



G1001

Westside Resource Conservation District

P.O. Box 205 · Five points, CA 93624 · Phone (209) 227-2489 · FAX (209)

June 26, 1998

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

Dear Sir:

Thank you for the opportunity to submit a CALFED Ecosystem Restoration Project proposal. I am enclosing ten copies of our proposal, "Stewards of the Arroyo Pasajero: Restoring our Watershed". This proposal falls under the Local Watershed Stewardship topic, as the Stewards of the Arroyo Pasajero is a community-based Coordinated Resource Management Planning (CRMP) group. The Stewards of the Arroyo Pasajero CRMP is in the process of writing a comprehensive watershed management plan and is requesting CALFED funds to implement practices that improve water quality and enhance riparian habitat.

If you have any questions or would like to discuss this proposal in further detail, please contact Karen Brown at (209) 445-5386 or karenb@water.ca.gov.

Sincerely,


Morris A. Martin
Manager

Enclosures

CONSERVATION · DEVELOPMENT · SELF-GOVERNMENT

I - 0 1 0 6 4 0

I-010640

COVER SHEET (PAGE 2 of 2)

May 1998 CALFED ECOSYSTEM RESTORATION PROPOSAL SOLICITATION

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

- | | |
|---|---|
| <input type="checkbox"/> State agency | <input type="checkbox"/> Federal agency |
| <input type="checkbox"/> Public/Non-profit joint venture | <input type="checkbox"/> Non-profit |
| <input checked="" type="checkbox"/> Local government/district | <input type="checkbox"/> Private party |
| <input type="checkbox"/> University | <input type="checkbox"/> Other: _____ |

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

- | | |
|-------------------------------------|--|
| <input type="checkbox"/> Planning | <input checked="" type="checkbox"/> Implementation |
| <input type="checkbox"/> Monitoring | <input type="checkbox"/> Education |
| <input type="checkbox"/> Research | |

By signing below, the applicant declares the following:

- (1) the truthfulness of all representations in their proposal;
- (2) the individual signing the form is entitled to submit the application on behalf of the applicant (if applicant is an entity or organization); and
- (3) the person submitting the application has read and understood the conflict of interest and confidentiality discussion in the PSP (Section II.K) and waives any and all rights to privacy and confidentiality of the proposal on behalf of the applicant, to the extent as provided in the Section.



(Signature of Applicant)

Stewards of the Arroyo Pasajero: Restoring our Watershed Westside Resource Conservation District

Project Description & Primary Biological/Ecological Objectives: The 527 square mile, 337,300 acre Arroyo Pasajero watershed is substantially impaired due to natural geologic erosion, which is accelerated by the compaction of rangeland soils and the loss of riparian vegetation, and major floods, which move of massive amounts of sediment, containing naturally occurring asbestos and other components, to the valley floor. These floods result in major damage to agricultural land and crops, property and utilities, Interstate, State and local road systems, Lemoore Naval Air Station, the California Aqueduct, and downstream urban and agricultural facilities receiving aqueduct water.

The objectives of the Stewards of the Arroyo Pasajero Coordinated Resource Management Planning (CRMP) group are to provide public and private stakeholders with the tools they need to increase infiltration rates, reduce runoff and erosion rates, rehabilitate eroded stream channels, enhance riparian ecosystems, and maintain or improve the economic viability of the livestock industry.

Approach/Tasks/Schedule: The CRMP believes that a coordinated, comprehensive watershed approach is essential for developing management strategies that will lead to sustainable, long-term water quality and habitat improvements. The following schedule is proposed for completion of this project: Phase I of this process consists of a problem analysis, to be completed October 1998, a watershed analysis, to be completed February 1999, and a watershed plan, to be completed May 1999. Phase II will consist of developing and implementing the watershed plan through individual ranch plans. \$364,500 in Calfed funds are being requested, approximately one-half of the three-year budget.

Justification for Project and Funding by CALFED: As a tributary to the San Joaquin River, the Arroyo Pasajero watershed is part of the Bay/Delta ecosystem. Riparian habitat for migratory birds within this ecosystem will be restored and enhanced as projects are implemented. Water quality

improvements for the San Joaquin River and Central and Southern California users receiving Arroyo Pasajero and Bay/Delta water from the California Aqueduct, will also result from these projects.

