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COVER SHEET (PAGE 1 of 2)

May 1998 CALFED ECOSYSTEM RESTORATION PROPOSAL SOLICITATION

Floodplain Management and Habitat Restoration for Dry Creek and Best Slough,
Tributaries of the Bear River, Beale Air Force Base, Yuba County

Proposal Title: _____

Applicant Name: Bruce Reihhardt, Natural Resources Manager

Mailing Address: Beale AFB, 9CES/CEV, 6451 B Street, Beale AFB, CA 95903-1708

Telephone: (530) 634-2643

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Amount of funding requested: \$ 395,600 for 3 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.

- | | |
|---|---|
| <input type="checkbox"/> Fish Passage Assessment | <input type="checkbox"/> Fish Passage Improvements |
| <input checked="" type="checkbox"/> Floodplain and Habitat Restoration | <input type="checkbox"/> Gravel Restoration |
| <input type="checkbox"/> Fish Harvest | <input type="checkbox"/> Species Life History Studies |
| <input type="checkbox"/> Watershed Planning/Implementation | <input type="checkbox"/> Education |
| <input type="checkbox"/> Fish Screen Evaluations - Alternatives and Biological Priorities | |

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

- | | |
|---|--|
| <input type="checkbox"/> Sacramento River Mainstem | <input checked="" type="checkbox"/> Sacramento Tributary: <u>Dry Ck, Bear & Feather Rivers</u> |
| <input type="checkbox"/> Delta | <input type="checkbox"/> East Side Delta Tributary: _____ |
| <input type="checkbox"/> Suisun Marsh and Bay | <input type="checkbox"/> San Joaquin Tributary: _____ |
| <input type="checkbox"/> San Joaquin River Mainstem | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> Landscape (entire Bay-Delta watershed) | <input type="checkbox"/> North Bay: _____ |

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

- | | |
|--|---|
| <input type="checkbox"/> San Joaquin and East-side Delta tributaries fall-run chinook salmon | <input type="checkbox"/> Spring-run chinook salmon |
| <input type="checkbox"/> Winter-run chinook salmon | <input checked="" type="checkbox"/> Fall-run chinook salmon |
| <input type="checkbox"/> Late-fall run chinook salmon | <input type="checkbox"/> Longfin smelt |
| <input type="checkbox"/> Delta smelt | <input checked="" type="checkbox"/> Steelhead trout |
| <input type="checkbox"/> Splittail | <input type="checkbox"/> Striped bass |
| <input type="checkbox"/> Green sturgeon | |
| <input type="checkbox"/> Migratory birds | |

**FLOODPLAIN MANAGEMENT AND HABITAT RESTORATION FOR
DRY CREEK AND BEST SLOUGH
TRIBUTARIES OF THE BEAR RIVER
BEALE AIR FORCE BASE
YUBA COUNTY**

Submitted by:
U.S. Air Force
Beale Air Force Base

II. Executive Summary

b. Project Description and Primary Biological/Ecological Objectives

Enhancement and recovery of Sacramento Valley anadromous fish populations of salmon and steelhead require consideration of the potential contribution of small valley-foothill streams. As it passes through Beale Air Force Base (AFB), Dry Creek, a perennial tributary to the Bear River, provides suitable streamflow and spawning gravels for fall-run chinook salmon and passage for steelhead trout to upstream spawning grounds on the California Department of Fish and Game's (DFG's) Spenceville Wildlife and Recreation Area. The proposed project would be the initial phase of a long-term program to restore existing conservation lands owned by Beale AFB in the Dry Creek floodplain. The project will enhance ecosystem functions of the Dry Creek floodplain riparian corridor, enhance shaded riverine aquatic (SRA) habitat, and restore valley-foothill riparian habitat, and provide direct benefits to salmon and steelhead spawning, rearing, and passage. Specifically, the development of a floodplain habitat restoration plan and habitat restoration projects are proposed as a first phase of a floodplain management and habitat restoration program in the Dry Creek floodplain that would include enhancing or restoring ecological processes over portions of the historical floodplain of this valley-foothill stream, providing additional riparian habitats, and improving aquatic habitats for anadromous and resident fish. The plan would be consistent with recommendations contained in the draft CALFED Bay-Delta Program (CALFED) Ecosystem Restoration Program Plan (ERPP) for the Bear, Feather, and Yuba Rivers Ecological Zone and the Anadromous Fish Restoration Program (AFRP) plan.

c. Approach/Tasks/Schedule

The project would be implemented over 12 to 24 months. Beale AFB natural resources management staff will work with agency staff and a team of technical consultants to develop a habitat restoration plan and collect additional survey data for the portions of the Dry Creek watershed within the AFB, and organize stakeholder participation to encourage similar efforts on other lands along Dry Creek adjacent to the base. Riparian restoration projects will also be implemented during the initial 12 to 24 months and monitored over a 60-month period.

d. Justification for Project and Funding by CALFED

Beale AFB has demonstrated a commitment to ecosystem management of its conservation lands in the Dry Creek and Best Slough floodplain as indicated by its proactive fish and wildlife habitat management programs, guided by U.S. Department of Defense (DOD) guidelines. Beale has designated a 736-acre area along the floodplain as a riparian preservation area; this area includes

all 210 acres of stream and riparian woodlands associated with the creeks and a 40-acre area where valley oak riparian woodland restoration has just been implemented. A goal of Beale AFB's ecosystem management is to manage for biological diversity, including restoring riparian habitats in the Dry Creek corridor, the AFB's most biologically diverse area. A restored creek corridor will benefit native wetland, riparian, and upland habitats; anadromous and resident fisheries; and wildlife, as well as aesthetics and recreation. With CALFED funding, Beale AFB can undertake necessary planning and restoration activities that otherwise could not be accomplished under available DOD funding for base conservation lands. With existing funds and new CALFED grants, a far more aggressive and complete restoration program can be accomplished in the Dry Creek floodplain on the AFB.

