

MS Number	REGION	Project Type	Milestone	ERP Targets taken from ERPP Vol 2	MS Components or Questions for field personnel	ERP PROJECT NUMBERS	CONTRACT		CALFED Award	Cost Share	Total Project Cost	Applicant	Principal Investigator	Quantifiable Units	Project Name	Comments
							START DATE	END DATE								
54	SAC	EP	requirements. Diversions (water source) into the Yolo Basin should not result in direct or indirect adverse impacts to salmonids. Project design features would include sloughs and creek channels, setback levees, and wetlands, where feasible and consistent with flood protection.		54B. Status of the development and implementation of a program in the Yolo Basin to restore channel-floodplain connectivity and floodplain processes. Design natural stream channel configurations and expand floodplain overflow areas in the lower Cache and Putah Creek floodplains, as well as in channels and sloughs of the upper Yolo Bypass to provide connections with the Delta in a manner consistent with flood control requirements. Diversions (water source) into the Yolo Basin should not result in direct or indirect adverse impacts to salmonids. Project design features would include sloughs and creek channels, setback levees, and wetlands, where feasible and consistent with flood protection.	ERP-96-M13						DWR	Ted Sommer		Yolo Bypass Habitat Restoration Study	The objectives for this study are to examine the relationship between the Yolo Bypass and the rest of the Estuary and to develop recommendations for restoration actions that would improve Bypass habitat for fisheries and other aquatic organisms. The ecological dynamics pertinent to fisheries of three hydrologic phases in the Yolo Bypass will be examined: Inundation, drainage and seasonal pond. Ted Sommer, DWR; The project is a pilot project dealing with the restoration of Putah Creek Flood Plain. Designs are complete. It will improve fish passage and secondarily reduce fish stranding. The project is actually located in the North Delta on Yolo WA property. DWR is waiting for the Yolo WA management plan to be completed, before they go ahead with implementing the project.
54	SAC	EP			54B. Status of the development and implementation of a program in the Yolo Basin to restore channel-floodplain connectivity and floodplain processes. Design natural stream channel configurations and expand floodplain overflow areas in the lower Cache and Putah Creek floodplains, as well as in channels and sloughs of the upper Yolo Bypass to provide connections with the Delta in a manner consistent with flood control requirements. Diversions (water source) into the Yolo Basin should not result in direct or indirect adverse impacts to salmonids. Project design features would include sloughs and creek channels, setback levees, and wetlands, where feasible and consistent with flood protection.	ERP-98-E13	May-99	Jun-02	636,000	0	636,000	National Audubon Society, California Chapter	Judy Boshoven		Union School Slough Watershed Improvement Program	This project will restore banksides of Union School Slough to increase flood capacity, suppress weeds, and provide habitat. Task 8: Lower Slough and Floodplain Planning and Restoration; restoration of .5 miles of lower slough). Vance Russell, Audubon California. Implementation. Project completed. Riparian: 1.05 miles; 56 acres; Grassland treated with prescribed fire: 567 acres; Native perennial grassland restoration: 277 acres; Wetlands/ponds: 15.7 acres; 7 ponds, 1 wetland project.

MULTI SPECIES CONSERVATION STRATEGY MILESTONE 55 -- ROLLED UP SUMMARY

<p>MILESTONE 55 -- Develop and implement temperature management programs within major tributaries in the Sacramento River Basin. The goal of the programs should be achievement of the ERP temperature targets for salmon and steelhead. The programs shall include provisions to: a) develop accurate and reliable water temperature prediction models; b) evaluate the use of minimum carryover storage levels and other operational tools; c) evaluate the use of new facilities such as temperature control devices; and d) recommend operational and/or physical facilities as a long-term solution.</p>	<p>PROJECTS REVIEWED -- ERP-98-B16, ERP-99-N21, ERP-02-P13, CVPIA-02-V03, WSP-02-FP-308, AFRP-03-06</p>	<p>SUMMARY -- Progress is represented by a reconnaissance level study on Battle Creek and a pilot temperature curtain study in Lake Natoma contribute to knowledge of temperature prediction models, help evaluate the use of new facilities and devises, and help to formulate operational and physical facilities for long term solutions to achieve ERP temperature targets for salmon and steelhead. Temperature monitoring and modeling is occurring on Butte Creek where water purchases from Durham Mutual Water Company (5 cfs) and from the M & T Ranch Project (40 cfs) provide for higher and cooler flows as part of the long term solution.</p>		<p>AGENCY NOTES --</p>	<p>NOTES CONT'D --</p>
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MULTI SPECIES CONSERVATION STRATEGY MILESTONE 55 -- EVALUATION OF INDIVIDUAL PROJECTS REVIEWED TO FORMULATE THE ROLLED UP SUMMARY

MS Number	REGION	Project Type	Milestone	ERP Targets taken from ERPP Vol 2	MS Components or Questions for field personnel	ERP PROJECT NUMBERS	CONTRACT		CALFED Award	Cost Share	Total Project Cost	Applicant	Principal Investigator	Quantifiable Units	Project Name	Comments
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55	SAC	EP	Develop and implement temperature management programs within major tributaries in the Sacramento River Basin. The goal of the programs should be achievement of the ERP temperature targets for salmon and steelhead. The programs shall include provisions to: a) develop accurate and reliable water temperature prediction models; b) evaluate the use of minimum carryover storage levels and other operational tools; c) evaluate the use of new facilities such as temperature control devices; and d) recommend operational and/or physical facilities as a long-term solution.		55A.Status of accurate and reliable water temperature prediction models for the major tributaries in the Sacramento River	ERP-98-B16	Sep-98	Jul-04	395,000	0	395,000	U.S. Bureau of Reclamation	Carl Werder		Battle Creek Screens and Fish Passage (Reconnaissance Investigations)	Temperature devices were evaluated. Harry Rectenwald, DFG. Planning / Design; project completed. Other non-CALFED funded projects contributing to milestones.
55	SAC	EP			55A.Status of accurate and reliable water temperature prediction models for the major tributaries in the Sacramento River	ERP-02-P13	Oct-02	Sep-05	600,000	400,000	1,000,000	Hydrologic Research Center	Konstantine Georgakakos		INFORM - Integrated Forecast and Reservoir Management Demonstration for Northern California Water Resources	The purpose of this project is to demonstrate, as well as quantify, the improved efficiency of water management in California for hydropower production, water supply and flood control through implementation of an integrated management system for reservoir operation that incorporates global climate model forecasts. May contribute to temperature management problems. Konstantine Georgakakos, Hydrological Research Center. Planning/Research. Project is 20% complete.

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55	SAC	EP			55A. Status of accurate and reliable water temperature prediction models for the major tributaries in the Sacramento River	ERP-99-N21	Apr-01	Apr-02	250,000	550,000	800,000	Sacramento City-County Office of Metropolitan Water Planning (Water Forum)	Susan Davidson		Development of a River Corridor Management Plan for the Lower American River	The project tasks are: 1) Creates a consensus building process to resolve critical scientific issues, coordinator activities and plans among various agencies and stakeholder forums, and guide broad participation in the development of the River Corridor Management Plan (RCMP); 2) Identify fisheries and aquatic habitat restoration needs and priorities; 3) involve developing an integrated riparian vegetation and preventive erosion control program, a master plan for riparian and terrestrial habitats, and an infrastructure redesign and relocation program for the LAR. John Nelson, DFG. Planning. Project completed.
55	SAC	EP			55A. Status of accurate and reliable water temperature prediction models for the major tributaries in the Sacramento River	CVPIA-02-V03			466,082	0	466,082	The Water Forum	Leo Winternitz		Lake Natoma Temperature Curtains Pilot Project	Focuses on American River thermal issues -- pilot project to evaluate temperature models as a predictive tool. Ceasar Blanco, USFWS.
55	SAC	EP			55A. Status of accurate and reliable water temperature prediction models for the major tributaries in the Sacramento River	AFRP-03-06						AFRP	Cesar Blanco USFWS		Lower American River Temperature Reduction Modeling Project	Objective: To develop predictive tools that will: 1) Reduce to the extent possible the uncertainties in the performance of identified temperature control actions that could be implemented to improve the management of cold water resources in the Folsom/Natoma Reservoir system and the lower American River, and 2) Be available for daily operations, planning, and salmon and steelhead habitat studies by other project operators and other stakeholders. Ongoing
55	SAC	EP			55B. Status of evaluation of operational tools for temperature management in the Sacramento River;	ERP-02-P13	Oct-02	Sep-05	600,000	400,000	1,000,000	Hydrologic Research Center	Konstantine Georgakakos		INFORM - Integrated Forecast and Reservoir Management Demonstration for Northern California Water Resources	The purpose of this project is to demonstrate, as well as quantify, the improved efficiency of water management in California for hydropower production, water supply and flood control through implementation of an integrated management system for reservoir operation that incorporates global climate model forecasts. May contribute to temperature management problems. Konstantine Georgakakos, Hydrological Research Center. Planning/Research. Project is 20% complete.
55	SAC	EP			55B. Status of evaluation of operational tools for temperature management in the Sacramento River;	AFRP-03-06						AFRP	Cesar Blanco USFWS		Lower American River Temperature Reduction Modeling Project	Objective: To develop predictive tools that will: 1) Reduce to the extent possible the uncertainties in the performance of identified temperature control actions that could be implemented to improve the management of cold water resources in the Folsom/Natoma Reservoir system and the lower American River, and 2) Be available for daily operations, planning, and salmon and steelhead habitat studies by other project operators and other stakeholders. Ongoing
55	SAC	EP			55C. Status of the evaluation of the use of temperature control devices on the Sacramento River.											
55	SAC	EP			55 D. Status of a temperature management program which achieves the ERP temperature targets for salmon and steelhead for the Sacramento River	ERP-98-B16	Sep-98	Jul-04	395,000	0	395,000	U.S. Bureau of Reclamation	Carl Werder		Battle Creek Screens and Fish Passage (Reconnaissance Investigations)	Temperature devices were evaluated. Harry Rectenwald, DFG. Planning / Design; project completed.
55	SAC	EP			56 D. Status of a temperature management program which achieves the ERP temperature targets for salmon and steelhead for the Sacramento River	WSP-02-FP-308			67,160	18,900	86,060	Western Shasta RCD	Mary Schroeder		Water Quality Improvement in the Cow Creek Watershed	Develop and implement temperature management programs within major tributaries in the Sacramento River Basin. This project monitors temperatures in Cow Creek a tributary to Sac River. It will develop a strategy for dealing with high temps in order to improve water temps for anadromous fish.

MULTI SPECIES CONSERVATION STRATEGY MILESTONE 56 -- ROLLED UP SUMMARY

<p>MILESTONE 56 -- Develop and implement a program to address the thermal impacts of irrigation return flows in the Sacramento River Basin. The goal of the program should be achieve Basin Plan objectives for water temperature. The program should include provisions to: a) identify locations of irrigation return flows with thermal impacts; b) develop measures to avoid or eliminate thermal impacts from irrigation return flows; and c) prioritize problem sites based on impacts to Chinook salmon and steelhead. If feasible, proceed with implementation of some or all actions to address thermal impacts of irrigation return flows.</p>	<p>PROJECTS REVIEWED - ERP-99-N14</p>		<p>SUMMARY -- One contract was issued that can address thermal objectives within the Sacramento River Basin related to return flows from irrigated lands. This contract provided funding and support for the Colusa Basin Drain Watershed project that assists landowners addressing non-point source pollution, flood control issues, exotic invasive weeds, and reactivating important ecological processes and functions of riparian corridors, including shaded aquatic habitat. The project has completed work at 6 of 12 selected sites, which will implement riparian enhancement and other restoration practices. Development and implementation of a Sacramento River Basin wide program that addresses temperature issues of irrigation return water remains to be accomplished.</p>			<p>AGENCY NOTES --</p>	<p>NOTES CONT'D --</p>
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MULTI SPECIES CONSERVATION STRATEGY MILESTONE 56 -- EVALUATION OF INDIVIDUAL PROJECTS REVIEWED TO FORMULATE THE ROLLED UP SUMMARY

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							START DATE	END DATE								
56	SAC	EP	Develop and implement a program to address the thermal impacts of irrigation return flows in the Sacramento River Basin. The goal of the program should be achieve Basin Plan objectives for water temperature. The program should include provisions to: a) identify locations of irrigation return flows with thermal impacts; b) develop measures to avoid or eliminate thermal impacts from irrigation return flows; and c) prioritize problem sites based on impacts to Chinook salmon and steelhead. If feasible, proceed with implementation of some or all actions to address thermal impacts of irrigation return flows.		56 A. Status of the development of a program to address the thermal impacts of irrigation return flows in the Sacramento River Basin. The goal of the program should be achieve Basin Plan objectives for water temperature.	ERP-99-N14	Jun-01	May-04	492,500	191,000	683,500	Colusa Resource Conservation District	Christopher Rose		Colusa Basin Watershed Project	Contributes to monitoring and restoration efforts along the Colusa Basin (600,000 acres). The Colusa Basin Drain Watershed project will serve as a project that assists private landowners in addressing non-point source pollution, flood control issues, exotic invasive weeds, and reactivating important ecological processes and functions of riparian corridors. The project will consist of 6 to 12 selected sites, which will implement riparian enhancement and other restoration practices. Patti A. Turner, Colusa County Resource Conservation District. Implementation; 75 percent complete. Six sites are done. Monitoring and restoration of 600,000 acres. Land owners, NCRS, and Colusa Basin Drainage funded restoration projects.