Budget Costs and Third Party Impacts: The CRMP's estimated cost for Phase II of this project is \$253,300 per year, for a total of \$759,900. \$364,500 in Calfed funds is requested to supplement State, federal and private funds. Projects will be implemented by CRMP participants on their own land, and stakeholders are encouraged to participate in the CRMP, so *third party impacts will be minimal.*

Applicant Qualifications: The CRMP's name, "Stewards of the Arroyo Pasajero", represents a desire to protect and enhance the land which, in many cases, has been owned by families for generations. Numerous meetings have taken place, goals have been identified and refined, and the CRMP is hiring a Range Management Specialist to conduct the analyses and write the watershed plan.

Monitoring & Data Evaluation: Eighty percent of the watershed is in private ownership; landowners are willing to perform necessary monitoring. Local universities and community colleges may also participate in monitoring activities. The California Department of Water Resources has an ongoing water quality monitoring program that will be used to establish baseline data and monitor changes water quality changes in the lower watershed. A monitoring element in the watershed plan will use an adaptive management to provide an ongoing evaluation of implemented measures.

Local Support/Coordination with other Programs/Compatibility with CALFED objectives: Technical advisory and steering committees, including six agencies and 15 private landowners, 50 percent of the watershed, have formed to discuss watershed issues. Four water quality plans, covering 70,000 acres, have been completed and several grant proposals have been submitted by individual landowners to implement pilot projects on their property. By restoring riparian habitat for neotropical migratory birds and reducing sediment and contaminants in runoff, the Arroyo Pasajero CRMP can help Calfed meet its goal of reducing the effects of stressors in the Bay-Delta ecosystem.

Stewards of the Arroyo Pasajero: Restoring our Watershed

Name of applicant:

Westside Resource Conservation District
Attn: Mr. Morris Martin
3763 E. Robinson
Fresno, California 93626-5917
Phone: (209)227-2489; Fax: (209)227-0215

Type of Organization and Tax Status:

Resource Conservation District
501 C.3. Non-Profit

Participants/Collaborators in Implementation:

Arroyo Pasajero Watershed landowners and ranchers
Westside Resource Conservation District (Lead Agency)
California Department of Water Resources
California Department of Fish and Game
Central Valley Regional Water Quality Control Board
U.S. Bureau of Reclamation
U.S. Bureau of Land Management
Natural Resource Conservation Service

Stewards of the Arroyo Pasajero: Restoring our Watershed

Project Description and Approach

The 527 square mile, 337,300 acre Arroyo Pasajero watershed is substantially impaired due to natural geologic erosion, which is accelerated by the compaction of rangeland soils and the loss of riparian vegetation, and major floods, which move massive amounts of sediment, containing naturally occurring asbestos and other components, to the valley floor (historically to the San Joaquin River). The flooding results in major damage to agricultural land and crops, property and utilities, Interstate, State and local road systems, the Lemoore Naval Air Station and the California Aqueduct. Sediment-polluted runoff is transported to the California Aqueduct, which then distributes it to the Central Valley, Central Coast and Southern California (over half of the total State water is delivered to the Metropolitan Water District in Southern California), where it causes filtration problems at drinking water treatment plants and increases water treatment costs for municipal and industrial users, accelerates abrasion wear at pumping facilities, clogs drip and micro sprinkler irrigation systems, and decreases its usefulness for groundwater recharge projects. A major flood in the Spring of 1995 destroyed the Arroyo Pasajero Bridge at Interstate Highway 5, resulting in the deaths of seven motorists. The California Aqueduct can be bypassed to allow flood water to reach the San Joaquin River, resulting in large-scale flooding of agricultural land and the Lemoore Naval Air Station.

A Coordinated Resource Management Planning (CRMP) group, "Stewards of the Arroyo Pasajero", has formed to address these problems through a coordinated, comprehensive management effort. The CRMP, a stakeholder group comprised of public and private landowners and State and federal agencies, is requesting funds to prepare and implement a watershed management plan, identifying best management practices (BMPs) that limit pollutants, restore habitat and manage activities that impair beneficial uses in the watershed.