e. Budget Costs and Third-Party Impacts

The total cost of this project will be \$395,600. Implementation of the proposed demonstration riparian restoration project will result in minimal and short-term ground disturbance impacts during construction. No third-party impacts are contemplated because the project is limited to Beale AFB. Formation of a local Dry Creek stakeholder group will involve voluntary participation of stakeholders within the Dry Creek floodplain.

f. Applicant Qualifications

Beale AFB has a highly experienced natural resources management staff who currently manages the land to be included in this project and will monitor and report project results annually. The staff has been actively involved in planning and implementing many habitat enhancement and creation projects at the base for the last 15 years. Beale staff has maintained good relations with all neighboring landowners and local, federal, and state agencies.

g. Monitoring and Data Evaluation

Beale AFB staff will establish baseline preproject conditions, publish the results of planning and biological studies, and annually monitor and compare the results of demonstration riparian restoration projects. Results will be published annually.

h. Local Support/Coordination with other Programs/Compatibility with CALFED Objectives

Local landowners and agencies have been invited to participate in the oversight of this project. Development of watershed stakeholder groups is a priority emphasis of CALFED and Central Valley Project Improvement Act (CVPIA) efforts to involve stakeholders in developing and implementing strategic plans for their own lands. Enhancement of SRA and valley-foothill riparian habitats in foothill streams is consistent with recommendations contained in the revised draft AFRP and the draft CALFED ERPP for the Bear, Feather, and Yuba Rivers Ecological Zone; therefore, this project is a prime example for demonstrating the effectiveness of the CALFED and CVPIA philosophy for the recovery of ecosystem health.

III. Title Page

**FLOODPLAIN MANAGEMENT AND HABITAT RESTORATION FOR
DRY CREEK AND BEST SLOUGH
TRIBUTARIES OF THE BEAR RIVER
BEALE AIR FORCE BASE
YUBA COUNTY**

Applicant:

U.S. Air Force
Beale Air Force Base
Environmental Office
9CES/CEV
6451 B Street
Beale AFB, CA 95903
Contact: Bruce Reinhardt
(916) 634-2643

Type of Organization: Federal Agency
Tax Identification Number: Not Applicable
Participants/Collaborators: California Department of Fish and Game Feather River Wildlife
Area and Spenceville Wildlife Area, Region II
RFP Project Group Type: Floodplain Management and Habitat Restoration

July 2, 1998

IV. Project Description

a. Project Description and Approach

The proposed project is the first phase of a multiphase, multiyear program to restore the riparian and stream channel corridors of Dry Creek and Best Slough, tributaries of the Bear River, within the boundaries of Beale AFB, Yuba County, California. The proposed first phase of the program would provide a fish habitat inventory and assessment, a restoration plan for conservation lands in the floodplain of these two stream corridors, and initial stakeholder group development. Habitat restoration projects that would guide future restoration activities not only on Beale AFB but elsewhere in the Central Valley floodplain are included in Phase II. The focus of these efforts will be to develop a model restoration program with goals and objectives compatible with those of CALFED and CVPIA-AFRP, the results of which can be applied to other smaller valley-foothill tributary streams with significant riparian, wildlife, and anadromous and native resident fish spawning and rearing habitat potential. The habitat restoration plan would focus on the riparian corridor, adjacent floodplain riparian forest, and stream-channel habitats.

b. Proposed Scope of Work

The proposed project includes Phases I and II of a habitat restoration program proposed by Beale AFB for the Dry Creek and Best Slough floodplain within Beale AFB. Phase I (Tasks I.1-I.4) is planning-design and stakeholder group development, and Phase II (Tasks II.1 and II.2) is implementation. Phase III is maintenance and monitoring and long-term evaluation, for which funding is not requested at this time.

Phase I - Planning-Design and Stakeholder Group Development (Year 1)

Task I.1. Habitat Inventory. An inventory of riparian and stream channel habitats along the Dry Creek and Best Slough corridors and adjacent floodplains within the boundaries of Beale AFB will be developed. The inventory will be entered into a Geographic Information Systems (GIS) database, and will be summarized and published in a small resource atlas for the project. **Schedule:** second quarter. **Budget:** \$23,000. **Deliverable:** resource atlas.

Task I.2. Fishery Surveys. The following fishery surveys are proposed on Dry Creek at Beale AFB to address important questions related to planning habitat restoration and determining the potential for enhancing salmon and steelhead habitat on the base and in the Dry Creek watershed.

Subtask I.2a. Fall Salmon Spawning and Habitat Reconnaissance Survey. A late-fall reconnaissance survey of Dry Creek and Best Slough on the base is proposed. The survey, conducted by fisheries biologists, would observe evidence of salmon spawning, including observations of salmon, spawning salmon, spawning redds, and salmon carcasses, and record locations using a global positioning system (GPS). The crew would also compile information and map habitat types and conditions (i.e., riffles, pools, runs, spawning beds, sources of gravel recruitment, barriers to migration [e.g., beaver dams], SRA habitat presence or absence, bank conditions and stability, and riparian habitat and condition). Data would be collected on water temperature, turbidity, presence of aquatic plants, and dissolved oxygen and pisometer readings in a sample of redds observed. **Schedule:** fall of year 1. **Deliverables:** A report documenting

the survey results and data collected. Geographic data would be compiled using GIS and presented in the report. **Budget:** \$13,600.