MULTI SPECIES CONSERVATION STRATEGY MILESTONE 57 -- ROLLED UP SUMMARY

<p>MILESTONE 57 -- Design and begin implementation of an ecologically based stream flow regulation plan for Yuba River, Butte Creek, Big Chico Creek, Deer Creek, Mill Creek , Antelope Creek, Battle Creek, Cottonwood Creek, and Clear Creek.</p>		<p>PROJECTS REVIEWED - ERP-96-M25, ERP-97-E01, ERP-97-E02, ERP-97-N07, ERP-98-C19, ERP-98-E05, ERP-98-E06, ERP-98-E10, ERP-98-E15, ERP-98-F01, ERP-99-B01, ERP-99-N17, ERP-00-E03, ERP-01-N62, ERP-02D-P53, WSP-01-FP-067, AFRP-00-20, AFRP-00-31, AFRP-01-01, AFRP-01-10</p>	<p>SUMMARY -- Several ERP, AFRP, and Watershed contracts have funded numerous projects on most of these tributaries that should contribute to the design and or implementation of ecologically based stream flow regulation. Mill and Antelope Creeks have not garnered funding to address this milestone.</p>		<p>AGENCY NOTES --</p>	<p>NOTES CONT'D --</p>
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MULTI SPECIES CONSERVATION STRATEGY MILESTONE 57 -- EVALUATION OF INDIVIDUAL PROJECTS REVIEWED TO FORMULATE THE ROLLED UP SUMMARY

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57	SAC	EP	Design and begin implementation of an ecologically based stream flow regulation plan for Yuba River, Butte Creek, Big Chico Creek, Deer Creek, Mill Creek , Antelope Creek, Battle Creek, Cottonwood Creek, and Clear Creek.		57 A. Status of an ecologically based stream flow regulation plan for Yuba River	ERP-98-C19	Nov-98	Jun-99	7,333	0	7,333	USFWS	Carl Mesick		Conduct and Facilitate Meetings on the Upper Yuba River , Engelbright Dam	These address streamflow and erosion issues. Ike Lukenbill, USFWS. Planning ; project completed.
57	SAC	EP			57 A. Status of an ecologically based stream flow regulation plan for Yuba River	ERP-98-E10	Oct-98	May-03	264,000	0	264,000	California Department of Parks and Recreation	Ray Patton		South Yuba River Coordinated Watershed Management Plan	A multi-stakeholder South Yuba River Stewardship Council working with public and private land managing agencies will produce the South Yuba river Coordinated Watershed Management Plan. The goals of this project are to conduct comprehensive survey research regarding recreation uses, public and private use conflicts, and establish a South Yuba River Stewardship Council. May contribute to various Yuba River (EMU) milestones and restoration and/or protect of various habitats including riparian along the South Yuba River. Ian Drury, DFG Planning. Project completed.
57	SAC	EP			57 A. Status of an ecologically based stream flow regulation plan for Yuba River	ERP-99-N17	Jun-00	Jun-03	142,618	0	142,618	Yuba Watershed Council/Nevada County Resource Conservation District	Ron Zinke, Cara Wasilewski, also John Van Der Veen		Yuba Watershed Council: Collaborative Approach	Project is to request funding for a watershed coordinator position, including the materials, equipment, and office space necessary to administer and coordinate the efforts of the Yuba Watershed Council. The role of the watershed coordinator is to provide coordination and assistance, adaptive management and monitoring, education a outreach, and continuity and program oversight of current and future watershed projects. May contribute to various Yuba River (EMU) milestones. John Van Derveen, Yuba Watershed Council. Implementation. Project completed.

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57	SAC	EP			57 A. Status of an ecologically based stream flow regulation plan for Yuba River	WSP-01-FP-067	Jun-01	Jun-04	524,671	54,000	578,671	California State Parks and Recreation	Lorna Dobrovolny		South Yuba River Coordinated Watershed Management Plan	Design and begin implementation of an ecological based stream flow regulation plan for Yuba River, Butte Creek, Big Chico Creek, Deer Creek, Mill Creek, Antelope Creek, Battle Creek, Cottonwood creek, and Clear Creek. Project may contribute to a streamflow regulation plan. Stream flow will be one of the key resources addressed in the watershed based South Yuba River Comprehensive Management Plan.
57	SAC	EP			57 A. Status of an ecologically based stream flow regulation plan for Yuba River	AFRP-01-01			299,606	109,568	409,174	Yuba County Water Agency	Curt Aikens		Narrows 2 Hydro Power Plant Flow Bypass System Design	The Narrows 2 powerplant on the Yuba River just downstream of Englebright Dam. Under existing conditions, anadromous fish in the lower Yuba River can be adversely affected by normal maintenance, emergency operations, and catastrophic failure of the Narrows 2 powerplant or PG&E transmission system. Potential impacts include stranding of juveniles, dewatering of redds, and thermal stress caused by increased river temperatures. Yuba County Water Agency is requesting funding for final engineering design work for a proposed flow bypass system for the Narrows 2 hydroelectric powerplant. The objective is to provide a means of maintaining uninterrupted releases from the Narrows 2 powerplant during temporary or sustained transmission or plant malfunctions for flows up to 3,000 cfs, and, thus, eliminate or substantially reduce flow fluctuations and associated biological impacts caused by scheduled and unscheduled outages of the Narrows 2 powerplant. DFG: Ian Drury, Project is 50% complete - working on designs and permits.
57	SAC	EP			57 A. Status of an ecologically based stream flow regulation plan for Yuba River	ERP-01-N62	Dec-01	Aug-04	193,650	0	193,650	South Yuba River Citizens League	Janet Cohen		Yuba Feather Work Group	Stream flow regulation. Ian Drury,DFG. Planning; 30 percent complete. Yuba County Water Agency funded the Yuba River Salmon Carcass Survey.YWCA and PGE funded Hallwood/Cordura Fish Screens. YWCA,PGE, and Tracy Mitigation funded Browns Valley Fish Screens. DFG funded Spring Run Salmon Counts/Passage @Dagerre Dam
57	SAC	EP			57 B. Status of an ecologically based stream flow regulation plan for Butte Creek	ERP-98-F01	Sep-98	Dec-01	302,745	0	302,745	CSU Chico	Donald Holtgrieve		The Butte Creek Watershed Educational Workshops and Field Tours Series	Contributes to restoration efforts along Butte Creek. The project tasks: 1) Hire the Butte Creek Watershed Coordinator Assistant; 2) Develop the Butte Creek Watershed Education Project; 3) Conduct Butte Creek Watershed Road Survey (identifying sediment problems); 4) Implement the Riparian Education and Geomorphology Analysis of Butte Creek. Paul Ward, DFG. Conduct a road survey that monitors: erosion and sedimentation. Train field personnel and maintain data base. Implementation; project completed.
57	SAC	EP			57 B. Status of an ecologically based stream flow regulation plan for Butte Creek	AFRP-00-31			30,000	70,000	100,000	AFRP	John Icanberry USFWS		Install and maintain real-time flow monitors at the Sanborn Slough Bifurcation Structure on Butte Creek	Provide real-time flow and water quality data to monitor stream conditions during the upstream migration of spring-run chinook salmon and the down-stream migration of juvenile spring-run and late fall-run chinook salmon and steelhead at the Butte Creek/Sanborn Slough bifurcation. The monitoring system will also be used to verify surface water exchanges and the adjudicated division of flow at the bifurcation. Contract between FWS (AFRP) and California Department of Water Resources was signed 7/2000

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57	SAC	EP			57 B. Status of an ecologically based stream flow regulation plan for Butte Creek	AFRP-00-20						AFRP	John Icanberry USFWS		Develop recommendations for enhanced fish passage in the Butte Slough area on lower Butte Creek	Objective: Within the Butte Slough Sub-area, reduce or eliminate delay and injury to Butte Creek adult salmon and steelhead and reduce or eliminate entrainment of juvenile Butte Creek and Sacramento River salmon and steelhead and other listed fish species under controlled-flow conditions while maintaining the viability of associated managed wetlands and agricultural operations. Contract between FWS (AFRP) and Ducks Unlimited, Inc. was signed 8/2000. Initial meetings were held with stakeholders to discuss methodology and process. MBK Engineering developed a list of pumping plants for the Butte Slough area with valid licenses and permits. Follow-up meeting were held with the stakeholders to discuss data gaps and biological and legal issues surrounding the project. A final list of pumping plant sites was reviewed and approved by the stakeholders in September 2002 and the sites were verified on the ground and located using GPS during October 2002. In addition, each site was photographed. A final report will be available in the spring of 2003.
57	SAC	EP			57 C. Status of an ecologically based stream flow regulation plan for Big Chico Creek	ERP-97-E01	Mar-98	Jun-99	422,830	0	422,830	Big Chico Creek Watershed Alliance	Joe Karkoski		Watershed Plan, Big Chico Creek	This project will evaluate and develop a watershed plan for Big Chico Creek. Tasks include assessment of existing conditions, modeling of flow and sediment transport, identification of issues and conflicts, and the development of a watershed management strategy. Contributes to the process of restoration, protection, and management of riparian and floodplain habitat in the Butte Basin (EMZ). Paul Ward, DFG. Planning; project completed. AFRP and DWR funded the design of the fish ladders.
57	SAC	EP			57 D. Status of an ecologically based stream flow regulation plan for Deer Creek	ERP-97-E02	Jan-98	Dec-99	199,554	0	199,554	California State University, Chico	Donald Holtgrieve		Deer Creek Watershed Management/Implementation Program	This project will evaluate and develop a watershed plan for Deer Creek. Tasks include assessment of existing conditions, modeling of flow and sediment transport, identification of issues and conflicts, and the development of a watershed management strategy. Contributes to the process of restoration, protection, and management of riparian and floodplain habitat in the Butte Basin (EMZ). Patricia Bratcher, DFG. Implement water management strategy and water quality program. Implementation; project completed.
57	SAC	EP			57 D. Status of an ecologically based stream flow regulation plan for Deer Creek	ERP-02D-P53	Sep-03	Sep-05	1,519,200	0	1,519,200	Deer Creek Watershed Conservancy	Bill Berens		Lower Deer Creek Restoration and Flood Management: Feasibility Study and Conceptual Design	The goal of the proposed project is to improve aquatic and terrestrial habitat while developing feasible solutions to the flooding problem on lower Deer Creek that are sensitive to the needs and values of the local landowners. This includes feasibility studies to construct setback levees to restore and improve opportunities for floodplain inundation. Vieva Swearingen, Deer Creek Watershed Conservancy. Planning and Design; project just started. (7 percent complete).
57	SAC	EP			57 E. Status of an ecologically based stream flow regulation plan for Mill Creek											
57	SAC	EP			57 F. Status of an ecologically based stream flow regulation plan for Antelope Creek											
57	SAC	EP			57 G. Status of an ecologically based stream flow regulation plan for Battle Creek	ERP-96-M25	May-97	Oct-99	50,000	50,000	100,000	Western Shasta Resource Conservation District	Richard Baumann		Battle Creek Watershed Management Strategy Project	Planning / Education; project completed. Harry Rectenwald, DFG.

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57	SAC	EP			57 G. Status of an ecologically based stream flow regulation plan for Battle Creek	AFRP-01-10	Jun-05	Sep-02	299,606	75,000	224,606	Battle Creek Watershed Conservancy (BCWC)	Sharon Paquin-Gilmore, Watershed Coordinator		Battle Creek Watershed Stewardship, Phase 2	BCWC proposes a project to do all of the following: 1) Complete an assessment of watershed conditions in the upper watershed and in the lands lying immediately upland of Battle Creek's Restoration Project reaches. 2) Implement, in close cooperation with the resource agencies and local schools, a watershed information system to support Restoration Project monitoring, assessment, and adaptive management. 3) Sustain implementation of the Battle Creek Watershed Strategy, through work in the schools and communities, with agencies and landowners, toward the complementary objectives of safeguarding the Battle Creek watershed's lightly-populated, agricultural lifestyle and protecting the public investment in the Battle Creek Salmon and Steelhead Restoration Project. Harry Rectenwald, DFG. Planning / Implementation; 50 percent complete. Project is ongoing. Watershed strategy is complete. Conservation easement planning is complete. Implement an information system for watershed.
57	SAC	EP			57 G. Status of an ecologically based stream flow regulation plan for Battle Creek	ERP-99-B01	Feb-99	Apr-01	26,958,100	23,550,900	50,509,000	DFG and USBR	Harry Rectenwald, Mike Ryan		Battle Creek Salmon and Steelhead Restoration Project	implementation of an ecologically based streamflow regulation plan. Harry Rectenwald, DFG. Planning and Design; 90 percent complete. Planning and design nearly done.
57	SAC	EP			57 G. Status of an ecologically based stream flow regulation plan for Battle Creek	ERP-98-E06	Jan-98	Dec-99	145,000	0	145,000	Battle Creek Watershed Conservancy	Donald Holtgrieve		Battle Creek Watershed Stewardship	This project will evaluate and develop a watershed plan for Battle Creek. Contributes to the process of restoration, protection, and management of riparian and floodplain habitat in the North Sacramento Valley (EMZ). Education / Instruction; project completed. Harry Rectenwald, DFG
57	SAC	EP			57 H. Status of an ecologically based stream flow regulation plan for Cottonwood Creek	ERP-97-N07	Jul-98	Nov-02	61,000	10,000	71,000	Graham Matthews and Associates	Graham Matthews		Cottonwood Creek Channel Restoration Planning	May contribute to milestone since the creek will have channel work. Patricia Bratcher, DFG. Conduct geomorphic analysis, hydrologic analysis and survey sites. Planning/ Implementation; project completed.
57	SAC	EP			57 H. Status of an ecologically based stream flow regulation plan for Cottonwood Creek	ERP-98-E05	Oct-98	Dec-01	161,000	0	161,000	Cottonwood Creek Watershed Group	Vieva Swearingen		Cottonwood Creek Watershed Group Formation	This project will: 1) Identify and organize the landowners to work with public land management agencies, interested parties and resource managers to form consensus on issues and their importance; 2) Coordinate with resources managers which have studied regional needs and correlate those studies with input from stakeholders; 3) Research previous studies within the Cottonwood Creek watershed. Contributes to the process of restoration, protection, and management of riparian and floodplain habitat in the Cottonwood Creek (EMZ). Patricia Bratcher, DFG. Implement watershed stewardship plan for Cottonwood Creek. Implementation; project completed.
57	SAC	EP			57 H. Status of an ecologically based stream flow regulation plan for Cottonwood Creek	ERP-00-E03	Oct-00	Dec-05	443,047	0	443,047	Cottonwood Creek Watershed Group	Vieva Swearingen		Cottonwood Creek Watershed Monitoring and Assessment	Continued management of the Cottonwood Creek Watershed Group (CCWG) to oversee the implementation of a watershed plan. This phase would assess current conditions in the watershed (930 sq miles), both as to the land and stream conditions to give a baseline for future projects. Patricia Bratcher, DFG. Monitoring and Assessment; project completed.
57	SAC	EP			57 I. Status of an ecologically based stream flow regulation plan for Clear Creek.	ERP-98-E15	Oct-98	May-01	23,828	0	23,828	Sacramento Watersheds Action Group	John McCullah		Sulphur Creek Coordinated Watershed Management Plan Group	Sulphur Creek CRMP will distribute the Watershed Analysis, develop community-based restoration objectives, pursue funding to implement projects identified in the Watershed Analysis, and enhance public awareness and education in fishers and watershed issues. May contribute to various habitat restoration, protection, and management milestones for the North Sacramento Valley (EMZ), Clear Creek (EMU). John McCullah, Sacramento Watersheds Action Group. Planning. Project completed.