The Natural Resource Conservation Service (NRCS), the California Department of Water Resources (DWR), and the U.S. Bureau of Reclamation (USBR) are providing a range management specialist and a part-time CRMP coordinator, with a landowner acting as co-coordinator, to complete the Phase I watershed analysis and management plan. Using a combination of State, federal, private and Calfed grant funding, the CRMP will complete Phase II by developing corresponding individual ranch plans, implementing selected BMPs, and monitoring them for effectiveness. An adaptive management approach will be used to incorporate monitoring results into future ranch plans and projects. A coordinated, comprehensive watershed approach is essential for developing management strategies that will lead to sustainable, long-term water quality improvements.

Proposed Scope of Work

Prepare a watershed management plan. State and federal funds will be used to conduct a problem analysis and watershed analysis, to be completed in February 1999, and to write a watershed management plan, to be completed in May 1999. This comprehensive plan will identify factors that impair beneficial uses and define best management practices (BMPs) to correct problems. It will be driven by ranchers and landowners and will enable both public and private stakeholders to incorporate methods into their land management strategies which increase infiltration rates, reduce runoff and erosion rates, rehabilitate eroded stream channels, enhance riparian ecosystems, and maintain or improve the economic viability of the livestock industry. Previously completed studies of the watershed will be incorporated, where practical, and work in the upper watershed, although independent, will complement and enhance proposed projects in the lower watershed. The plan will identify funding sources, develop an implementation schedule, and establish priorities and monitoring requirements.

Develop individual ranch plans. Calfed grant funds will be used, along with State, federal and private funds, to develop individual ranch plans consistent with the overall watershed plan. BMPs will be

utilized to reduce pollutants and improve beneficial uses such as livestock grazing and wildlife habitat. BMPs may include installation of cross fences and alternate water supplies, changes in livestock grazing management, vegetation management, and riparian ecosystem restoration. Monitoring will help determine the effectiveness of these measures, and an adaptive management approach will be used to continually improve these plans. Four landowners have already completed water quality ranch plans, covering 70,000 acres, and several more are to be completed by June 2001.

Location and/or Geographic Boundaries of the Project

The Arroyo Pasajero, a 527 square acre watershed encompassing 337,300 acres in southwestern Fresno County and northern Kings County, is the focus of this proposed project. The Arroyo Pasajero, formed by Los Gatos, Warthan, Jacalitos and Zapato Chino Creeks, historically flowed into the San Joaquin River via the Kings River. During average rainfall years, the arroyo now flows under Interstate 5 to the California Aqueduct, where it is transported to downstream urban and agricultural water users along with Bay/Delta water. In flood years, however, the water may be passed under the California Aqueduct to flow to the San Joaquin River. (See Appendix A: Location Map)

Expected Benefits

The primary stressors affecting the Arroyo Pasajero watershed are sediment-borne contaminants and invasive riparian plants. The primary species that will benefit from this project are neotropical migratory birds and other riparian obligate species. Through revegetation and impact management, riparian habitat within this ecosystem will be restored and enhanced, complementing other habitat improvement projects in nearby watersheds and throughout the Bay/Delta ecosystem.

Water quality improvements for Central and Southern California water contractors will also result from these projects. The Arroyo Pasajero currently impacts water quality in the California Aqueduct, due to its sediment load and contaminants, resulting in increased maintenance costs for downstream water

users. Since water from the Bay/Delta also flows into the California Aqueduct, this project will also help achieve the Calfed goal of improved water quality for agricultural and urban water users.

Finally, these projects may increase the capacity of the upper watershed to retain water, which could reduce the amount of damage that is caused by large floods. Although this is a secondary benefit, large-scale flooding from the Arroyo Pasajero can have devastating consequences, so it one is the major motivators for CRMP participants.