Subtask I.2b. Winter Steelhead Spawning and Habitat Reconnaissance Survey. A winter reconnaissance survey of Dry Creek and Best Slough on the base is proposed. The survey, conducted by fisheries biologists, would observe evidence of steelhead migration or spawning and record numbers and locations using GPS. The crew would collect supplemental information to augment the information collected during the fall survey of habitat types and conditions. **Schedule:** winter of year 1. **Deliverables:** A report documenting the survey results and data collected. Geographic data would be compiled using GIS and presented in the report. **Budget:** \$9,420.

Subtask I.2c. Flow and Water Temperature Survey. Streamflow and water temperature would be recorded during the 1-year study period. Flow would be recorded by installing a gage on the creek upstream of where the creek splits into the Dry Creek and Best Slough channels. An estimate of the flow split into Dry Creek and Best Slough will be made periodically when the opportunity arises. Water temperature will be recorded continuously at three gages: one above the bifurcation of the creek and one each at the lower ends of Dry Creek and Best Slough at the southern edge of the base. **Schedule:** all 4 quarters. **Deliverables:** Data will be compiled and presented in a report. **Budget:** \$7,300.

Subtask I.2d. Fish Passage Survey. Fish passage would be observed at specific barriers (Beale dam and ladder; beaver dams) on Dry Creek and Best Slough. Surveys would be conducted from October 1 to May 31. Target information would be observation of concentrations of adult salmon and steelhead below barriers and observation of passage and the degree of hindrance by the barrier. **Schedule:** sporadic from fall through spring. **Deliverables:** Data will be compiled and presented in a report. **Budget:** \$4,180.

Subtask I.2e. Spring Juvenile-Fish Survey. A survey would be conducted in spring to detect the presence and relative abundance of juvenile salmon and juvenile and adult steelhead in Dry Creek and Best Slough on the AFB. Techniques to be employed may include snorkel surveys, seining, and back-pack electroshocking (pending approval in collecting permit). Sampling would be stratified by habitat type and geographic location. The species, size, and numbers observed would be recorded by location. **Schedule:** spring of year 1. **Deliverables:** Data will be compiled and presented in a report. **Budget:** \$9,440.

Subtask I-.2f. Summary Report of the Existing Fishery and the Potential for Population Enhancement. Based on the results of the various fish surveys, a report that describes the current condition of the fishery and aquatic, SRA, riparian, and floodplain habitat would be prepared. The report would describe physical features that may limit anadromous fishery enhancement and identify opportunities for enhancement to anadromous and resident fish populations and riparian and stream-channel habitats on which they depend. The report would document study findings valuable to the development of the habitat restoration plan. **Schedule:** fourth quarter. **Deliverables:** report. **Budget:** \$8,380.

Task I.3. Stakeholder Outreach and Involvement. Persons or entities (stakeholders) owning lands within the Dry Creek floodplain or having interests in these lands and their environmental resources would be identified. These stakeholders would be notified of and invited to participate in meetings and workshops related to the habitat restoration plan development. A goal of this effort would be to organize a stakeholder group for the lower Dry Creek watershed that could develop a strategic plan for restoring habitat along the entire floodplain of Dry Creek from Beale AFB downstream to the Bear River. **Schedule:** all four quarters. **Deliverables:** meetings and workshops; stakeholder commitments. **Budget:** \$36,700.

Task I.4. Habitat Restoration Plan. A habitat restoration plan would be developed. The plan would assess the ecological condition of the Dry Creek watershed; guide ecosystem restoration, identify restoration options including basis, costs, and benefits; involve and empower stakeholders in restoration efforts; and prioritize restoration activities. The plan would contain data from reconnaissance surveys; maps and information on important habitat resources; an assessment of the health of important processes, habitats, and species; identification of habitat problems and factors that led to poor habitat conditions; and a description of restoration goals, objectives, management guidelines, and projects to protect, enhance, and restore habitat values. The plan would be consistent with DOD, U.S. Air Force (USAF), and Beale AFB policy, as well as goals and objectives of CALFED and CVPIA-AFRP. **Schedule:** last quarter. **Deliverables:** plan. **Budget:** \$26,200.

Phase II - Restoration Projects (Years 1-3)

Task II.1. Valley Oak Riparian Restoration Project. In this restoration project, approximately 40 acres of floodplain land bordering Dry Creek and Best Slough would be restored to valley oak riparian woodland over a 4-year period. Year 1 of the project would include conducting site design; analyzing floodplain soils and depth to groundwater in the restoration areas; determining planting area layouts, species mixtures, and local sources of plant propagules; contract growing of plant material; and planning an irrigation system. The methods and results of a similar ongoing restoration demonstration at Beale AFB would be evaluated and applied to this restoration project as appropriate. Year 2 includes site preparation; installation of irrigation system, plants, and herbivory protection; and regular irrigation and maintenance. Year 3 includes ongoing maintenance and irrigation. Activities in subsequent years (not included in this proposal) include the third (and final) year of regular irrigation and maintenance. It is anticipated that irrigation would not be needed after this year. Monitoring (not included in this proposal) would be conducted to evaluate plant survival and growth during the first 5 years following plantings. Activities necessary after the third year of this project would be funded by Beale AFB. **Schedule:** years 1-3. **Deliverables:** site design. **Budget:** \$230,010.

