvement

Community partners include:

" Butte Community College faculty and students
" CSU Chico faculty and students
" Chico Unified School District
" BEC
" Friends of Butte Creek
" NCRLT
" Watershed Education Project

F. Compliance with Standard Terms and Conditions

Northern California Regional Land Trust agrees to comply with all standard terms and conditions of CALFED and the funding administrator.

G. Literature Cited

1. Elzinga *et al*, 1998.
2. USFWS 1998
3. California Fish and Game 2000
4. Dole and Sun 1992
5. Standard Format Management Plan for Resources and Habitat Conservation Areas in the City of Chico 1996; Barry 1996;
6. Cosumnes River Range Management Plan 1999; Lis and Eggeman. 2000