Background and Ecological/Biological/Technical Justification

To date, 24 studies have been completed for various portions of the Arroyo Pasajero watershed. Numerous agencies, including DWR, NRCS and the BOR, have completed reports documenting poor water quality and erosion/sediment problems. The U.S. Army Corps of Engineers and DWR are conducting a feasibility study on storage facilities in the lower watershed to reduce future flood damage to the California Aqueduct and other structures. Functioning independently of the COE/DWR study, the CRMP project will complement and enhance the proposed project by addressing runoff and erosion in the upper watershed, thereby extending the life and increasing the effectiveness of these alternatives.

A watershed group has formed, the Stewards of the Arroyo Pasajero CRMP, consisting of public and private landowners and a multi-agency advisory committee, to address the problems in the watershed. Currently, the CRMP participants represent 50 percent of the watershed. The State Water Contractors' support was obtained after consultation with recognized experts in the field who verified the potential benefits that could result from active watershed management in the Arroyo Pasajero. (See appendix C for excerpts from this report supporting BMP implementation.) Based on this recommendation, the CRMP is hiring a range management specialist to complete a watershed analysis and plan by June 1999.

According to the March 1998 draft Ecosystem Restoration Program Plan, the ecological processes addressed by this proposal include Central Valley Streamflows (p. 21) and Upper Watershed Processes (p.

65). The habitat types to be enhanced by this project include Riparian (p. 106), Perennial Grassland (p. 116), and Agricultural Lands (p. 119). Species to benefit include the Neotropical Migratory Bird Guild (p. 264), Special Status Plants (p. 182) and the Western Pond Turtle (p. 227). Stressors that will be reduced include Contaminants (p. 326) and Invasive Riparian Plants (p. 304)

Monitoring and Data Evaluation

Eighty percent of the watershed is in private ownership; landowners are willing to perform the necessary monitoring for implementation of the watershed plan. Local universities and community colleges may also participate in monitoring activities.

The California Department of Water Resources has an ongoing water quality monitoring program that will be used to establish baseline data and monitor changes water quality changes in the lower watershed. An appropriate monitoring strategy for the upper watershed will be identified in the watershed plan and will provide an ongoing evaluation of implemented measures. An adaptive management approach will be used to continue to improve the effectiveness of the program.

Implementability

NEPA/CEQA compliance will be incorporated into the watershed and ranch plans, and all necessary permits will be obtained prior to implementation of recommended best management practices. Financial commitments have been made by ranchers, NRCS, USBR, and DWR. Landowner commitment has also been demonstrated by their continued attendance at CRMP meetings and efforts to obtain political and financial support. Members are driven by a genuine interest in the watershed, not by regulatory requirements. While changes in the watershed through management will take time, stakeholders recognize the lasting economic and environmental gains which can be made with this collaborative effort.

Budget Costs

The Natural Resource Conservation Service (NRCS), the California Department of Water Resources (DWR), and the U.S. Bureau of Reclamation (USBR) have provided \$130,000 in funding to support a range management specialist and a part-time CRMP coordinator. With a landowner acting as co-coordinator of the CRMP, funding for the completion of Phase I, a watershed analysis and watershed management plan, has been obtained. The target date for completion of Phase I is May 1999.

Phase II is ongoing, and began with the development of four water quality ranch plans in September 1997, covering approximately 70,000 acres. More ranch plans are expected to be completed concurrently with Phase I. Calfed funding is needed to continue the development of individual ranch plans for three more years, July 1, 1999, through June 30, 2002, to make comprehensive implementation of the watershed plan possible. The total three-year cost for Phase II is \$759,900. The CRMP is requesting a total of \$364,500, or \$121,500 per year, in Calfed funds. (See Appendix B for itemized budget)

As ranch plans are completed, selected BMPs will be implemented, using a combination of grant, State, federal and private funding. A significant portion of the implementation funds will come from the United States Department of Agriculture's Environmental Quality Incentives Program (EQIP) and Wildlife Habitat Incentives Program (WHIP), grants obtained by individual landowners for use on their own properties. To date, four EQIP contracts, covering 25,000 acres with a federal cost-share of \$127,000 and a landowner cost-share of \$42,000, and one WHIP grant, providing \$10,000, have been signed by landowners within the Arroyo Pasajero watershed.

As measures are implemented, they will be monitored for their effectiveness in enhancing riparian habitat and reducing sediment and contaminants contained in runoff. An adaptive management approach will be used to incorporate monitoring results into future ranch plans.