Task II.2. Shaded Riverine Aquatic and Riparian Habitat Revegetation Project. In this restoration project, areas along Dry Creek and Best Slough that are lacking SRA and riparian habitat cover would be identified, evaluated, and revegetated. It is estimated that five sites would be revegetated over a 3- to 4-year period. Funding is proposed for years 1, 2, and 3 only. Year 1 would include identifying, evaluating, and prioritizing sites for revegetation; conducting site planning and identifying revegetation constraints; determining prescriptions for revegetation, including planting area layouts, species mixtures, erosion control requirements, and irrigation

needs; and plant propagation. Year 2 would include site preparation; installation of plants, herbivory protection, and an irrigation system (if needed); and regular maintenance (and irrigation if needed). Year 3 would include regular maintenance and irrigation if needed. Year 4, the third (and final) season, would include maintenance and irrigation if needed. Monitoring to evaluate plant survival and growth would occur during the first 5 years following plantings. Again, funding for activities beyond year 3 are not included in this proposal. Long-term funding for these activities would be the responsibility of Beale AFB. **Schedule:** years 1-3. **Deliverables:** site design. **Budget:** \$27,370.

c. Location and/or Geographic Boundaries of the Project

Beale AFB is located in southeastern Yuba County, California (Figure 1). The Dry Creek and Best Slough riparian corridor crosses the southeasterly portion of the AFB (Figure 2). All surveys and restoration activities will occur on Beale AFB property. Watershed planning activities for areas upstream of Beale on Spenceville Wildlife and Recreation Area and downstream to the confluence with the Bear River, will be coordinated with DFG and local stakeholders, respectively.

d. Expected Benefits

This project will provide many benefits that are consistent with the goals and objectives of the CALFED programs, including:

- restoring SRA and valley-foothill stream floodplain riparian habitat;
- enhancing instream aquatic habitats for both native resident and anadromous fishes, including steelhead and fall-run chinook salmon;
- restoring high-quality habitats that could support a diversity of special-status species and other wildlife, including valley elderberry longhorn beetles (VELBs), yellow-breasted chats, yellow warblers, warbling vireos, waterfowl, and riparian wildlife and neotropical migratory birds;
- increasing onsite detention of floodflows through increased floodplain roughness as a result of habitat restoration;
- providing a forum in which to demonstrate restoration techniques for education of stakeholders and other interested parties; and
- providing increased aesthetic value that will improve the recreational value of the area.

e. Background and Ecological/Biological/Technical Justification

Dry Creek is a perennial valley-foothill riparian stream originating on the west side of Wolf Creek Mountain above an elevation of 2,000 feet. It flows westward through the Sierra foothills to the Bear River, a tributary of the Feather River. It is a perennial stream primarily because it carries waters diverted from the upper Bear River and Yuba River watersheds to irrigated lands in the Dry Creek floodplain. Approximately 2.5 miles of the stream flows through DFG's Spenceville Wildlife Management and Recreation Area. Immediately below Spenceville, the creek enters Beale AFB where it continues for over 3.5 miles before entering private lands. In the foothill woodlands on Spenceville and a portion of Beale AFB, the stream flows through a classical foothill canyon streambed cut into bedrock. On Beale AFB, the creek leaves the foothill landform and enters the valley rim, becoming a gravel-lined alluvial stream that is within the