MULTI SPECIES CONSERVATION STRATEGY MILESTONE 58 -- ROLLED UP SUMMARY

<p>MILESTONE 58 -- Complete a fluvial geomorphic assessment of coarse sediment supply needs and sources to maintain, improve, or supplement gravel recruitment and natural sediment transport processes linked to stream channel maintenance, erosion and deposition, maintenance of fish spawning areas, and the regeneration of riparian vegetation. Develop and implement a program to reduce erosion and maintain gravel recruitment on at least one tributary within each EMZ in the Sacramento River Basin.</p>	<p>PROJECTS REVIEWED - ERP-95-M04, ERP-97-B01, ERP-97-E01, ERP-97-E02, ERP-97-N05, ERP-97-N07, ERP-98-E05, ERP-98-E06, ERP-98-E10, ERP-98-E15, ERP-98-F01, ERP-99-B01, ERP-99-B12, ERP-99-N14, ERP-99-N16, ERP-99-N17, ERP-99-N21, ERP-00-E03, ERP-01-N62, ERP-02-C01-D, ERP-02D-P61,</p>	<p>WSP-02-FP-307, WSP-02-FP-626, AFRP-01-10, AFRP-03-04, AFRP-02-10</p>	<p>SUMMARY -- Several ERP and AFRP contracts have been used to assess coarse sediment supplies and needs linked to erosion and deposition for purposes of maintaining fish spawning areas and regeneration of riparian vegetation. Plans to develop and implement erosion reduction and gravel recruitment have been prepared for at least one tributary within each Sacramento EMZ, except the American Basin where a plan was developed, but not implemented. Issue of programmatic implementation remains to be considered.</p>			<p>AGENCY NOTES --</p>	<p>NOTES CONT'D --</p>
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MULTI SPECIES CONSERVATION STRATEGY MILESTONE 58 -- EVALUATION OF INDIVIDUAL PROJECTS REVIEWED TO FORMULATE THE ROLLED UP SUMMARY

MS Number	REGION	Project Type	Milestone	ERP Targets taken from ERPP Vol 2	MS Components or Questions for field personnel	ERP PROJECT NUMBERS	CONTRACT		CALFED Award	Cost Share	Total Project Cost	Applicant	Principal Investigator	Quantifiable Units	Project Name	Comments
							START DATE	END DATE								
58	SAC	EP	Complete a fluvial geomorphic assessment of coarse sediment supply needs and sources to maintain, improve, or supplement gravel recruitment and natural sediment transport processes linked to stream channel maintenance, erosion and deposition, maintenance of fish spawning areas, and the regeneration of riparian vegetation. Develop and implement a program to reduce erosion and maintain gravel recruitment on at least one tributary within each EMZ in the Sacramento River Basin.		58A. Status of a fluvial geomorphic assessment of coarse sediment supply needs and sources to maintain, improve, or supplement gravel recruitment and natural sediment transport processes linked to stream channel maintenance, erosion and deposition, maintenance of fish spawning areas and the regeneration of riparian vegetation on at least one tributary within each EMZ in the Sacramento River Basin	ERP-95-M04	Sep-95	Oct-95	39,400	13,100	52,500	CDFG	Phil Warner		Keswick Spawning Gravel Restoration	Add 7,000 tons of spawning size gravel stockpiled at Cottonwood Creek to Sacramento River just below Keswick Dam (high river flows will spread gravel downstream); 30 miles. Cal Crawford, DFG. Implementation; project completed. 7,000 tons of spawning size gravel
58	SAC	EP			58A. Status of a fluvial geomorphic assessment of coarse sediment supply needs and sources to maintain, improve, or supplement gravel recruitment and natural sediment transport processes linked to stream channel maintenance, erosion and deposition, maintenance of fish spawning areas and the regeneration of riparian vegetation on at least one tributary within each EMZ in the Sacramento River Basin	ERP-99-B12	3/31/00	4/30/03	2,175,000	0	2,175,000	BLM	Charles Schultz		Riparian Corridor Acquisition and Restoration Assessment	Phase II -- Habitat Restoration Assessment will study the geomorphic and riparian interactions occurring on an alluvial reach on the Sacramento River between the mouth of Cow Creek and Jellys Ferry bridge (RM 280-267), including lower Battle Creek and Anderson Creek, to determining restoration possibilities for the integrated complex that includes lands owned and managed by BLM and others. Includes mapping, coarse sediment supply assessment, stream meander assessment, floodplain processes assessment. 3 miles protected on Sacramento River and 4 miles on Battle Creek. Harry Rectenwald DFG. Implementation; project completed. Acquired a conservation easement of 1412 acres and protected 10 miles of riparian habitat on Battle Creek.

MS Number	REGION	Project Type	Milestone	ERP Targets taken from ERPP Vol 2	MS Components or Questions for field personnel	ERP PROJECT NUMBERS	CONTRACT		CALFED Award	Cost Share	Total Project Cost	Applicant	Principal Investigator	Quantifiable Units	Project Name	Comments
							START DATE	END DATE								
58	SAC	EP			58A. Status of a fluvial geomorphic assessment of coarse sediment supply needs and sources to maintain, improve, or supplement gravel recruitment and natural sediment transport processes linked to stream channel maintenance, erosion and deposition, maintenance of fish spawning areas and the regeneration of riparian vegetation on at least one tributary within each EMZ in the Sacramento River Basin	AFRP-02-10						AFRP	JD Wikert USFWS		Knights Ferry Gravel Replenishment Project, Phase 2	Objective: Continue to investigate how the source and size of restoration gravel affect fall-run Chinook salmon redd densities. Phase I was ERP-97-N21. Egg survival studies are planned for fall 2004 in spawning riffles to evaluate natural riffles and artificial riffles from both 1999 and 2004.
58	SAC	EP			58A. Status of a fluvial geomorphic assessment of coarse sediment supply needs and sources to maintain, improve, or supplement gravel recruitment and natural sediment transport processes linked to stream channel maintenance, erosion and deposition, maintenance of fish spawning areas and the regeneration of riparian vegetation on at least one tributary within each EMZ in the Sacramento River Basin	AFRP-03-04						AFRP	Cesar Blanco USFWS		SHIRA-Based River Analysis and Field-Based Manipulative Sediment Transport Experiments to Balance Habitat and Geomorphic Goals on the Lower Yuba River	Objective: The specific objectives of the proposed research are to 1) collaborate with on-going biological, hydrological, and geomorphic studies so that an integrated database of monitoring information useful for SHIRA can be organized, 2) characterize the fluvial geomorphology, sediment transport dynamics, and in-stream hydraulics of key potential spawning reaches above and below the LYR Narrows at the ecologically relevant scale of .1-1 m resolution, and 3) experiment on different gravel placement strategies for the LYR, taking advantage of the available annual high discharges to evaluate sediment transport processes. Ongoing
58	SAC	EP			58A. Status of a fluvial geomorphic assessment of coarse sediment supply needs and sources to maintain, improve, or supplement gravel recruitment and natural sediment transport processes linked to stream channel maintenance, erosion and deposition, maintenance of fish spawning areas and the regeneration of riparian vegetation on at least one tributary within each EMZ in the Sacramento River Basin	ERP-99-N21	Apr-01	Apr-02	250,000	550,000	800,000	Sacramento City-County Office of Metropolitan Water Planning (Water Forum)	Susan Davidson		Development of a River Corridor Management Plan for the Lower American River	The project tasks are: 1) Creates a consensus building process to resolve critical scientific issues, coordinator activities and plans among various agencies and stakeholder forums, and guide broad participation in the development of the River Corridor Management Plan (RCMP); 2) Identify fisheries and aquatic habitat restoration needs and priorities; 3) involve developing an integrated riparian vegetation and preventive erosion control program, a master plan for riparian and terrestrial habitats, and an infrastructure redesign and relocation program for the LAR. John Nelson, DFG. Planning. Project completed.
58	SAC	EP			58A. Status of a fluvial geomorphic assessment of coarse sediment supply needs and sources to maintain, improve, or supplement gravel recruitment and natural sediment transport processes linked to stream channel maintenance, erosion and deposition, maintenance of fish spawning areas and the regeneration of riparian vegetation on at least one tributary within each EMZ in the Sacramento River Basin	ERP-02D-P61			1,640,801	380,000	2,020,801	The Nature Conservancy	Wendy Duron		Implementing a Collaborative Approach to Quantifying Ecosystem Flow Regime Needs for the Sacramento River	This project will quantify ecosystem flow regime needs for the Sacramento River between Red Bluff and Colusa. This is a targeted research project utilizing a collaborative workshop process, targeted field investigations, quantitative computer modeling, and a decision analysis tool to formulate linkages between the flow regime and ecosystem components. Task 2, Sub-task 1: Quantify and refine the relationship between flows and sediment transport; determine the flows required to initiate bed and bar mobility on the Sacramento River; Sub-task 2: Quantify cottonwood root growth rates; Sub-task 3: Quantify fluvial geomorphic processes that create and maintain off-channel habitats; Sub-task 5: Assess and compare the effects of bank protection on in-channel habitat; Sub-task 6: Refine a meander migration model; Sub-task 7: Quantify frequency and spatial extent of cottonwood recruitment conditions.

MS Number	REGION	Project Type	Milestone	ERP Targets taken from ERPP Vol 2	MS Components or Questions for field personnel	ERP PROJECT NUMBERS	CONTRACT		CALFED Award	Cost Share	Total Project Cost	Applicant	Principal Investigator	Quantifiable Units	Project Name	Comments
							START DATE	END DATE								
58	SAC	EP			58B. Status of the development of a program to reduce erosion in one tributary of the North Sacramento Valley EMZ (Clear Creek, Cow Creek, Bear Creek, Battle Creek)	ERP-99-B12	3/31/00	4/30/03	2,175,000	0	2,175,000	BLM	Charles Schultz		Riparian Corridor Acquisition and Restoration Assessment	Phase II -- Habitat Restoration Assessment will study the geomorphic and riparian interactions occurring on an alluvial reach on the Sacramento River between the mouth of Cow Creek and Jellys Ferry bridge (RM 280-267), including lower Battle Creek and Anderson Creek, to determining restoration possibilities for the integrated complex that includes lands owned and managed by BLM and others. Includes mapping, coarse sediment supply assessment, stream meander assessment, floodplain processes assessment. 3 miles protected on Sacramento River and 4 miles on Battle Creek. Harry Rectenwald, DFG. Implementation; project completed. Acquired a conservation easement of 1412 acres and protected 10 miles of riparian habitat on Battle Creek.
58	SAC	EP			58B. Status of the development of a program to reduce erosion in one tributary of the North Sacramento Valley EMZ (Clear Creek, Cow Creek, Bear Creek, Battle Creek)	ERP-98-E15	Oct-98	May-01	23,828	0	23,828	Sacramento Watersheds Action Group	John McCullah		Sulphur Creek Coordinated Watershed Management Plan Group	Sulphur Creek CRMP will distribute the Watershed Analysis, develop community-based restoration objectives, pursue funding to implement projects identified in the Watershed Analysis, and enhance public awareness and education in fishers and watershed issues. May contribute to various habitat restoration, protection, and management milestones for the North Sacramento Valley (EMZ), Clear Creek (EMU). John McCullah, Sacramento Watersheds Action Group. Planning. Project completed.
58	SAC	EP			58B. Status of the development of a program to reduce erosion in one tributary of the North Sacramento Valley EMZ (Clear Creek, Cow Creek, Bear Creek, Battle Creek)	ERP-99-N16	Apr-00	Apr-02	256,260	0	256,260	Western Shasta Resource Conservation District	Thomas T. Engstrom		Clear Creek Prescription	Plan to reduce erosion in stream or tributary. Mary Schroeder, Western Shasta Resource Conservation District. Planning / Implementation; project completed. Implement watershed management prescription.
58	SAC	EP			58B. Status of the development of a program to reduce erosion in one tributary of the North Sacramento Valley EMZ (Clear Creek, Cow Creek, Bear Creek, Battle Creek)	WSP-02-FP-307			335,489	300,000	635,489	Western Shasta Resource Conservation District	Mary Schroeder		Lower Clear Creek Spawning Gravel Injections	This is a gravel infusion project for Lower Clear Creek. It is strictly artificial augmentation.
58	SAC	EP			58B. Status of the development of a program to reduce erosion in one tributary of the North Sacramento Valley EMZ (Clear Creek, Cow Creek, Bear Creek, Battle Creek)	AFRP-01-10	2000 ?	9/30/02 ?	299,606 ?	75,000	224,606	Battle Creek Watershed Conservancy (BCWC)	Sharon Paquin-Gilmore, Watershed Coordinator		Battle Creek Watershed Stewardship, Phase 2	BCWC proposes a project to do all of the following: 1) Complete an assessment of watershed conditions in the upper watershed and in the lands lying immediately upland of Battle Creek's Restoration Project reaches. 2) Implement, in close cooperation with the resource agencies and local schools, a watershed information system to support Restoration Project monitoring, assessment, and adaptive management. 3) Sustain implementation of the Battle Creek Watershed Strategy, through work in the schools and communities, with agencies and landowners, toward the complementary objectives of safeguarding the Battle Creek watershed's lightly-populated, agricultural lifestyle and protecting the public investment in the Battle Creek Salmon and Steelhead Restoration Project. Harry Rectenwald, DFG. Planning / Implementation; 50 percent complete. Project is ongoing. Watershed strategy is complete. Conservation easement planning is complete. Implement an information system for watershed.