Schedule Milestones

July 1998	Begin Range Management Specialist contract-- Begin Phase I
October 1998	Complete Problem Analysis
February 1999	Complete Watershed Analysis
May 1999	Complete Watershed Plan-- End Phase I
July 1999	Calfed Grant Supplements Budget-- Begin Phase II
June 2002	Calfed Grant Funding Ends— Phase II Ongoing

Third Party Impacts

Third party impacts will be determined as part of the comprehensive watershed plan. However, these impacts are expected to be minimal, as the Stewards of the Arroyo Pasajero invite and encourage all stakeholders to participate in the CRMP process. Landowners will be implementing projects on their own property through ranch plans that were based on a watershed plan that was developed with extensive input from stakeholders. Through adaptive management and the use of pilot projects, third party impacts can be minimized as monitoring results are incorporated into future ranch plans.

Applicant Qualifications

An interagency agreement is currently being written to coordinate participation between the following members of the Technical Advisory Committee:

Westside Resource Conservation District (Lead Agency): Role/Contribution to Project: The WRCD provides outreach coordination with landowners and has the authority to receive and spend funds for CRMP activities. This agency will be responsible for administering the contract. Mr. Morris Martin has been manager of the WRCD for eight years and has administered numerous other grants.

Central Valley Regional Water Quality Control Board: As a member of the Technical Advisory Committee, Central Valley Regional Water Quality Control Board provides technical guidance and coordination with WQCB programs. Contact: Betty Yee

California Department of Water Resources: DWR is responsible for operating and maintaining the California Aqueduct and is impacted when sediment and flood water enter and/or damage the canal. As a member of the Technical Advisory Committee, DWR provides technical guidance, shares the responsibilities of CRMP coordinator with one of the ranchers, provides staff support to the CRMP and, in an existing Joint Use agreement with USBR, is contributing \$100,000 for support of CRMP activities. Contact: Jack Erickson, Karen Brown

California Department of Fish and Game: As a member of the Technical Advisory Committee, DFG provides technical guidance and assists with permitting needs. Contact: Rod Goss

Natural Resource Conservation Service: The NRCS provides outreach coordination with landowners through the Resource Conservation Districts and CRMP, offers financial and technical assistance, has provided \$30,000 for support of a range conservationist/watershed rehabilitation specialist, offers implementation funds through their EQIP and WHIP programs, and coordinates with the University of California Extension to provide training programs. Contact: Frank Menezes, Dave Durham