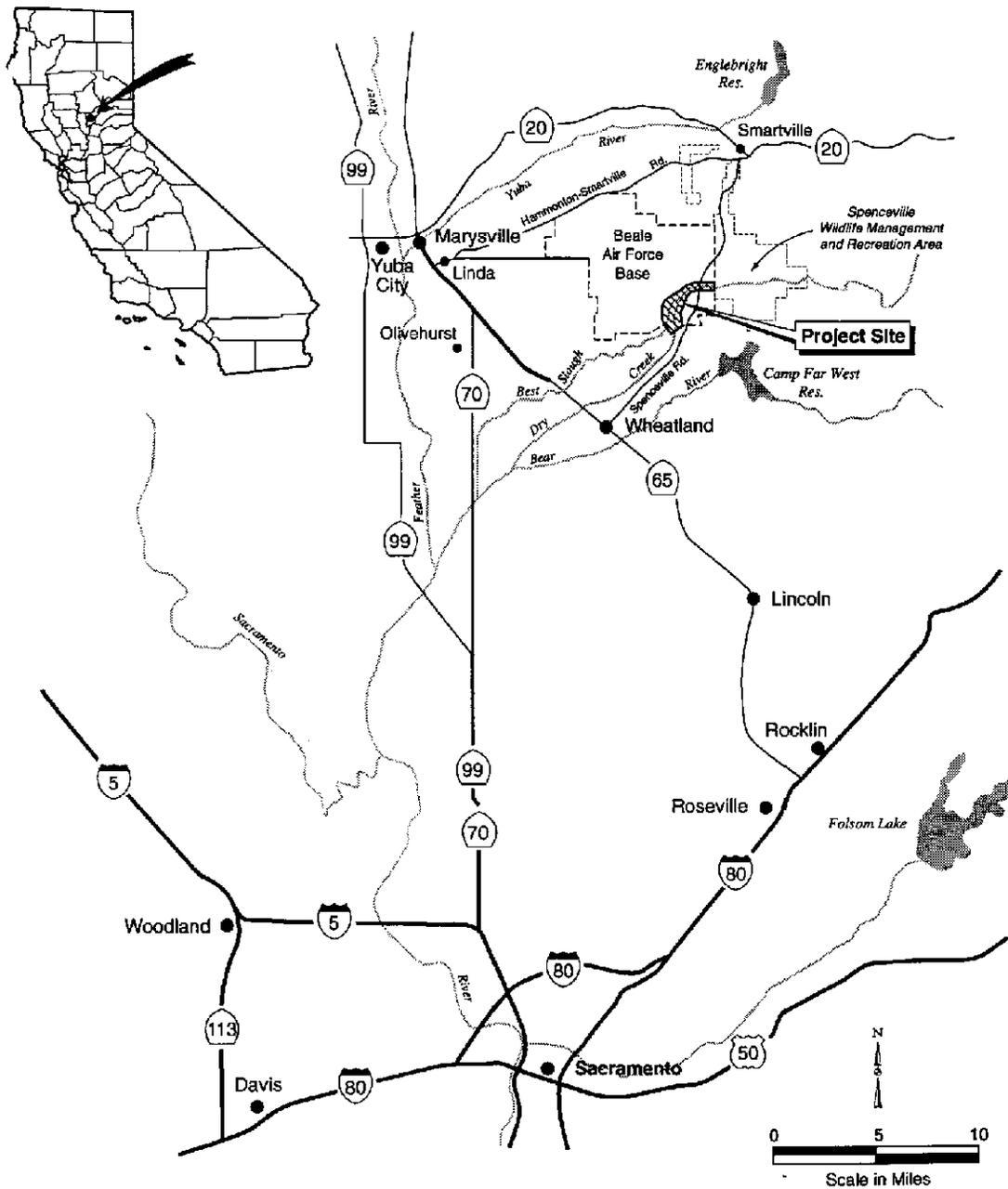


Figure 1. Project Site General Location

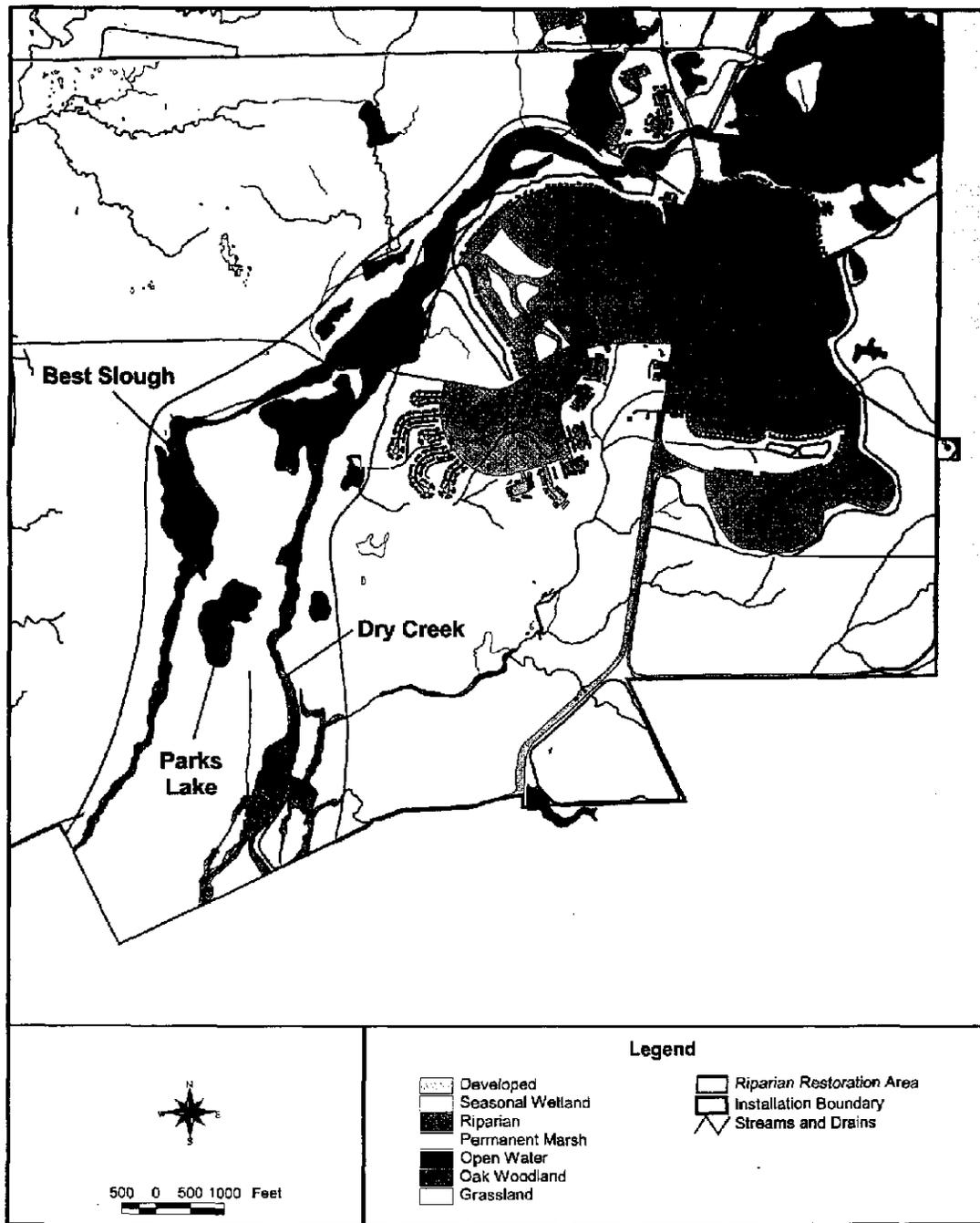


Figure 2. Dry Creek and Best Slough Floodplain Restoration Site at Beale AFB

100-year floodplain. In this portion of the base, the creek splits into two channels, Dry Creek and Best Slough; both channels are low-gradient, pool-riffle streams with suitable spawning riffles and extensive SRA and riparian habitat. The riparian and stream-channel corridor is in a relatively natural state with minimal bank protection and shoreline development. The existing uplands between the two channels presently support non-native annual grasslands, having been cleared of its native valley oak riparian woodland by historical agricultural development.