MS Number	REGION	Project Type	Milestone	ERP Targets taken from ERPP Vol 2	MS Components or Questions for field personnel	ERP PROJECT NUMBERS	CONTRACT		CALFED Award	Cost Share	Total Project Cost	Applicant	Principal Investigator	Quantifiable Units	Project Name	Comments
							START DATE	END DATE								
58	SAC	EP			58C. Status of the implementation of a program to reduce erosion in one tributary of the North Sacramento Valley EMZ (Clear Creek, Cow Creek, Bear Creek, Battle Creek)	AFRP-01-10	2000 ?	9/30/02 ?	299,606 ?	75,000	224,606	Battle Creek Watershed Conservancy (BCWC)	Sharon Paquin-Gilmore, Watershed Coordinator		Battle Creek Watershed Stewardship, Phase 2	BCWC proposes a project to do all of the following: 1) Complete an assessment of watershed conditions in the upper watershed and in the lands lying immediately upland of Battle Creek's Restoration Project reaches. 2) Implement, in close cooperation with the resource agencies and local schools, a watershed information system to support Restoration Project monitoring, assessment, and adaptive management. 3) Sustain implementation of the Battle Creek Watershed Strategy, through work in the schools and communities, with agencies and landowners, toward the complementary objectives of safeguarding the Battle Creek watershed's lightly-populated, agricultural lifestyle and protecting the public investment in the Battle Creek Salmon and Steelhead Restoration Project. Harry Rectenwald, DFG. Planning / Implementation; 50 percent complete. Project is ongoing. Watershed strategy is complete. Conservation easement planning is complete. Implement an information system for watershed.
58	SAC	EP			58C. Status of the implementation of a program to reduce erosion in one tributary of the North Sacramento Valley EMZ (Clear Creek, Cow Creek, Bear Creek, Battle Creek)	ERP-99-N16	Apr-00	Apr-02	256,260	0	256,260	Western Shasta Resource Conservation District	Thomas T. Engstrom		Clear Creek Prescription	Plan to reduce erosion in stream or tributary. Mary Shroeder, Western Shasta Resource Conservation District. Planning / Implementation; project completed. Implement watershed management prescription.
56	SAC	EP			58C. Status of the implementation of a program to reduce erosion in one tributary of the North Sacramento Valley EMZ (Clear Creek, Cow Creek, Bear Creek, Battle Creek)	ERP-98-E06	Jan-98	Dec-99	145,000	0	145,000	Battle Creek Watershed Conservancy	Donald Holtgrieve		Battle Creek Watershed Stewardship	This project will evaluate and develop a watershed plan for Battle Creek. Contributes to the process of restoration, protection, and management of riparian and floodplain habitat in the North Sacramento Valley (EMZ). Education / Instruction; project completed. Harry Rectenwald, DFG
58	SAC	EP			58C. Status of the implementation of a program to reduce erosion in one tributary of the North Sacramento Valley EMZ (Clear Creek, Cow Creek, Bear Creek, Battle Creek)	ERP-99-B01	Feb-99	Apr-01	26,958,100	23,550,900	50,509,000	DFG and USBR	Harry Rectenwald, Mike Ryan		Battle Creek Salmon and Steelhead Restoration Project	Proposal plans to improve habitat along streambed which may involve planting trees to control erosion. Planning and Design; 90 percent complete. Planning and design nearly done.
58	SAC	EP			58D. Status of the development of a program to reduce erosion in one tributary of the Cottonwood Creek EMZ (Upper Cottonwood Creek, Lower Cottonwood Creek)	ERP-98-E05	Oct-98	Dec-01	161,000	0	161,000	Cottonwood Creek Watershed Group	Vieva Swearingen		Cottonwood Creek Watershed Group Formation	This project will: 1) Identify and organize the landowners to work with public land management agencies, interested parties and resource managers to form consensus on issues and their importance; 2) Coordinate with resources managers which have studied regional needs and correlate those studies with input from stakeholders; 3) Research previous studies within the Cottonwood Creek watershed. Contributes to the process of restoration, protection, and management of riparian and floodplain habitat in the Cottonwood Creek (EMZ). Patricia Bratcher, DFG. Implement watershed stewardship plan for Cottonwood Creek. Implementation; project completed.
56	SAC	EP			58D. Status of the development of a program to reduce erosion in one tributary of the Cottonwood Creek EMZ (Upper Cottonwood Creek, Lower Cottonwood Creek)	ERP-00-E03	Oct-00	Dec-05	443,047	0	443,047	Cottonwood Creek Watershed Group	Vieva Swearingen		Cottonwood Creek Watershed Monitoring and Assessment	Continued management of the Cottonwood Creek Watershed Group (CCWG) to oversee the implementation of a watershed plan. This phase would assess current conditions in the watershed (930 sq miles), both as to the land and stream conditions to give a baseline for future projects. Patricia Bratcher, DFG. Monitoring and Assessment; project completed.
58	SAC	EP			58E. Status of the implementation of a program to reduce erosion in one tributary of the Cottonwood Creek EMZ (Upper Cottonwood Creek, Lower Cottonwood Creek)	ERP-97-N07	Jul-98	Nov-02	61,000	10,000	71,000	Graham Matthews and Associates	Graham Matthews		Cottonwood Creek Channel Restoration Planning	May contribute to milestone since the creek will have channel work. Patricia Bratcher, DFG. Conduct geomorphic analysis, hydrologic analysis and survey sites. Planning/ Implementation; project completed.

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							START DATE	END DATE								
58	SAC	EP			58F. Status of the development of a program to reduce erosion in one tributary of the Colusa Basin EMZ (Stony Creek, Elder Creek, Thomes Creek, Colusa Basin)	ERP-99-N14	Jun-01	May-04	492,500	191,000	683,500	Colusa Resource Conservation District	Christopher Rose		Colusa Basin Watershed Project	Contributes to monitoring and restoration efforts along the Colusa Basin (600,000 acres). The Colusa Basin Drain Watershed project will serve as a project that assists private landowners in addressing non-point source pollution, flood control issues, exotic invasive weeds, and reactivating important ecological processes and functions of riparian corridors. The project will consist of 6 to 12 selected sites, which will implement riparian enhancement and other restoration practices. Patti A. Turner, Colusa County Resource Conservation District. Implementation; 75 percent complete. Six sites are done. Monitoring and restoration of 600,000 acres.
58	SAC	EP			58G. Status of the implementation of a program to reduce erosion in one tributary of the Colusa Basin EMZ (Stony Creek, Elder Creek, Thomes Creek, Colusa Basin)	ERP-99-N14	Jun-01	May-04	492,500	191,000	683,500	Colusa Resource Conservation District	Christopher Rose		Colusa Basin Watershed Project	Contributes to monitoring and restoration efforts along the Colusa Basin (600,000 acres). The Colusa Basin Drain Watershed project will serve as a project that assists private landowners in addressing non-point source pollution, flood control issues, exotic invasive weeds, and reactivating important ecological processes and functions of riparian corridors. The project will consist of 6 to 12 selected sites, which will implement riparian enhancement and other restoration practices. Patti A. Turner, Colusa County Resource Conservation District. Implementation; 75 percent complete. Six sites are done. Monitoring and restoration of 600,000 acres.
58	SAC	EP			58H. Status of the development of a program to reduce erosion in one tributary of the Butte Basin EMZ (Paynes Creek, Antelope Creek, Mill Creek, Deer Creek, Big Chico Creek, Butte Creek, Butte Sink)	ERP-97-B01	Mar-98	Mar-01	371,000	69,000	440,000	Lassen National Forest	L. Stephen Young		Watershed improvement: stabilization of potential sediment sources within the Deer, Mill, and Antelope Creek Watersheds on Lassen National Forest Lands	This project will stabilize known sediment sources for the purpose of providing long term benefits to spring-run chinook salmon and steelhead habitat. Project will plan for future road-related erosion control measures. Regina Cherovsky, Reclamation District 2035. Planning / Design. Project completed.
58	SAC	EP			58H. Status of the development of a program to reduce erosion in one tributary of the Butte Basin EMZ (Paynes Creek, Antelope Creek, Mill Creek, Deer Creek, Big Chico Creek, Butte Creek, Butte Sink)	ERP-97-E01	Mar-98	Jun-99	422,830	0	422,830	Big Chico Creek Watershed Alliance	Joe Karkoski		Watershed Plan, Big Chico Creek	This project will evaluate and develop a watershed plan for Big Chico Creek. Tasks include assessment of existing conditions, modeling of flow and sediment transport, identification of issues and conflicts, and the development of a watershed management strategy. Contributes to the process of restoration, protection, and management of riparian and floodplain habitat in the Butte Basin (EMZ). Paul Ward, DFG. Planning; project completed. AFRP and DWR funded the design of the fish ladders.
58	SAC	EP			58H. Status of the development of a program to reduce erosion in one tributary of the Butte Basin EMZ (Paynes Creek, Antelope Creek, Mill Creek, Deer Creek, Big Chico Creek, Butte Creek, Butte Sink)	ERP-97-E02	Jan-98	Dec-99	199,554	0	199,554	California State University, Chico	Donald Holtgrieve		Deer Creek Watershed Management/Implementation Program	This project will evaluate and develop a watershed plan for Deer Creek. Tasks include assessment of existing conditions, modeling of flow and sediment transport, identification of issues and conflicts, and the development of a watershed management strategy. Contributes to the process of restoration, protection, and management of riparian and floodplain habitat in the Butte Basin (EMZ). Patricia Bratcher, DFG. Implement water management strategy and water quality program. Implementation; project completed.
58	SAC	EP			58H. Status of the development of a program to reduce erosion in one tributary of the Butte Basin EMZ (Paynes Creek, Antelope Creek, Mill Creek, Deer Creek, Big Chico Creek, Butte Creek, Butte Sink)	ERP-98-F01	Sep-98	Dec-01	302,745	0	302,745	CSU Chico	Donald Holtgrieve		The Butte Creek Watershed Educational Workshops and Field Tours Series	Contributes to restoration efforts along Butte Creek. The project tasks: 1) Hire the Butte Creek Watershed Coordinator Assistant; 2) Develop the Butte Creek Watershed Education Project; 3) Conduct Butte Creek Watershed Road Survey (identifying sediment problems); 4) Implement the Riparian Education and Geomorphology Analysis of Butte Creek. Paul Ward, DFG. Conduct a road survey that monitors: erosion and sedimentation. Train field personnel and maintain data base. Implementation; project completed.

MS Number	REGION	Project Type	Milestone	ERP Targets taken from ERPP Vol 2	MS Components or Questions for field personnel	ERP PROJECT NUMBERS	CONTRACT		CALFED Award	Cost Share	Total Project Cost	Applicant	Principal Investigator	Quantifiable Units	Project Name	Comments
							START DATE	END DATE								
58	SAC	EP			58I. Status of the implementation of a program to reduce erosion in one tributary of the Butte Basin EMZ (Paynes Creek, Antelope Creek, Mill Creek, Deer Creek, Big Chico Creek, Butte Creek, Butte Sink)	ERP-97-B01	Mar-98	Mar-01	371,000	69,000	440,000	Lassen National Forest	L. Stephen Young		Watershed improvement: stabilization of potential sediment sources within the Deer, Mill, and Antelope Creek Watersheds on Lassen National Forest Lands	This project will stabilize known sediment sources for the purpose of providing long term benefits to spring-run chinook salmon and steelhead habitat. Project will implement erosion control measures at known sites. Regina Cherovsky, Reclamation District 2035. Planning / Design. Project completed.
58	SAC	EP			58J. Status of the development of a program to reduce erosion in one tributary of the Feather River/Sutter Basin EMZ (Feather River, Yuba River, Bear River, Honcut Creek, Sutter Bypass)	ERP-98-E10	Oct-98	May-03	264,000	0	264,000	California Department of Parks and Recreation	Ray Patton		South Yuba River Coordinated Watershed Management Plan	A multi-stakeholder South Yuba River Stewardship Council working with public and private land managing agencies will produce the South Yuba river Coordinated Watershed Management Plan. The goals of this project are to conduct comprehensive survey research regarding recreation uses, public and private use conflicts, and establish a South Yuba River Stewardship Council. May contribute to various Yuba River (EMU) milestones and restoration and/or protect of various habitats including riparian along the South Yuba River. Ian Drury, DFG Planning. Project completed.
58	SAC	EP			58J. Status of the development of a program to reduce erosion in one tributary of the Feather River/Sutter Basin EMZ (Feather River, Yuba River, Bear River, Honcut Creek, Sutter Bypass)	ERP-99-N17	Jun-00	Jun-03	142,618	0	142,618	Yuba Watershed Council/Nevada County Resource Conservation District	Ron Zinke, Cara Wasilewski, also John Van Der Veen		Yuba Watershed Council: Collaborative Approach	Project is to request funding for a watershed coordinator position, including the materials, equipment, and office space necessary to administer and coordinate the efforts of the Yuba Watershed Council. The role of the watershed coordinator is to provide coordination and assistance, adaptive management and monitoring, education a outreach, and continuity and program oversight of current and future watershed projects. May contribute to various Yuba River (EMU) milestones. John Van Derveen, Yuba Watershed Council. Implementation. Project completed.
58	SAC	EP			58J. Status of the development of a program to reduce erosion in one tributary of the Feather River/Sutter Basin EMZ (Feather River, Yuba River, Bear River, Honcut Creek, Sutter Bypass)	ERP-01-N62	Dec-01	Aug-04	193,650	0	193,650	South Yuba River Citizens League	Janet Cohen		Yuba Feather Work Group	Reduce erosion in Yuba River. Ian Drury, DFG. Planning; 30 percent complete. Yuba County Water Agency funded the Yuba River Salmon Carcass Survey, YWCA and PGE funded Hallwood/ Cordura Fish Screens. YWCA, PGE, and Tracy Mitigation funded Browns Valley Fish Screens. DFG funded Spring Run Salmon Counts/Passage @Dagerre Dam
58	SAC	EP			58J. Status of the development of a program to reduce erosion in one tributary of the Feather River/Sutter Basin EMZ (Feather River, Yuba River, Bear River, Honcut Creek, Sutter Bypass)	AFRP-03-04						AFRP	Cesar Blanco USFWS		SHIRA-Based River Analysis and Field-Based Manipulative Sediment Transport Experiments to Balance Habitat and Geomorphic Goals on the Lower Yuba River	Objective: The specific objectives of the proposed research are to 1) collaborate with on-going biological, hydrological, and geomorphic studies so that an integrated database of monitoring information useful for SHIRA can be organized, 2) characterize the fluvial geomorphology, sediment transport dynamics, and in-stream hydraulics of key potential spawning reaches above and below the LYR Narrows at the ecologically relevant scale of .1-1 m resolution, and 3) experiment on different gravel placement strategies for the LYR, taking advantage of the available annual high discharges to evaluate sediment transport processes. Ongoing
58	SAC	EP			58K. Status of the implementation of a program to reduce erosion in one tributary of the Feather River/Sutter Basin EMZ (Feather River, Yuba River, Bear River, Honcut Creek, Sutter Bypass)	ERP-99-N17	Jun-00	Jun-03	142,618	0	142,618	Yuba Watershed Council/Nevada County Resource Conservation District	Ron Zinke, Cara Wasilewski, also John Van Der Veen		Yuba Watershed Council: Collaborative Approach	Project is to request funding for a watershed coordinator position, including the materials, equipment, and office space necessary to administer and coordinate the efforts of the Yuba Watershed Council. The role of the watershed coordinator is to provide coordination and assistance, adaptive management and monitoring, education a outreach, and continuity and program oversight of current and future watershed projects. May contribute to various Yuba River (EMU) milestones. John Van Derveen, Yuba Watershed Council. Implementation. Project completed.
58	SAC	EP			58K. Status of the implementation of a program to reduce erosion in one tributary of the Feather River/Sutter Basin EMZ (Feather River, Yuba River, Bear River, Honcut Creek, Sutter Bypass)	WSP-02-FP-626			1,011,575	1,129,574	2,141,149	Nevada County Land Trust	Ronald Mathis		South Yuba Watershed Project	Project will assist in implementing projects to control erosion, improve water quality, improve aquatic/terrestrial habitats on South Yuba River