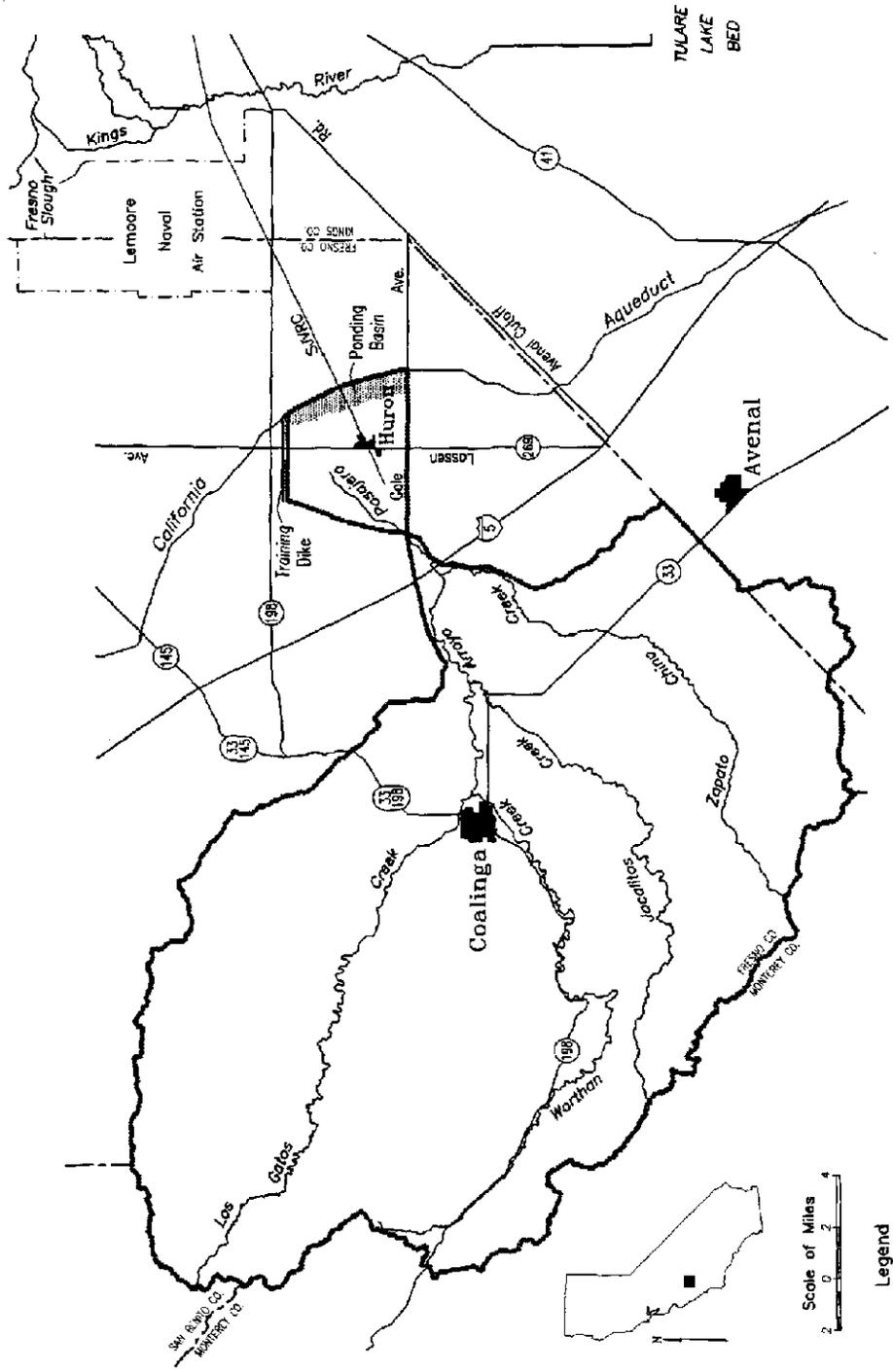
U.S. Bureau of Land Management: The BLM manages grazing leases on approximately twenty percent of the total watershed and acts as both a public landowner and a public agency. They provide technical guidance on range management issues, constitute a source of support, and may use planning results to improve their own management practices. Contact: Tim Moore, Bruce Cotteral

U.S. Bureau of Reclamation: USBR shares the cost of operating and maintaining the California Aqueduct with DWR. Through this partnership, they will share the cost of DWR contributions to the CRMP. As a member of the Technical Advisory Committee, the Bureau provides technical guidance and support. Contact: Floyd Summers

Compliance with Standard Terms and Conditions

Mr. Joe Karkoski, an Environmental Engineer with the Environmental Protection Agency's Northern California Office, the EPA will not be requiring or requesting forms with this application. The necessary forms will be completed when the grant is awarded.

APPENDIX A
LOCATION MAP



Arroyo Pasajero Watershed

Legend
 — Watershed Boundary

Scale of Miles
 0 1 2 3 4

APPENDIX B
ITEMIZED BUDGET

Stewards of the Arroyo Pasajero - Projected Annual Budget (July 1, 1999- June 30, 2002)