Current DOD policy includes managing and preserving natural resources through ecosystem management guided by integrated natural resources management plans (INRMPs) and other planning documents. As part of its ecosystem management approach, Beale AFB has designated a 736-acre area along Dry Creek and Best Slough as a riparian preservation area. This area includes all 210 acres of stream and riparian woodlands associated with Dry Creek and Best Slough. This is the most ecologically diverse area on the AFB, providing habitat for steelhead, fall-run chinook, VELB, northwestern pond turtle, yellow-breasted chat, and a host of neotropical migratory songbirds.

Although Feather River hatchery steelhead and fall-run chinook have regularly been planted in Dry Creek by DFG and are known to return in low numbers, the status (e.g., successful spawning and rearing contribution and potential) of the anadromous fishery is not known; potential limiting factors also are not known. To enhance the potential of Dry Creek and allow salmon and steelhead access to upper portions of the watershed, Beale AFB teamed with DFG in 1987 to construct a fish ladder on the Beale Lake dam, a barrier to fish passage after its construction in 1955. Since construction of the fish ladder, adult steelhead have been observed upstream of Beale AFB in the Spenceville Wildlife Area by DFG. Adult fall-run chinook salmon are commonly observed in the creek in the fall spawning season within Beale AFB.

Although Beale AFB is proactively managing the Dry Creek corridor for preservation and enhancement of biological diversity, limited funding precludes additional studies and projects that would be useful in determining the current status and potential for expansion of the anadromous fish populations and SRA and riparian habitats. The proposed scope of work will help implement additional studies and projects and provide information that may be useful in determining the potential for restoring salmon and steelhead runs in similar smaller valley-foothill tributary streams throughout the Sacramento Valley. Planted vegetation in restored areas would be established through initial deep irrigation to promote development of a deep root system and subsequently weaned from irrigation to promote self-sufficiency. By using this method of plant establishment, restored areas would provide long-term floodplain habitat benefits because the established vegetation would be drought resistant and because the deeply rooted vegetation would be resistant to uprooting from floodflows.

The proposed project will specifically address and contribute to the following ERPP objectives and targets:

- Modify channel and basin configuration to improve floodplain function (ERPP Vol 1, page 45);
- Restore riparian habitat along rivers (ERPP Vol 1, page 110);
- Restore fall-run chinook salmon (ERPP Vol 1, page 153);

- Ensure recovery of steelhead (ERPP Vol 1, page 160);
- Maintain and restore the distribution of resident fishes (ERPP Vol 1, page 172);
- Assist in the recovery of the western pond turtle and giant garter snake (ERPP Vol 1, page 229);
- Assist in the recovery of the yellow-billed cuckoo (ERPP Vol 1, page 242);
- Maintain healthy populations of waterfowl, upland game birds, and neotropical migratory birds (ERPP Vol 1, page 260/262/264);
- Assist in maintain populations of VELB (ERPP Vol 1, page 268); and
- Increase the connection of upstream spawning habitat and rearing habitat with mainstem rivers (ERPP Vol 1, page 280).

f. Monitoring and Data Evaluation

Beale AFB is committed to implementing a 3- to 5-year monitoring program to evaluate the effects of the project on sensitive biological resources. Focused surveys will be performed to document the effects of restoring SRA and riparian habitats. Primary objectives will be to monitor the survival and growth of planted riparian vegetation and assess streambank stabilization from revegetation. An annual survey for salmon redds will also be conducted to document changes in the salmon spawning population as compared to the baseline conditions established by this project. Juvenile salmon and steelhead rearing habitat will be monitored for fish use and habitat conditions (e.g., water temperature, cover, etc.). Changes in these indicators would be measures of success of the restoration program. Beale AFB will be responsible for obtaining funding for the long-term monitoring program.

g. Implementability

This project is consistent with current USAF policy for ecosystem management. The lands on which restoration and fishery survey programs would be conducted are owned in fee title by the USAF and are zoned as conservation lands. They occur in an unveeved, unmanaged floodplain, and no California Reclamation Board encroachment permit would be needed. In areas to be restored, no Section 404 Wetland Fill Permit would be needed because no fill would be discharged into wetlands. National Environmental Policy Act (NEPA) compliance for ongoing base expansion is occurring and covers the conservation lands that would be restored. Cultural resources surveys have recently been completed and a cultural resources management plan for the base has been developed.

V. Costs and Schedule to Implement Proposed Project

a. Budget Costs

Table 1 outlines (by task) the direct labor hours, salary, and direct expenses for the USAF. The budget for expert technical assistance (by task) is included under "service contracts". The USAF desires funding support for technical and feasibility studies to augment its present efforts under the INRMP and habitat conservation management plan (HCMP). It is hoped that the project as proposed can be funded by CALFED to expedite its implementation; however, if CALFED chooses to fund this effort in distinct phases, Tasks I.1-I.4 can be considered Phase I and Tasks II.1 and II.2 can be considered Phase II; long-term maintenance and monitoring can be considered Phase III.