MULTI SPECIES CONSERVATION STRATEGY MILESTONE 59 -- ROLLED UP SUMMARY

<p>MILESTONE 59 -- Develop floodplain management plans, including feasibility studies to construct setback levees, to restore and improve opportunities for rivers to inundate their floodplain on a seasonal basis for at least one tributary within each of the EMZs in the Sacramento River Basin. Among the areas to be included are the lower 10 miles of Clear Creek, Antelope Creek, and Deer Creek, and the lower reach of Cottonwood Creek.</p>		<p>PROJECTS REVIEWED - ERP-95-M01, ERP-96-M16, ERP-97-C03, ERP-97-E01, ERP-97-E02, ERP-97-N02, ERP-97-N03A, ERP-97-N04, ERP-97-N05, ERP-97-N07, ERP-98-E05, ERP-98-E06, ERP-98-E15, ERP-98-F01, ERP-99-B12, ERP-99-N14, ERP-00-E03, ERP-00-F03, ERP-01-N28, ERP-01-N62, ERP-02-C05-D, ERP-02D-P53, ERP-02-P16-D, ERP-02-P27, AFRP-01-10, AFRP-00-01, AFRP-00-15,</p>	<p>AFRP-00-16, AFRP-03-07</p>	<p>SUMMARY -- Several ERP and AFRP contracts and other program funds have funded numerous feasibility studies for setback levees and floodplain management plans to allow for seasonal inundation of floodplains on various tributaries in each EMZ of the Sacramento River Basin. While much of the work has been done on the upper-Sacramento River itself, specific projects have been targeted for Sulfur, Big Chico, Mud, Battle, Deer, Butte and lower Cottonwood Creeks. Some contracts fund complete projects, including the hiring of watershed coordinators and other staff, while others fund only certain project phases, such as mapping, planning, or permitting.</p>			<p>AGENCY NOTES --</p>	<p>NOTES CONT'D --</p>
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MULTI SPECIES CONSERVATION STRATEGY MILESTONE 59 -- EVALUATION OF INDIVIDUAL PROJECTS REVIEWED TO FORMULATE THE ROLLED UP SUMMARY

MS Number	REGION	Project Type	Milestone	ERP Targets taken from ERPP Vol 2	MS Components or Questions for field personnel	ERP PROJECT NUMBERS	CONTRACT		CALFED Award	Cost Share	Total Project Cost	Applicant	Principal Investigator	Quantifiable Units	Project Name	Comments
							START DATE	END DATE								
59	SAC	EP	Develop floodplain management plans, including feasibility studies to construct setback levees, to restore and improve opportunities for rivers to inundate their floodplain on a seasonal basis for at least one tributary within each of the EMZs in the Sacramento River Basin. Among the areas to be included are the lower 10 miles of Clear Creek, Antelope Creek, and Deer Creek, and the lower reach of Cottonwood Creek.		59A. Status of floodplain management plans, including feasibility studies to construct setback levees in the Sacramento River EMZ (Keswick to Red Bluff, Red Bluff to Chico Landing, Chico Landing to Colusa, Colusa to Verona, Verona to Sacramento)	ERP-96-M16	Aug-97	Sep-98	1,450,200	0	1,450,200	California State University, Chico	Charles W. Nelson		Sacramento River & Major Tributaries Riparian Corridor Mapping Project	Mapping of riparian vegetation along rivers and streams in the Sacramento Valley portions of Glenn, Sutter, Colusa, Yuba, Yolo, and Sacramento Counties. Contributes to the process of restoring the Sacramento River Basin (EMZ), protecting Inner River Zone areas between Red Bluff and Colusa reaches within identified the Sacramento River Conservation, restoration and protection of riparian habitat in the Sacramento River Basin (EMZ). Mapped riparian vegetation, open water, gravel bars, disturbed riparian, and invasive (Arundo, Tamarix, Rubus discolor) throughout the Sacramento River and major tributaries. Monitoring; project completed.
59	SAC	EP			59A. Status of floodplain management plans, including feasibility studies to construct setback levees in the Sacramento River EMZ (Keswick to Red Bluff, Red Bluff to Chico Landing, Chico Landing to Colusa, Colusa to Verona, Verona to Sacramento)	ERP-97-C03	Jul-98	Dec-00	200,000	0	200,000	CDWR	Stacy Cepello		Upper Sacramento River Restoration Planning	This project will provide for a restoration coordinator to guide the formalization of non-profit management entity and related restoration planning of the Upper Sacramento River Watershed. Tasks include hiring a coordinator, setting up organizational structure, oversight and agreements, developing and implementing public outreach, and developing a plan for Woodson Bridge and one other sub-reach. Contributes to the process of restoring the Sacramento River Basin (EMZ), protecting Inner River Zone areas between Red Bluff and Colusa reaches within identified the Sacramento River Conservation, restoration and protection of riparian habitat in the Sacramento River Basin (EMZ). Planning; project completed. The project setup a non-profit management entity and for restoration planning of the Upper Sacramento River Watershed. The Army Corps of Engineers have taken over the planning and implementation for the Woodson Bridge restoration efforts.

MS Number	REGION	Project Type	Milestone	ERP Targets taken from ERPP Vol 2	MS Components or Questions for field personnel	ERP PROJECT NUMBERS	CONTRACT		CALFED Award	Cost Share	Total Project Cost	Applicant	Principal Investigator	Quantifiable Units	Project Name	Comments
							START DATE	END DATE								
59	SAC	EP			59A. Status of floodplain management plans, including feasibility studies to construct setback levees in the Sacramento River EMZ (Keswick to Red Bluff, Red Bluff to Chico Landing, Chico Landing to Colusa, Colusa to Verona, Verona to Sacramento)	ERP-99-B12	3/31/00	4/30/03	2,175,000	0	2,175,000	BLM	Charles Schultz		Riparian Corridor Acquisition and Restoration Assessment	Phase II -- Habitat Restoration Assessment will study the geomorphic and riparian interactions occurring on an alluvial reach on the Sacramento River between the mouth of Cow Creek and Jellys Ferry bridge (RM 280-267), including lower Battle Creek and Anderson Creek, to determining restoration possibilities for the integrated complex that includes lands owned and managed by BLM and others. Includes mapping, coarse sediment supply assessment, stream meander assessment, floodplain processes assessment. 3 miles protected on Sacramento River and 4 miles on Battle Creek. Harry Rectenwald, DFG. Implementation. Project completed.
59	SAC	EP			59A. Status of floodplain management plans, including feasibility studies to construct setback levees in the Sacramento River EMZ (Keswick to Red Bluff, Red Bluff to Chico Landing, Chico Landing to Colusa, Colusa to Verona, Verona to Sacramento)	ERP-02-C05-D	Nov-02	Oct-04	495,000	345,000	840,000	The Reclamation Board	Pete Rabbon		Hamilton City Ecosystem Restoration and Flood Damage Reduction: Chico Landing Sub-Reach	Project will restore connection t the floodplain and expand riparian habitat to the maximum extent possible, 2,600 acres, in the Hamilton City area while simultaneously reducing the flood risk to local residents. This includes feasibility studies to construct setback levees to restore and improve opportunities for floodplain inundation. Burt Bundy, Sacramento River Conservation Area Forum. Planning for 6.8 miles of setback levees (MS 59A), 1,500 acres increase in floodplain (MS 59B), restore 1,000 acres of riparian habitat (MS 62G), properties located within the Inner River Zone areas between Red Bluff and Colusa reaches stretch may be habitat for Bank Swallow will be protected (MS 60A&B). Draft plan is complete. Currently seeking public comment.
59	SAC	EP			59A. Status of floodplain management plans, including feasibility studies to construct setback levees in the Sacramento River EMZ (Keswick to Red Bluff, Red Bluff to Chico Landing, Chico Landing to Colusa, Colusa to Verona, Verona to Sacramento)	ERP-02D-P53	Sep-03	Sep-05	1,519,200	0	1,519,200	Deer Creek Watershed Conservancy	Bill Berens		Lower Deer Creek Restoration and Flood Management: Feasibility Study and Conceptual Design	The goal of the proposed project is to improve aquatic and terrestrial habitat while developing feasible solutions to the flooding problem on lower Deer Creek that are sensitive to the needs and values of the local landowners. This includes feasibility studies to construct setback levees to restore and improve opportunities for floodplain inundation. Vieva Swearingen, Deer Creek Watershed Conservancy. Planning and Design; project just started. (7 percent complete).
59	SAC	EP			59A. Status of floodplain management plans, including feasibility studies to construct setback levees in the Sacramento River EMZ (Keswick to Red Bluff, Red Bluff to Chico Landing, Chico Landing to Colusa, Colusa to Verona, Verona to Sacramento)	ERP-02-P27			1,488,009	0	1,488,009	The Nature Conservancy	Greg Golet		Sub-reach Planning for the Sacramento River: River Mile 144-164	Floodplain management plans for the Sacramento River Mile 144 - 164. 20 miles. Cathy Morris, The Nature Conservancy. Planning; project less than 1% completed. The project has just started.
59	SAC	EP			59A. Status of floodplain management plans, including feasibility studies to construct setback levees in the Sacramento River EMZ (Keswick to Red Bluff, Red Bluff to Chico Landing, Chico Landing to Colusa, Colusa to Verona, Verona to Sacramento)	ERP-97-N02	Feb-98	Feb-01 ?	9,879,800	5,257,000	15,136,800	TNC, USFWS, Wildlife Conservation Board	John Carlon, Gary Kramer, Scott Clemons		Sacramento River Floodplain Acquisition and Riparian Restoration	This project will acquire 1,500 acres in Cesa or fee title that will include SRA, instream aquatic, riparian and riverine aquatic and compatibly managed agricultural lands. Acquired 1,084 acres for riparian restoration. Cathy Morris, The Nature Conservancy. Project completed, Acquisition
59	SAC	EP			59A. Status of floodplain management plans, including feasibility studies to construct setback levees in the Sacramento River EMZ (Keswick to Red Bluff, Red Bluff to Chico Landing, Chico Landing to Colusa, Colusa to Verona, Verona to Sacramento)	AFRP-00-01			52,000		52,000	AFRP			Study the feasibility of restoring floodplain and riparian processes at the La Barranca Unit of the Sacramento River National Wildlife Refuge	Objective: Determine the feasibility of eliminating a source of fish mortality resulting from past gravel mining operations at the site and to restore riparian processes lost to the existing levee system. The field work is complete and the final report is complete (10-02). Click here to view the final report. (Administered by Sacramento National Wildlife Refuge)

MS Number	REGION	Project Type	Milestone	ERP Targets taken from ERPP Vol 2	MS Components or Questions for field personnel	ERP PROJECT NUMBERS	CONTRACT		CALFED Award	Cost Share	Total Project Cost	Applicant	Principal Investigator	Quantifiable Units	Project Name	Comments
							START DATE	END DATE								
59	SAC	EP			59A. Status of floodplain management plans, including feasibility studies to construct setback levees in the Sacramento River EMZ (Keswick to Red Bluff, Red Bluff to Chico Landing, Chico Landing to Colusa, Colusa to Verona, Verona to Sacramento)	AFRP-03-07						AFRP	Tricia Parker, USFWS		Environmental Compliance and Hydraulic Evaluation of the La Barranca Unit of the Sacramento River National Wildlife Refuge	Objective: Conduct engineering analysis, develop several design alternatives, and complete an Environmental Assessment (EA) for floodplain restoration of the non-functioning levees and old gravel pits of the La Barranca site on the upper Sacramento River. On-going.
59	SAC	EP			59B. Status of floodplain management plans to restore and improve opportunities for rivers to inundate their floodplain on a seasonal basis in the Sacramento River EMZ (Keswick to Red Bluff, Red Bluff to Chico Landing, Chico Landing to Colusa, Colusa to Verona, Verona to Sacramento)	AFRP-03-07						AFRP	Tricia Parker, USFWS		Environmental Compliance and Hydraulic Evaluation of the La Barranca Unit of the Sacramento River National Wildlife Refuge	Objective: Conduct engineering analysis, develop several design alternatives, and complete an Environmental Assessment (EA) for floodplain restoration of the non-functioning levees and old gravel pits of the La Barranca site on the upper Sacramento River. Ongoing.
59	SAC	EP			59B. Status of floodplain management plans to restore and improve opportunities for rivers to inundate their floodplain on a seasonal basis in the Sacramento River EMZ (Keswick to Red Bluff, Red Bluff to Chico Landing, Chico Landing to Colusa, Colusa to Verona, Verona to Sacramento)	ERP-97-N02	Feb-98	Feb-04	9,879,800	5,257,000	15,136,800	TNC, USFWS, Wildlife Conservation Board	John Carlon, Gary Kramer, Scott Clemons		Sacramento River Floodplain Acquisition and Riparian Restoration	This project will acquire 1,500 acres in Ces or fee title that will include SRA, instream aquatic, riparian and riverine aquatic and compatibly managed agricultural lands. Acquired 1,084 acres for riparian restoration. Cathy Morris, The Nature Conservancy. Project completed, Acquisition
59	SAC	EP			59B. Status of floodplain management plans to restore and improve opportunities for rivers to inundate their floodplain on a seasonal basis in the Sacramento River EMZ (Keswick to Red Bluff, Red Bluff to Chico Landing, Chico Landing to Colusa, Colusa to Verona, Verona to Sacramento)	ERP-01-N28	Oct-01	Oct-04	541,747	0	541,747	CDWR	Burt Bundy		Sacramento River Conservation Area Program	The project involves hiring a manager and office staff for a three-year period to assist in the development and implementation of site-specific plans for areas with in the Sacramento River Riparian Conservation Area, and to manage a new nonprofit riparian land management entity that will coordinate activities and continue the process of building broader support and understanding of the goals of the SB 1086 program. Burt Bundy, Sacramento River Conservation Area Forum. Planning; project completed. The project provided funding to continue the efforts of the Sacramento River Conservation Area Program to act as a coordinating body between local, state, and federal agencies regarding restoration activities in the Sacramento River watershed.
59	SAC	EP			59B. Status of floodplain management plans to restore and improve opportunities for rivers to inundate their floodplain on a seasonal basis in the Sacramento River EMZ (Keswick to Red Bluff, Red Bluff to Chico Landing, Chico Landing to Colusa, Colusa to Verona, Verona to Sacramento)	ERP-02D-P53	Sep-03	Sep-05	1,519,200	0	1,519,200	Deer Creek Watershed Conservancy	Bill Berens		Lower Deer Creek Restoration and Flood Management: Feasibility Study and Conceptual Design	The goal of the proposed project is to improve aquatic and terrestrial habitat while developing feasible solutions to the flooding problem on lower Deer Creek that are sensitive to the needs and values of the local landowners. This includes feasibility studies to construct setback levees to restore and improve opportunities for floodplain inundation. Vieva Swearingen; Deer Creek Watershed Conservancy. Planning and Design; project just started. (7 percent complete).