Project Tasks	Estimated Hours	Direct Salary and Benefits	Technical Assistance	Overhead (20%)	Total Cost Personnel	Service Contracts	Total Cost Per Task
Work with ranchers and landowners to develop individual ranch plans.	700	\$0	\$70,000	\$14,000	\$84,000	\$0	\$84,000
Implement elements of ranch plans likely to have a significant impact on water quality.	100	\$0	\$10,000	\$2,000	\$12,000	\$100,000	\$112,000
Monitor implemented measures for their effectiveness	20	\$0	\$2,000	\$500	\$2,500	\$20,000	\$22,500
Hold monthly Technical Advisory and Steering Committee Meetings to coordinate CRMP activities	1000	\$6,000	\$1,000	\$1,400	\$8,400	\$0	\$8,400
Hold monthly CRMP meetings to allow stakeholders an opportunity to participate in CRMP activities	1000	\$6,000	\$1,000	\$1,400	\$8,400	\$0	\$8,400
Offer workshops to encourage stakeholder participation. (2 per year)	150	\$5,000	\$0	\$1,000	\$6,000	\$1,000	\$7,000
Provide training to stakeholders in implementation and monitoring of ranch plan elements (2 per year)	150	\$5,000	\$0	\$1,000	\$6,000	\$2,000	\$8,000
Prepare Quarterly and Annual Reports	60	\$2,500	\$0	\$500	\$3,000	\$0	\$3,000
ANNUAL BUDGET	3180	\$24,500	\$84,000	\$21,800	\$130,300	\$123,000	\$253,300
ANNUAL CALFED GRANT					\$98,500	\$23,000	\$121,500
TOTAL BUDGET: 1999-2002	9540	\$73,500	\$252,000	\$65,400	\$390,900	\$369,000	\$759,900
TOTAL CALFED GRANT					\$295,500	\$69,000	\$364,500

Stewards of the Arroyo Pasajero: Restoring our Watershed
 May 1998 Calfed Ecosystem Restoration Proposal

1-010659

1-010659

APPENDIX C
ECOSYSTEM SCIENCES REPORT

**ARROYO PASAJERO WATERSHED
MANAGEMENT PROJECT**

RECOMMENDATIONS AND SUGGESTIONS

prepared for

**California State Water Contractors
Sacramento, California**

prepared by

**Mark Hill
William S. Platts**

Ecosystem Sciences



Capsule Discussion of Watershed Problems

Our experience and knowledge of the watershed, its capabilities, and its problems is limited to the few hours we spent in briefings and field trips. We are certainly not familiar with details of the condition of the watershed, its history, geologic formation, how it functions, or long term problems. Our purpose is to simply provide some added insight into how best to proceed with a conceptual plan to manage the watershed. Therefore, we will not attempt to describe in any detail existing conditions or problems but only present a coarse overview of key issues.

The Arroyo Pasajero watershed is a catchment consisting of four primary collection streams (Los Catos, Warthan, Jacalitos, and Zapato Chino creeks) which drain runoff from higher elevations in the watershed to a huge, low lying alluvial fan. The alluvial fan was formed over geologic time from sediments transported from the upper watershed. Today the fan is intensively cropped and represents high quality agriculture land, while the upper watershed is intensively grazed by livestock. Humans occupy both areas of the watershed and the towns of Coalinga and Huron are located in the watershed. The BLM manages about 40 percent of the land area and the remainder is in private ownership.

The principle problem in the lower watershed results from high flow events transporting sediments and eroding lands along the streams. Large quantities of sediment are carried from the upper watershed on a cushion of water and air at high velocities; this causes severe channel and bank erosion in most reaches of the arroyo. Accelerated streambank and slope erosion in the watershed combined with a 1 in 40 water year in 1995 resulted in the loss of human life (when the Interstate 5 bridge over the arroyo washed out) and extensive property damage throughout the watershed. Mud flows and floods threaten the California Aqueduct and the town of Huron on the alluvial fan. Considerable diking and leveeing has been done over the years to protect the town and the aqueduct and current plans call for even more structural approaches including a major dam to intercept and store flows out of the upper watershed.

Recommended Approach to Watershed Management

We believe that effective watershed management in the Arroyo Pasajero upper watershed will, over time, significantly reduce streambank and land erosion, reduce sediment transport, and improve water holding capacity. Best management practices that focus on upland and riparian grazing issues will also substantially improve the water holding capacity of the watershed. We believe that if given the time to respond to watershed management actions the problems now occurring in the lower watershed will be greatly ameliorated. The natural erosion of sediments, however, will continue and unless the fan is prepared to receive this natural volume of flow and sediment problems downstream will continue. Watershed planning and action programs must be based on a sequential series of steps that define the problem, establish specific goals and objectives, and initiate specific remedial actions.