The USAF will contribute staff time to both project management and administration of the project. In addition, Beale AFB is contributing considerable natural resources management task time to the project, as well as other ongoing conservation efforts in the Dry Creek and Best Slough watershed on the base. This contribution demonstrates the commitment of the Beale AFB to the project.

b. Schedule Milestones

The USAF is committed to expediting this program. The technical and planning studies and stakeholder activities (Tasks I.1-I.4) will be completed in approximately 12 months. Restoration projects (Tasks II.1 and II.2) are expected to be implemented over the second 12-month period and subsequently monitored for up to 5 more years. Payments are requested by task on completion of each task.

c. Third-Party Impacts

Implementation of the proposed demonstration riparian restoration project will result in minimal and short-term ground disturbance impacts during construction. No third-party impacts are contemplated because most of the project is limited to Beale AFB. The conservancy formation will involve voluntary participation of stakeholders within the Dry Creek watershed. Restoration efforts in the Dry Creek floodplain on Beale AFB will enhance existing aesthetic and recreational values enjoyed by AFB residents and visitors to these conservation lands. Because Dry Creek and Best Slough function as conduits for irrigation water to be transferred to downstream users, particular care will be taken to assess any potential effects on water loss from the stream resulting from project features such as enhanced riparian vegetation.

Table 1. Cost Breakdown

Project Phase and Task	Direct Labor Hours	Direct Salary and Benefits	Overhead Labor (General, Admin. and fee)	Service Contracts	Material and Acquisition Contracts	Miscellaneous and other Direct Costs	Total Cost
PHASE I: Task I.1. Habitat Inventory	50	\$1,000		\$22,000			\$23,000
Task I.2. Fishery Surveys							
Subtask I.2a. Fall Salmon Spawning and Habitat Reconnaissance Surveys	30	600		13,000			13,600
Subtask I.2b. Winter Steelhead Spawning and Habitat Reconnaissance Surveys	21	420		9,000			9,420
Subtask I.2c. Flow and Water Temperature Survey	15	300		7,000			7,300
Subtask I.2d. Fish Passage Survey	9	180		4,000			4,180
Subtask I.2e. Spring Juvenile Fish Survey	22	440		9,000			9,440
Subtask I.2f. Summary Report of the Existing Fishery and the Potential for Population Enhancement.	19	380		8,000			8,380
Task I.3. Stakeholder Outreach and Involvement	85	1,700		35,000			36,700
Task I.4. Habitat Restoration Plan	60	1,200		25,000			26,200
PHASE II: Task II.1. Valley Oak Riparian Restoration Project	509	10,180		210,000	\$9,830		230,010
Task II.2. Shaded Riverine Aquatic and Riparian Habitat Revegetation Project	60	1,200		25,000	1,170		27,370
Totals	880	\$17,600		\$367,000	\$11,000		\$395,600

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VI. Applicant Qualifications

The Beale AFB natural resources management staff will develop and monitor this project. Key staff members and their qualifications are listed below.

Bruce Reinhardt has been a Natural Resources Manager for the USAF for the past 17 years. Since 1982, he has worked at Beale AFB, where he has overseen operations and management of the natural resources on the 23,000-acre base. Major emphases of the program include protecting and managing the fish and wildlife, endangered species, wetlands, and other habitats that occur on the base. Mr. Reinhardt has overseen the basewide mapping of wetlands and endangered species surveys and development of a habitat conservation and management plan, and manages hunting, fishing, and agricultural outlease programs. Many lakes and shallow-water impoundments have been planned and constructed under Mr. Reinhardt's supervision. In the mid-1980s, he also collaborated with DFG to design and construct a fish ladder on the Beale Lake dam to provide passage for returning Dry Creek steelhead and chinook. Mr. Reinhardt received a B.A. in biology from Sonoma State University in 1973 and a M.S. in range management from the University of California, Davis, in 1978.

John Thomson is the Chief of the Environmental Analysis Section at Beale AFB. In this capacity, he oversees the Natural and Cultural Resources Management programs and compliance with the NEPA. He has also been a natural resources planner at the base. As part of his work, Mr. Thomson has overseen and implemented numerous wildlife and vegetation inventories and has planned and supervised a variety of habitat creation and restoration projects. Mr. Thomson received a B.S. in wildlife management from California State University, Humboldt, in 1978.

Joni Rosales has been the Geographic Information Systems (GIS) coordinator and Cultural Resource Manager at Beale AFB since 1994. She has also acted as Cultural Resource Manager for the Department of the Army at Fort Ord, Presidio of Monterey, and Fort Hunter Liggett. At Beale, Ms. Rosales has assisted with the development of the cultural resource management for the base, assists with curation of artifacts, and consults with the State Historic Preservation Office and Native American Councils. She assists with NEPA compliance, including writing and managing environmental assessments and providing coordination with other agencies for compliance with the Clean Water Act and federal Endangered Species Act. She also manages the GIS coverages developed for the base environmental program. Ms. Rosales received a B.S. in landscape architecture from Cal Poly San Luis Obispo in 1992.

Several other agencies or organizations and their staff members, including DFG's Region II Yuba County Wildlife Area Manager, Dale Whitmore, will cooperate with Beale AFB to facilitate the Dry Creek Floodplain Restoration Project.

VII. Compliance with Standard Terms and Conditions

Beale AFB will comply with all terms and conditions presented in Attachment E of the CALFED Proposal Solicitation Package. Attached to this proposal is the required form DI-2010.

U.S. Department of the Interior

**Certifications Regarding Debarment, Suspension and
Other Responsibility Matters, Drug-Free Workplace
Requirements and Lobbying**

Persons signing this form should refer to the regulations referenced below for complete instructions:

Certification Regarding Debarment, Suspension, and Other Responsibility Matters - Primary Covered Transactions - The prospective primary participant further agrees by submitting this proposal that it will include the clause titled, "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transaction," provided by the department or agency entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions. See below for language to be used or use this form for certification and sign. (See Appendix A of Subpart D of 43 CFR Part 12.)