MS Number	REGION	Project Type	Milestone	ERP Targets taken from ERPP Vol 2	MS Components or Questions for field personnel	ERP PROJECT NUMBERS	CONTRACT		CALFED Award	Cost Share	Total Project Cost	Applicant	Principal Investigator	Quantifiable Units	Project Name	Comments
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59	SAC	EP			59B. Status of floodplain management plans to restore and improve opportunities for rivers to inundate their floodplain on a seasonal basis in the Sacramento River EMZ (Keswick to Red Bluff, Red Bluff to Chico Landing, Chico Landing to Colusa, Colusa to Verona, Verona to Sacramento	ERP-02-C05-D	Nov-02	Oct-04	495,000	345,000	840,000	The Reclamation Board	Pete Rabbon		Hamilton City Ecosystem Restoration and Flood Damage Reduction: Chico Landing Sub-Reach	Project will restore connection t the floodplain and expand riparian habitat to the maximum extent possible, 2,600 acres, in the Hamilton City area while simultaneously reducing the flood risk to local residents. This includes feasibility studies to construct setback levees to restore and improve opportunities for floodplain inundation. Burt Bundy, Sacramento River Conservation Area Forum. Planning for 6.8 miles of setback levees (MS 59A), 1,500 acres increase in floodplain (MS 59B), restore 1,000 acres of riparian habitat (MS 62G), properties located within the Inner River Zone areas between Red Bluff and Colusa reaches stretch may be habitat for Bank Swallow will be protected (MS 60A&B). Draft plan is complete. Currently seeking public comment.
59	SAC	EP			59B. Status of floodplain management plans to restore and improve opportunities for rivers to inundate their floodplain on a seasonal basis in the Sacramento River EMZ (Keswick to Red Bluff, Red Bluff to Chico Landing, Chico Landing to Colusa, Colusa to Verona, Verona to Sacramento	ERP-99-B12	3/31/00	4/30/03	2,175,000	0	2,175,000	BLM	Charles Schultz		Riparian Corridor Acquisition and Restoration Assessment	Phase II -- Habitat Restoration Assessment will study the geomorphic and riparian interactions occurring on an alluvial reach on the Sacramento River between the mouth of Cow Creek and Jellys Ferry bridge (RM 280-267), including lower Battle Creek and Anderson Creek, to determining restoration possibilities for the integrated complex that includes lands owned and managed by BLM and others. Includes mapping, coarse sediment supply assessment, stream meander assessment, floodplain processes assessment. 3 miles protected on Sacramento River and 4 miles on Battle Creek. Harry Rectenwald DFG. Implementation. Project completed.
59	SAC	EP			59B. Status of floodplain management plans to restore and improve opportunities for rivers to inundate their floodplain on a seasonal basis in the Sacramento River EMZ (Keswick to Red Bluff, Red Bluff to Chico Landing, Chico Landing to Colusa, Colusa to Verona, Verona to Sacramento	ERP-96-M16	Aug-97	Sep-98	1,450,200	0	1,450,200	California State University, Chico	Charles W. Nelson		Sacramento River & Major Tributaries Riparian Corridor Mapping Project	Mapping of riparian vegetation along rivers and streams in the Sacramento Valley portions of Glenn, Sutter, Colusa, Yuba, Yolo, and Sacramento Counties. Contributes to the process of restoring the Sacramento River Basin (EMZ), protecting Inner River Zone areas between Red Bluff and Colusa reaches within identified the Sacramento River Conservation, restoration and protection of riparian habitat in the Sacramento River Basin (EMZ). Mapped riparian vegetation, open water, gravel bars, disturbed riparian, and invasive (Arundo, Tamarix, Rubus discolor) throughout the Sacramento River and major tributaries. Monitoring; project completed.
59	SAC	EP			59B. Status of floodplain management plans to restore and improve opportunities for rivers to inundate their floodplain on a seasonal basis in the Sacramento River EMZ (Keswick to Red Bluff, Red Bluff to Chico Landing, Chico Landing to Colusa, Colusa to Verona, Verona to Sacramento	ERP-97-C03	Jul-98	Dec-00	200,000	0	200,000	CDWR	Stacy Cepello		Upper Sacramento River Restoration Planning	This project will provide for a restoration coordinator to guide the formalization of non-profit management entity and related restoration planning of the Upper Sacramento River Watershed. Tasks include hiring a coordinator, setting up organizational structure, oversight and agreements, developing and implementing public outreach, and developing a plan for Woodson Bridge and one other sub-reach. Contributes to the process of restoring the Sacramento River Basin (EMZ), protecting Inner River Zone areas between Red Bluff and Colusa reaches within identified the Sacramento River Conservation, restoration and protection of riparian habitat in the Sacramento River Basin (EMZ). Planning; project completed. The project setup a non-profit management entity and for restoration planning of the Upper Sacramento River Watershed. The Army Corps of Engineers have taken over the planning and implementation for the Woodson Bridge restoration efforts.

MS Number	REGION	Project Type	Milestone	ERP Targets taken from ERPP Vol 2	MS Components or Questions for field personnel	ERP PROJECT NUMBERS	CONTRACT		CALFED Award	Cost Share	Total Project Cost	Applicant	Principal Investigator	Quantifiable Units	Project Name	Comments
							START DATE	END DATE								
59	SAC	EP			59B. Status of floodplain management plans to restore and improve opportunities for rivers to inundate their floodplain on a seasonal basis in the Sacramento River EMZ (Keswick to Red Bluff, Red Bluff to Chico Landing, Chico Landing to Colusa, Colusa to Verona, Verona to Sacramento)	ERP-00-F03	Jun-00	May-03	519,000	0	519,000	The Nature Conservancy	Sam Lawson		Floodplain Acquisition and Sub-Reach/Site-Specific Management Planning on the Sacramento River (Red Bluff to Colusa)	This contract provides for the planning component of this project. Site specific management planning will be conducted on the Beehive Bend subreach (RM 165-176). This contract will support progress towards the project goals for implementation of a limited meander corridor. Modeling will be used to evaluate the interactions of land use changes with flood control infrastructure, and strategies for maximizing aquatic habitat diversity in the sub-reach.. Task 1: Survey, model, and evaluate potential changes in hydrology and geomorphology. Task 4: Identify future conservation and management actions for the Beehive Bend sub-reach. Mike Roberts, The Nature Conservancy. Planning; project completed.
59	SAC	EP			59B. Status of floodplain management plans to restore and improve opportunities for rivers to inundate their floodplain on a seasonal basis in the Sacramento River EMZ (Keswick to Red Bluff, Red Bluff to Chico Landing, Chico Landing to Colusa, Colusa to Verona, Verona to Sacramento)	ERP-02-P27	?	?	1,488,009	0	1,488,009	The Nature Conservancy	Greg Golet		Sub-reach Planning for the Sacramento River: River Mile 144-164	Restore and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along the Chico Landing to Colusa reach of the Sacramento River EMZ. Unspecified amount will be restored, all will be maintained. Project is in the planning phase. Cathy Morris; The Nature Conservancy. Planning; project less than 1% completed. The project has just started.
59	SAC	EP			59B. Status of floodplain management plans to restore and improve opportunities for rivers to inundate their floodplain on a seasonal basis in the Sacramento River EMZ (Keswick to Red Bluff, Red Bluff to Chico Landing, Chico Landing to Colusa, Colusa to Verona, Verona to Sacramento)	ERP-97-N03A	Dec-98	Dec-01	780,000	0	780,000	The Nature Conservancy	Meghan Mazzoni		Sacramento River-Active Restoration of Riparian Forest	Will restore 200 acres of flood-prone agricultural lands to native riparian forest along the Sacramento River. Ryan Luster, The Nature Conservancy. Implementation; 204 acres were restored to riparian habitat, project completed.
59	SAC	EP			59B. Status of floodplain management plans to restore and improve opportunities for rivers to inundate their floodplain on a seasonal basis in the Sacramento River EMZ (Keswick to Red Bluff, Red Bluff to Chico Landing, Chico Landing to Colusa, Colusa to Verona, Verona to Sacramento)	ERP-97-N04	Feb-98	Feb-01	898,700	0	898,700	The Nature Conservancy	Meghan Mazzoni		Sacramento River Meander Restoration	Project will acquire 94.55 acres and restore 10 acres to riparian habitat. Ryan Luster, The Nature Conservancy. Implementation; 10 was restored to riparian habitat, 600 acres were reconnected to the Sacramento River Floodplain. Project completed.
59	SAC	EP			59C. Status of floodplain management plans, including feasibility studies to construct setback levees in one tributary of the North Sacramento Valley EMZ (Clear Creek, Cow Creek, Bear Creek, Battle Creek)	ERP-98-E15	Oct-98	May-01	23,828	0	23,828	Sacramento Watersheds Action Group	John McCullah		Sulphur Creek Coordinated Watershed Management Plan Group	Sulphur Creek CRMP will distribute the Watershed Analysis, develop community-based restoration objectives, pursue funding to implement projects identified in the Watershed Analysis, and enhance public awareness and education in fishers and watershed issues. May contribute to various habitat restoration, protection, and management milestones for the North Sacramento Valley (EMZ), Clear Creek (EMU). John McCullah, Sacramento Watersheds Action Group. Planning / Education. Project completed.
59	SAC	EP			59D. Status of floodplain management plans to restore and improve opportunities for rivers to inundate their floodplain on a seasonal basis in one tributary of the North Sacramento Valley EMZ (Clear Creek, Cow Creek, Bear Creek, Battle Creek)	ERP-95-M01				500,000	500,000	John (PGE) , Harry (DFG)	John Sandoffner, Harry Rectenwald	2 miles	Battle Creek Interim Flow Restoration	Floodplain mgmt. /Improve restore so that river inundates floodplain. Implementation; 50 percent complete. Ongoing due to amendments. Restore 2 miles of riparian habitat.

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59	SAC	EP			59D. Status of floodplain management plans to restore and improve opportunities for rivers to inundate their floodplain on a seasonal basis in n one tributary of the North Sacramento Valley EMZ (Clear Creek, Cow Creek, Bear Creek, Battle Creek)	ERP-98-E06	Jan-98	Dec-99	145,000	0	145,000	Battle Creek Watershed Conservancy	Donald Holtgrieve		Battle Creek Watershed Stewardship	This project will evaluate and develop a watershed plan for Battle Creek. Contributes to the process of restoration, protection, and management of riparian and floodplain habitat in the North Sacramento Valley (EMZ). Education / Instruction; project completed. Harry Rectenwald, DFG
59	SAC	EP			59D. Status of floodplain management plans to restore and improve opportunities for rivers to inundate their floodplain on a seasonal basis in n one tributary of the North Sacramento Valley EMZ (Clear Creek, Cow Creek, Bear Creek, Battle Creek)	AFRP-01-10	Jun-05	Sep-02	299,606	75,000	224,606	Battle Creek Watershed Conservancy (BCWC)	Sharon Paquin-Gilmore, Watershed Coordinator		Battle Creek Watershed Stewardship, Phase 2	BCWC proposes a project to do all of the following: 1) Complete an assessment of watershed conditions in the upper watershed and in the lands lying immediately upland of Battle Creek's Restoration Project reaches. 2) Implement, in close cooperation with the resource agencies and local schools, a watershed information system to support Restoration Project monitoring, assessment, and adaptive management. 3) Sustain implementation of the Battle Creek Watershed Strategy, through work in the schools and communities, with agencies and landowners, toward the complementary objectives of safeguarding the Battle Creek watershed's lightly- populated, agricultural lifestyle and protecting the public investment in the Battle Creek Salmon and Steelhead Restoration Project. Harry Rectenwald, DFG. Planning / Implementation; 50 percent complete. Project is ongoing. Watershed strategy is complete. Conservation easement planning is complete. Implement an information system for watershed.
59	SAC	EP			59E. Status of floodplain management plans, including feasibility studies to construct setback levees in one tributary of the Cottonwood Creek EMZ (Upper Cottonwood Creek , Lower Cottonwood Creek)	ERP-97-N07	Jul-98	Nov-02	61,000	10,000	71,000	Graham Matthews and Associates	Graham Matthews		Cottonwood Creek Channel Restoration Planning	May contribute to milestone since the creek will have channel work. Patricia Bratcher, DFG. Conduct geomorphic analysis, hydrologic analysis and survey sites. Planning/ Implementation; project completed.
59	SAC	EP			59E. Status of floodplain management plans, including feasibility studies to construct setback levees in one tributary of the Cottonwood Creek EMZ (Upper Cottonwood Creek , Lower Cottonwood Creek)	ERP-98-E05	Oct-98	Dec-01	161,000	0	161,000	Cottonwood Creek Watershed Group	Vieva Swearingen		Cottonwood Creek Watershed Group Formation	This project will: 1) Identify and organize the landowners to work with public land management agencies, interested parties and resource managers to form consensus on issues and their importance; 2) Coordinate with resources managers which have studied regional needs and correlate those studies with input from stakeholders; 3) Research previous studies within the Cottonwood Creek watershed. Contributes to the process of restoration, protection, and management of riparian and floodplain habitat in the Cottonwood Creek (EMZ). Patricia Bratcher, DFG. Implement watershed stewardship plan for Cottonwood Creek. Implementation; project completed.
59	SAC	EP			59E. Status of floodplain management plans, including feasibility studies to construct setback levees in one tributary of the Cottonwood Creek EMZ (Upper Cottonwood Creek , Lower Cottonwood Creek)	ERP-00-E03	Oct-00	Dec-05	443,047	0	443,047	Cottonwood Creek Watershed Group	Vieva Swearingen		Cottonwood Creek Watershed Monitoring and Assessment	Continued management of the Cottonwood Creek Watershed Group (CCWG) to oversee the implementation of a watershed plan. This phase would assess current conditions in the watershed (930 sq miles), both as to the land and stream conditions to give a baseline for future projects. Patricia Bratcher, DFG. Monitoring and Assessment; project completed.
59	SAC	EP			59F. Status of floodplain management plans to restore and improve opportunities for rivers to inundate their floodplain on a seasonal basis in one tributary of the Cottonwood Creek EMZ (Upper Cottonwood Creek ,	ERP-97-N07	Jul-98	Nov-04	61,000	10,000	71,000	Graham Matthews and Associates	Graham Matthews		Cottonwood Creek Channel Restoration Planning	May contribute to milestone since the creek will have channel work. Patricia Bratcher, DFG. Conduct geomorphic analysis, hydrologic analysis and survey sites. Planning/ Implementation; project completed.