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transactions - (See Appendix B of Subpart D of 43 CFR Part 12.)

Certification Regarding Drug-Free Workplace Requirements - Alternate I (Grantees Other Than Individuals) and Alternate B. (Grantees Who are Individuals) - (See Appendix C of Subpart D of 43 CFR Part 12)

Signature on this form provides for compliance with certification requirements under 43 CFR Parts 12 and 18. The certifications shall be treated as a material representation of fact upon which reliance will be placed when the Department of the Interior determines to award the covered transaction, grant, cooperative agreement or loan.

**PART A: Certification Regarding Debarment, Suspension, and Other Responsibility Matters -
Primary Covered Transactions**

~~CHECK~~ **IF THIS CERTIFICATION IS FOR A PRIMARY COVERED TRANSACTION AND IS APPLICABLE**

- (1) The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:
- (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded by any Federal department or agency;
 - (b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State anti-trust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
 - (c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and
 - (d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.
- (2) Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

**PART B: Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion -
Lower Tier Covered Transactions**

CHECK **IF THIS CERTIFICATION IS FOR A LOWER TIER COVERED TRANSACTION AND IS APPLICABLE**

- (1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- (2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

01-28-88
June 1988
(This form replaces 01-1987, 01-1988,
01-01-84, 01-1988 and 01-1988)

CHECK IF THIS CERTIFICATION IS FOR AN APPLICANT WHO IS NOT AN INDIVIDUAL.

Alternate I. (Grantees Other Than Individuals)

A. The grantee certifies that it will or continue to provide a drug-free workplace by:

- (a) Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the grantee's workplace and specifying the actions that will be taken against employees for violation of such prohibition;
- (b) Establishing an ongoing drug-free awareness program to inform employees about—
 (1) The dangers of drug abuse in the workplace;
 (2) The grantee's policy of maintaining a drug-free workplace;
 (3) Any available drug counseling, rehabilitation, and employee assistance programs; and
 (4) The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace;
- (c) Making it a requirement that each employee to be engaged in the performance of the grant be given a copy of the statement required by paragraph (a);
- (d) Notifying the employee in the statement required by paragraph (a) that, as a condition of employment under the grant, the employee will —
 (1) Abide by the terms of the statement; and
 (2) Notify the employer in writing of his or her conviction for a violation of a criminal drug statute occurring in the workplace no later than five calendar days after such conviction;
- (e) Notifying the agency in writing, within ten calendar days after receiving notice under subparagraph (d)(2) from an employee or otherwise receiving actual notice of such conviction. Employers of convicted employees must provide notice, including position title, to every grant officer on whose grant activity the convicted employee was working, unless the Federal agency has designated a central point for the receipt of such notices. Notice shall include the identification number(s) of each affected grant;
- (f) Taking one of the following actions, within 30 calendar days of receiving notice under subparagraph (d)(2), with respect to any employee who is so convicted —
 (1) Taking appropriate personnel action against such an employee, up to and including termination, consistent with the requirements of the Rehabilitation Act of 1973, as amended; or
 (2) Requiring such employee to participate satisfactorily in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or local health, law enforcement, or other appropriate agency;
- (g) Making a good faith effort to continue to maintain a drug-free workplace through implementation of paragraphs (a) (b), (c), (d), (e) and (f).

B. The grantee may insert in the space provided below the sites for the performance of work done in connection with the specific grant:

Place of Performance (Street address, city, county, state, zip code)

Edle AFB, 9CES/CEV, 6451 B Street, Beale AFB, CA 95903-1708Check if there are workplaces on file that are not identified here.PART D: Certification Regarding Drug-Free Workplace RequirementsCHECK IF THIS CERTIFICATION IS FOR AN APPLICANT WHO IS AN INDIVIDUAL.

Alternate II. (Grantees Who Are Individuals)

- (a) The grantee certifies that, as a condition of the grant, he or she will not engage in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance in conducting any activity with the grant;
- (b) If convicted of a criminal drug offense resulting from a violation occurring during the conduct of any grant activity, he or she will report the conviction, in writing, within 10 calendar days of the conviction, to the grant officer or other designee, unless the Federal agency designates a central point for the receipt of such notices. When notice is made to such a central point, it shall include the identification number(s) of each affected grant.

01-22-88
 June 1985
 (This form replaces 01-1862, 01-1864,
 01-1868, 01-1869 and 01-1871)

**PART E: Certification Regarding Lobbying
Certification for Contracts, Grants, Loans, and Cooperative Agreements**

CHECK IF CERTIFICATION IS FOR THE AWARD OF ANY OF THE FOLLOWING AND THE AMOUNT EXCEEDS \$100,000: A FEDERAL GRANT OR COOPERATIVE AGREEMENT; SUBCONTRACT, OR SUBGRANT UNDER THE GRANT OR COOPERATIVE AGREEMENT.

CHECK IF CERTIFICATION IS FOR THE AWARD OF A FEDERAL LOAN EXCEEDING THE AMOUNT OF \$150,000, OR A SUBGRANT OR SUBCONTRACT EXCEEDING \$100,000, UNDER THE LOAN.

The undersigned certifies, to the best of his or her knowledge and belief, that:

- (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, and officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
- (3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subcontractors shall certify accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

As the authorized certifying official, I hereby certify that the above specified certifications are true.

SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL

EDWARD J. AH-SUM, JR. Deputy BCE

TYPED NAME AND TITLE

DATE 28 Jun 98

05-2010
June 1993
(This form replaces 05-1063, 05-1064,
05-1065, 05-1066 and 05-1067)