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							START DATE	END DATE								
59	SAC	EP			59F. Status of floodplain management plans to restore and improve opportunities for rivers to inundate their floodplain on a seasonal basis in one tributary of the Cottonwood Creek EMZ (Upper Cottonwood Creek , Lower Cottonwood Creek)	ERP-98-E05	Oct-98	Dec-04	161,000	0	161,000	Cottonwood Creek Watershed Group	Viewa Swearingen		Cottonwood Creek Watershed Group Formation	This project will: 1) Identify and organize the landowners to work with public land management agencies, interested parties and resource managers to form consensus on issues and their importance; 2) Coordinate with resources managers which have studied regional needs and correlate those studies with input from stakeholders; 3) Research previous studies within the Cottonwood Creek watershed. Contributes to the process of restoration, protection, and management of riparian and floodplain habitat in the Cottonwood Creek (EMZ). Patricia Bratcher, DFG. Implement watershed stewardship plan for Cottonwood Creek. Implementation; project completed.
59	SAC	EP			59F. Status of floodplain management plans to restore and improve opportunities for rivers to inundate their floodplain on a seasonal basis in one tributary of the Cottonwood Creek EMZ (Upper Cottonwood Creek , Lower Cottonwood Creek)	ERP-00-E03	Oct-00	Dec-04	443,047	0	443,047	Cottonwood Creek Watershed Group	Viewa Swearingen		Cottonwood Creek Watershed Monitoring and Assessment	Continued management of the Cottonwood Creek Watershed Group (CCWG) to oversee the implementation of a watershed plan. This phase would assess current conditions in the watershed (930 sq miles), both as to the land and stream conditions to give a baseline for future projects. Patricia Bratcher, DFG. Monitoring and Assessment; project completed.
59	SAC	EP			59G. Status of floodplain management plans, including feasibility studies to construct setback levees in one tributary of the Colusa Basin EMZ (Stoney Creek, Elder Creek, Thomes Creek, Colusa Basin)	ERP-99-N14	Jun-01	May-04	492,500	191,000	683,500	Colusa Resource Conservation District	Christopher Rose		Colusa Basin Watershed Project	Contributes to monitoring and restoration efforts along the Colusa Basin (600,000 acres). The Colusa Basin Drain Watershed project will serve as a project that assists private landowners in addressing non-pint source pollution, flood control issues, exotic invasive weeds, and reactivating important ecological processes and functions of riparian corridors. The project will consist of 6 to 12 selected sites, which will implement riparian enhancement and other restoration practices. Patti A. Turner, Colusa County Resource Conservation District. Implementation; 75 percent complete. Six sites are done. Monitoring and restoration of 600,000 acres.
59	SAC	EP			59H. Status of floodplain management plans to restore and improve opportunities for rivers to inundate their floodplain on a seasonal basis in one tributary of the Colusa Basin EMZ (Stoney Creek, Elder Creek, Thomes Creek, Colusa Basin)	ERP-99-N14	Jun-01	May-04	492,500	191,000	683,500	Colusa Resource Conservation District	Christopher Rose		Colusa Basin Watershed Project	Contributes to monitoring and restoration efforts along the Colusa Basin (600,000 acres). The Colusa Basin Drain Watershed project will serve as a project that assists private landowners in addressing non-point source pollution, flood control issues, exotic invasive weeds, and reactivating important ecological processes and functions of riparian corridors. The project will consist of 6 to 12 selected sites, which will implement riparian enhancement and other restoration practices. Patti A. Turner, Colusa County Resource Conservation District. Implementation; 75 percent complete. Six sites are done. Monitoring and restoration of 600,000 acres.
59	SAC	EP			59I. Status of floodplain management plans, including feasibility studies to construct setback levees in one tributary of the Butte Basin EMZ (Paynes Creek, Antelope Creek, Mill Creek, Deer Creek, Big Chico Creek, Butte Creek, Butte Sink)	ERP-97-E01	Mar-98	Jun-99	422,830	0	422,830	Big Chico Creek Watershed Alliance	Joe Karkoski		Watershed Plan, Big Chico Creek	This project will evaluate and develop a watershed plan for Big Chico Creek. Tasks include assessment of existing conditions, modeling of flow and sediment transport, identification of issues and conflicts, and the development of a watershed management strategy. Contributes to the process of restoration, protection, and management of riparian and floodplain habitat in the Butte Basin (EMZ). Paul Ward, DFG. Planning; project completed. AFRP and DWR funded the design of the fish ladders.

MS Number	REGION	Project Type	Milestone	ERP Targets taken from ERPP Vol 2	MS Components or Questions for field personnel	ERP PROJECT NUMBERS	CONTRACT		CALFED Award	Cost Share	Total Project Cost	Applicant	Principal Investigator	Quantifiable Units	Project Name	Comments
							START DATE	END DATE								
59	SAC	EP			59I. Status of floodplain management plans, including feasibility studies to construct setback levees in one tributary of the Butte Basin EMZ (Paynes Creek, Antelope Creek, Mill Creek, Deer Creek, Big Chico Creek, Butte Creek, Butte Sink)	ERP-97-E02	Jan-98	Dec-99	199,554	0	199,554	California State University, Chico	Donald Holtgrieve		Deer Creek Watershed Management/Implementation Program	This project will evaluate and develop a watershed plan for Deer Creek. Tasks include assessment of existing conditions, modeling of flow and sediment transport, identification of issues and conflicts, and the development of a watershed management strategy. Contributes to the process of restoration, protection, and management of riparian and floodplain habitat in the Butte Basin (EMZ). Patricia Bratcher, DFG. Implement water management strategy and water quality program. Implementation; project completed.
59	SAC	EP			59I. Status of floodplain management plans, including feasibility studies to construct setback levees in one tributary of the Butte Basin EMZ (Paynes Creek, Antelope Creek, Mill Creek, Deer Creek, Big Chico Creek, Butte Creek, Butte Sink)	ERP-98-F01	Sep-98	Dec-01	302,745	0	302,745	CSU Chico	Donald Holtgrieve		The Butte Creek Watershed Educational Workshops and Field Tours Series	Contributes to restoration efforts along Butte Creek. The project tasks: 1) Hire the Butte Creek Watershed Coordinator Assistant; 2) Develop the Butte Creek Watershed Education Project; 3) Conduct Butte Creek Watershed Road Survey (identifying sediment problems); 4) Implement the Riparian Education and Geomorphology Analysis of Butte Creek. Paul Ward, DFG. Conduct a road survey that monitors: erosion and sedimentation. Train field personnel and maintain data base. Implementation; project completed.
59	SAC	EP			59J. Status of floodplain management plans to restore and improve opportunities for rivers to inundate their floodplain on a seasonal basis in one tributary of the Butte Basin EMZ (Paynes Creek, Antelope Creek, Mill Creek, Deer Creek, Big Chico Creek, Butte Creek, Butte Sink)	ERP-98-F01	Sep-98	Dec-01	302,745	0	302,745	CSU Chico	Donald Holtgrieve		The Butte Creek Watershed Educational Workshops and Field Tours Series	Contributes to restoration efforts along Butte Creek. The project tasks: 1) Hire the Butte Creek Watershed Coordinator Assistant; 2) Develop the Butte Creek Watershed Education Project; 3) Conduct Butte Creek Watershed Road Survey (identifying sediment problems); 4) Implement the Riparian Education and Geomorphology Analysis of Butte Creek. Paul Ward, DFG. Conduct a road survey that monitors: erosion and sedimentation. Train field personnel and maintain data base. Implementation; project completed.
59	SAC	EP			59J. Status of floodplain management plans to restore and improve opportunities for rivers to inundate their floodplain on a seasonal basis in one tributary of the Butte Basin EMZ (Paynes Creek, Antelope Creek, Mill Creek, Deer Creek, Big Chico Creek, Butte Creek, Butte Sink)	ERP-97-E02	Jan-98	Dec-99	199,554	0	199,554	California State University, Chico	Donald Holtgrieve		Deer Creek Watershed Management/Implementation Program	This project will evaluate and develop a watershed plan for Deer Creek. Tasks include assessment of existing conditions, modeling of flow and sediment transport, identification of issues and conflicts, and the development of a watershed management strategy. Contributes to the process of restoration, protection, and management of riparian and floodplain habitat in the Butte Basin (EMZ). Patricia Bratcher, DFG. Implement water management strategy and water quality program. Implementation; project completed.
59	SAC	EP			59J. Status of floodplain management plans to restore and improve opportunities for rivers to inundate their floodplain on a seasonal basis in one tributary of the Butte Basin EMZ (Paynes Creek, Antelope Creek, Mill Creek, Deer Creek, Big Chico Creek, Butte Creek, Butte Sink)	AFRP-00-15						AFRP	John Icanberry USFWS		Acquire the Nock property on Big Chico Creek	The Nock property is 125.2 acres located at the confluence of Mud and Big Chico Creeks near the Sacramento River in Butte County, Ca. The protection and restoration of the Nock property will help create more complex and continuous shoreline vegetation, increase available woody debris, and broaden the riparian buffer providing improved refugia for juvenile fish. The anticipated long term ecological benefits of the proposed project are to help protect and facilitate enhancement of the meanderbelt and associated floodplain of the Sacramento River. Objective: Conduct baseline biological and environmental surveys, implement interim restoration and start up stewardship actions and develop a long term restoration and management plan prior to acquisition by The Nature Conservancy. Status: Likely for funding in FY2000.

MS Number	REGION	Project Type	Milestone	ERP Targets taken from ERPP Vol 2	MS Components or Questions for field personnel	ERP PROJECT NUMBERS	CONTRACT		CALFED Award	Cost Share	Total Project Cost	Applicant	Principal Investigator	Quantifiable Units	Project Name	Comments
							START DATE	END DATE								
59	SAC	EP			59J. Status of floodplain management plans to restore and improve opportunities for rivers to inundate their floodplain on a seasonal basis in one tributary of the Butte Basin EMZ (Paynes Creek, Antelope Creek, Mill Creek, Deer Creek, Big Chico Creek, Butte Creek, Butte Sink)	AFRP-00-16			50,000	250,000	300,000	AFRP	John Icanberry USFWS		Acquire the Singh property of Big Chico Creek	The Singh property is 40.4 acres located west of Mud Creek, north of the Bidwell-Sacramento River State Park and adjacent to the Sacramento River in Butte County, Ca. Objective: Conduct baseline biological and environmental surveys, implement interim restoration and start up stewardship actions and develop a long term restoration and management plan prior to acquisition by The Nature Conservancy. Contract was signed 8/2000 between FWS (AFRP) and The Nature Conservancy. TNC staff, Ayres Associates and CSU Chico personnel under contract to TNC are proceeding with data collection, a baseline assessment, and hydraulic modeling of the general area of the Singh, Mendonca, and Nicolas tracts between Mud Creek and the Sacramento River, and the Nock tract between Mud Creek and Big Chico Creek. These studies are taking place and will be evaluated within the larger context of the Chico Landing Sub-Reach Study that TNC is conducting as a portion of its obligations under CalFed Grant # 97-NO2.
59	SAC	EP			59J. Status of floodplain management plans to restore and improve opportunities for rivers to inundate their floodplain on a seasonal basis in one tributary of the Butte Basin EMZ (Paynes Creek, Antelope Creek, Mill Creek, Deer Creek, Big Chico Creek, Butte Creek, Butte Sink)	ERP-97-E01	Mar-98	Jun-99	422,830	0	422,830	Big Chico Creek Watershed Alliance	Joe Karkoski		Watershed Plan, Big Chico Creek	This project will evaluate and develop a watershed plan for Big Chico Creek. Tasks include assessment of existing conditions, modeling of flow and sediment transport, identification of issues and conflicts, and the development of a watershed management strategy. Contributes to the process of restoration, protection, and management of riparian and floodplain habitat in the Butte Basin (EMZ). Paul Ward, DFG. Planning; project completed. AFRP and DWR funded the design of the fish ladders.
59	SAC	EP			59J. Status of floodplain management plans to restore and improve opportunities for rivers to inundate their floodplain on a seasonal basis in one tributary of the Butte Basin EMZ (Paynes Creek, Antelope Creek, Mill Creek, Deer Creek, Big Chico Creek, Butte Creek, Butte Sink)	ERP-02-P16-D			2,603,377		2,603,377	The Nature Conservancy	Sam Lawson		Restoration of the Confluence Are of the Sacramento River, Big Chico and Mud Creeks	Protect and restore 311 acres of flood-prone, land located within the Sacramento River Conservation Area at the confluence of the Sacramento River, Big Chico and Mud Creeks at river miles 194-195. Cathy Morris, The Nature Conservancy. Acquisition; just beginning.
59	SAC	EP			59K. Status of floodplain management plans, including feasibility studies to construct setback levees in one tributary of the Feather River/Sutter Basin (Feather River, Yuba River, Bear River, Honcut Creek, Sutter Bypass)											
59	SAC	EP			59L. Status of floodplain management plans to restore and improve opportunities for rivers to inundate their floodplain on a seasonal basis in one tributary of the Feather River/Sutter Basin (Feather River, Yuba River, Bear River, Honcut Creek, Sutter Bypass)	ERP-01-N62	Dec-01	Aug-04	193,650	0	193,650	South Yuba River Citizens League	Janet Cohen		Yuba Feather Work Group	Floodplain restoration and improvement. Ian Drury, DFG. Planning; 30 percent complete. Yuba County Water Agency funded the Yuba River Salmon Carcass Survey. YWCA, PGE, and Tracy Mitigation funded Browns Valley Fish Screens. DFG funded Spring Run Salmon Counts/Passage @Dagerre Dam

MS Number	REGION	Project Type	Milestone	ERP Targets taken from ERPP Vol 2	MS Components or Questions for field personnel	ERP PROJECT NUMBERS	CONTRACT		CALFED Award	Cost Share	Total Project Cost	Applicant	Principal Investigator	Quantifiable Units	Project Name	Comments
							START DATE	END DATE								
59	SAC	EP			59M. Status of floodplain management plans, including feasibility studies to construct setback levees in one tributary of the American River Basin (American Basin, Lower American River)											
59	SAC	EP			59N. Status of floodplain management plans to restore and improve opportunities for rivers to inundate their floodplain on a seasonal basis in one tributary of the American River Basin (American Basin, Lower American River)	ERP-97-N05	Mar-99	Jun-00	222,530	0	222,530	Placer County Planning Department	Loren Clark		Auburn Ravine/Coon Creek Restoration Planning	Develop a plan with major emphasis on protection and restoration of riparian and aquatic habitats. John Nelson, Department of Fish and Game. Planning; project completed.

MULTI SPECIES CONSERVATION STRATEGY MILESTONE 60 -- ROLLED UP SUMMARY

<p>MILESTONE 60 -- Protect 15,000 acres within the Inner River Zone areas between Red Bluff and Colusa reaches within identified the Sacramento River Conservation Area. Establish between 3 and 5 habitat preserves for bank swallows along the upper reaches of the Sacramento River capable of supporting 5000 bank swallow burrows between the towns of Colusa and Red Bluff.</p>		<p>PROJECTS REVIEWED - ERP-96-M16, ERP-97-C03, ERP-97-N02, ERP-97-N04, ERP-98-F18, ERP-99-B12, ERP-00-F03, ERP-01-N28, ERP-02-C05-D, ERP-02D-P53, ERP-02-P16-D, ERP-02-P27</p>	<p>SUMMARY -- Many projects have provided planning and design phase reports, funded acquisition, supported permitting, and restoration along the Sacramento River from Red Bluff and Colusa sub-reaches and have or will provide over 5800 acres of restored riparian habitat and nearly 40 river miles of bank that could be suitable bank swallow habitat or could be allowed to erode and develop into suitable bank swallow habitat because of setback levees. These 20 miles of bank, suitable for bank swallows, should provide the basis for up to 5 bank swallow preserves and may provide for the target of 5000 bank swallow burrows.</p>		<p>AGENCY NOTES --</p>	<p>NOTES CONT'D --</p>
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MULTI SPECIES CONSERVATION STRATEGY MILESTONE 60 -- EVALUATION OF INDIVIDUAL PROJECTS REVIEWED TO FORMULATE THE ROLLED UP SUMMARY

MS Number	REGION	Project Type	Milestone	ERP Targets taken from ERPP Vol 2	MS Components or Questions for field personnel	ERP PROJECT NUMBERS	CONTRACT		CALFED Award	Cost Share	Total Project Cost	Applicant	Principal Investigator	Quantifiable Units	Project Name	Comments
							START DATE	END DATE								
60	SAC	EP	Protect 15,000 acres within the Inner River Zone areas between Red Bluff and Colusa reaches within identified the Sacramento River Conservation Area. Establish between 3 and 5 habitat preserves for bank swallows along the upper reaches of the Sacramento River capable of supporting 5000 bank swallow		60 A. Status of the protection of 15,000 acres within the Inner River Zone areas between Red Bluff and Colusa reaches within identified the Sacramento River Conservation Area.	ERP-96-M16	Aug-97	Sep-98	1,450,200	0	1,450,200	California State University, Chico	Charles W. Nelson		Sacramento River & Major Tributaries Riparian Corridor Mapping Project	Mapping of riparian vegetation along rivers and streams in the Sacramento Valley portions of Glenn, Sutter, Colusa, Yuba, Yolo, and Sacramento Counties. Contributes to the proconservation easements of restoring the Sacramento River Basin (EMZ), protecting Inner River Zone areas between Red Bluff and Colusa reaches within identified the Sacramento River Conservation, restoration and protection of riparian habitat in the Sacramento River Basin (EMZ). Mapped riparian vegetation, open water, gravel bars, disturbed riparian, and invasive (Arundo, Tamarix, Rubus discolor) throughout the Sacramento River and major tributaries. Monitoring; project completed.
60	SAC	EP			60 A. Status of the protection of 15,000 acres within the Inner River Zone areas between Red Bluff and Colusa reaches within identified the Sacramento River Conservation Area.	ERP-97-C03	Jul-98	Dec-00	200,000	0	200,000	CDWR	Stacy Cepello		Upper Sacramento River Restoration Planning	This project will provide for a restoration coordinator to guide the formalization of non-profit management entity and related restoration planning of the Upper Sacramento River Watershed. Tasks include hiring a coordinator, setting up organizational structure, oversight and agreements, developing and implementing public outreach, and developing a plan for Woodson Bridge and one other sub-reach. Contributes to the process of restoring the Sacramento River Basin (EMZ), protecting Inner River Zone areas between Red Bluff and Colusa reaches within identified the Sacramento River Conservation, restoration and protection of riparian habitat in the Sacramento River Basin (EMZ). Planning; project completed. The project setup a non-profit management entity and for restoration planning of the Upper Sacramento River Watershed. The Army Corps of Engineers have taken over the planning and implementation for the Woodson Bridge restoration efforts.
60	SAC	EP			60 A. Status of the protection of 15,000 acres within the Inner River Zone areas between Red Bluff and Colusa reaches within identified the Sacramento River Conservation Area.	ERP-97-N04	Feb-98	Feb-01	898,700	0	898,700	The Nature Conservancy	Meghan Mazzoni		Sacramento River Meander Restoration	Project will acquire 94.55 acres and restore 10 acres to riparian habitat. Ryan Luster, The Nature Conservancy. Implementation; 10 was restored to riparian habitat, 600 acres were reconnected to the Sacramento River Floodplain. Project completed.

MS Number	REGION	Project Type	Milestone	ERP Targets taken from ERPP Vol 2	MS Components or Questions for field personnel	ERP PROJECT NUMBERS	CONTRACT		CALFED Award	Cost Share	Total Project Cost	Applicant	Principal Investigator	Quantifiable Units	Project Name	Comments
							START DATE	END DATE								
60	SAC	EP			60 A. Status of the protection of 15,000 acres within the Inner River Zone areas between Red Bluff and Colusa reaches within identified the Sacramento River Conservation Area.	ERP-99-B12	Mar-00	Apr-03	2,175,000	0	2,175,000	BLM	Charles Schultz		Riparian Corridor Acquisition and Restoration Assessment	Project will establish a conservation easement acquisition on the Gover Ranch, and conduct geomorphic studies of a reach on the Sacramento River. Some of the land will be covered by an agricultural easement. 1412 acres. Harry Rectenwald, DFG. Implementation; project completed. Acquired a conservation easement of 1412 acres and protected 10 miles of riparian habitat on Battle Creek.
60	SAC	EP			60 A. Status of the protection of 15,000 acres within the Inner River Zone areas between Red Bluff and Colusa reaches within identified the Sacramento River Conservation Area.	ERP-00-F03	Jun-00	May-03	519,000	0	519,000	The Nature Conservancy	Sam Lawson		Floodplain Acquisition and Sub-Reach/Site-Specific Management Planning on the Sacramento River (Red Bluff to Colusa)	This contract provides for the planning component of this project. Site specific management planning will be conducted on the Beehive Bend subreach (RM 165-176). This contract will support progress towards the project goals for implementation of a limited meander corridor. Modeling will be used to evaluate the interactions of land use changes with flood control infrastructure, and strategies for maximizing aquatic habitat diversity in the sub-reach.. Task 1: Survey, model, and evaluate potential changes in hydrology and geomorphology. Task 4: Identify future conservation and management actions for the Beehive Bend sub-reach. Mike Roberts, The Nature Conservancy. Planning; project completed.
60	SAC	EP			60 A. Status of the protection of 15,000 acres within the Inner River Zone areas between Red Bluff and Colusa reaches within identified the Sacramento River Conservation Area.	ERP-02-C05-D	Nov-02	Oct-04	495,000	345,000	840,000	The Reclamation Board	Pete Rabbon		Hamilton City Ecosystem Restoration and Flood Damage Reduction: Chico Landing Sub-Reach	Will protect 2,600 acres within the Sacramento River Conservation Area which provide habitat for Bank Swallows. Burt Bundy, Sacramento River Conservation Area Forum. Planning for 6.8 miles of setback levees (MS 59A), 1,500 acres increase in floodplain (MS 59B), restore 1,000 acres of riparian habitat (MS 62G), properties located within the Inner River Zone areas between Red Bluff and Colusa reaches stretch may be habitat for Bank Swallow will be protected (MS 60A&B). Draft plan is complete. Currently seeking public comment.
60	SAC	EP			60 A. Status of the protection of 15,000 acres within the Inner River Zone areas between Red Bluff and Colusa reaches within identified the Sacramento River Conservation Area.	ERP-02D-P53	Sep-03	Sep-05	1,519,200	0	1,519,200	Deer Creek Watershed Conservancy	Bill Berens		Lower Deer Creek Restoration and Flood Management: Feasibility Study and Conceptual Design	Will protect unspecified amount of acres within the Sacramento River Conservation Area. Viewa Swearingen, Deer Creek Watershed Conservancy. Planning and Design; project just started. (7 percent complete).
60	SAC	EP			60 A. Status of the protection of 15,000 acres within the Inner River Zone areas between Red Bluff and Colusa reaches within identified the Sacramento River Conservation Area.	ERP-98-F18	Mar-99	Sep-01	1,000,000	0	1,000,000	The Nature Conservancy	Sam Lawson		Floodplain Acquisition, Management, and Monitoring of the Sacramento River	Project will identify willing sellers on floodplain lands within the Sacramento River Conservation Area between Keswick and Verona. Planning to restore all 288 acres to riparian floodplain habitat. Cathy Morris, The Nature Conservancy. Project completed, Acquisition/Planning. 181 acres protected is in the Inner River Zone.
60	SAC	EP			60 A. Status of the protection of 15,000 acres within the Inner River Zone areas between Red Bluff and Colusa reaches within identified the Sacramento River Conservation Area.	ERP-97-N02	Feb-98	Feb-04	9,879,800	5,257,000	15,136,800	TNC, USFWS, Wildlife Conservation Board	John Carlon, Gary Kramer, Scott Clemons		Sacramento River Floodplain Acquisition and Riparian Restoration	This project will acquire 1,500 acres in conservation easement or fee title that will include SRA, instream aquatic, riparian and riverine aquatic and compatibly managed agricultural lands. Acquired 1,084 acres for riparian restoration. Cathy Morris, The Nature Conservancy. Project completed, Acquisition
60	SAC	EP			60 A. Status of the protection of 15,000 acres within the Inner River Zone areas between Red Bluff and Colusa reaches within identified the Sacramento River Conservation Area.	ERP-02-P16-D			2,603,377		2,603,377	The Nature Conservancy	Sam Lawson		Restoration of the Confluence Are of the Sacramento River, Big Chico and Mud Creeks	Protect and restore 311 acres of flood-prone, land located within the Sacramento River Conservation Area at the confluence of the Sacramento River, Big Chico and Mud Creeks at river miles 194-195. Cathy Morris, The Nature Conservancy. Acquisition

MS Number	REGION	Project Type	Milestone	ERP Targets taken from ERPP Vol 2	MS Components or Questions for field personnel	ERP PROJECT NUMBERS	CONTRACT		CALFED Award	Cost Share	Total Project Cost	Applicant	Principal Investigator	Quantifiable Units	Project Name	Comments
							START DATE	END DATE								
60	SAC	EP			60 A. Status of the protection of 15,000 acres within the Inner River Zone areas between Red Bluff and Colusa reaches within identified the Sacramento River Conservation Area.	ERP-02-P27			1,488,009	0	1,488,009	The Nature Conservancy	Greg Golet		Sub-reach Planning for the Sacramento River: River Mile 144-164	Restore and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along the Chico Landing to Colusa reach of the Sacramento River EMZ. Unspecified amount will be restored, all will be maintained. Project is in the planning phase. <i>Cathy Morris, The Nature Conservancy. Planning; project less than 1% completed. The project has just started.</i>
60	SAC	EP			60 A. Status of the protection of 15,000 acres within the Inner River Zone areas between Red Bluff and Colusa reaches within identified the Sacramento River Conservation Area.	ERP-01-N28	Oct-01	Oct-04	541,747	0	541,747	CDWR	Burt Bundy		Sacramento River Conservation Area Program	The project involves hiring a manager and office staff for a three-year period to assist in the development and implementation of site-specific plans for areas with in the Sacramento River Riparian Conservation Area, and to manage a new nonprofit riparian land management entity that will coordinate activities and continue the process of building broader support and understanding of the goals of the SB 1086 program. <i>Burt Bundy, Sacramento River Conservation Area Forum. Planning; project completed. The project provided funding to continue the efforts of the Sacramento River Conservation Area Program to act as a coordinating body between local, state, and federal agencies regarding restoration activities in the Sacramento River watershed.</i>
60	SAC	EP			60 B. Status of the establishment of between 3 and 5 habitat preserves for bank swallows along the upper reaches of the Sacramento River capable of supporting 5000 bank swallow burrows between the towns of Colusa and Red Bluff.	ERP-02-C05-D	Nov-02	Oct-04	495,000	345,000	840,000	The Reclamation Board	Pete Rabbon		Hamilton City Ecosystem Restoration and Flood Damage Reduction: Chico Landing Sub-Reach	Will protect 2,600 acres within the Sacramento River Conservation Area which provide habitat for Bank Swallows. <i>Burt Bundy, Sacramento River Conservation Area Forum. Planning for 6.8 miles of setback levees (MS 59A), 1,500 acres increase in floodplain (MS 59B), restore 1,000 acres of riparian habitat (MS 62G), properties located within the Inner River Zone areas between Red Bluff and Colusa reaches stretch may be habitat for Bank Swallow will be protected (MS 60A&B). Draft plan is complete. Currently seeking public comment.</i>

MULTI SPECIES CONSERVATION STRATEGY MILESTONE 61 -- ROLLED UP SUMMARY

<p>MILESTONE 61 -- In the American River Basin, Butte Basin, Colusa Basin, Feather River/Sutter Basin EMZs, cooperatively enhance at least 15 to 25% of the ERP target for wildlife friendly agricultural practices.</p>		<p>PROJECTS REVIEWED - ERP-97-E01, ERP-97-E02, ERP-98-F01, ERP-99-B27, ERP-01-N28, ERP-02-P26</p>		<p>SUMMARY -- Several projects, notably the Sacramento River Conservation Forum Program provide for increased public awareness of the positive relationship between wildlife and fish conservation and agriculture, but no single program wide approach is apparent. Side benefits to agriculture are increased water reliability due to screening and fish passage improvements with concomitant benefits to the resource. In the American River Basin, Butte Basin, Colusa Basin, Feather River/Sutter Basin EMZs, a very small unquantified percentage of the ERP target for wildlife friendly agricultural practices have been cooperatively enhanced.</p>		<p>AGENCY NOTES --</p>	<p>NOTES CONT'D --</p>
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MULTI SPECIES CONSERVATION STRATEGY MILESTONE 61 -- EVALUATION OF INDIVIDUAL PROJECTS REVIEWED TO FORMULATE THE ROLLED UP SUMMARY

MS Number	REGION	Project Type	Milestone	ERP Targets taken from ERPP Vol 2	MS Components or Questions for field personnel	ERP PROJECT NUMBERS	CONTRACT		CALFED Award	Cost Share	Total Project Cost	Applicant	Principal Investigator	Quantifiable Units	Project Name	Comments
							START DATE	END DATE								
61	SAC	H	In the American River Basin, Butte Basin, Colusa Basin, Feather River/Sutter Basin EMZs, cooperatively enhance at least 15 to 25% of the ERP target for wildlife friendly agricultural practices.	American River Basin: Enhance 20,948 acres of private agricultural land to better support nesting and wintering waterfowl consistent with the objectives of Central Valley Habitat Joint Venture and the North American Waterfowl Management Plan	61 A. Status of enhancing wildlife friendly agricultural practices program in the American River Basin											
61	SAC	H		Butte Basin: Cooperatively manage 108,832 acres	61 B. Status of enhancing wildlife friendly agricultural practices program in the Butte Basin	ERP-97-E01	Mar-98	Jun-99	422,830	0	422,830	Big Chico Creek Watershed Alliance	Joe Karkoski		Watershed Plan, Big Chico Creek	This project will evaluate and develop a watershed plan for Big Chico Creek. Tasks include assessment of existing conditions, modeling of flow and sediment transport, identification of issues and conflicts, and the development of a watershed management strategy. Contributes to restoration, protection, and management of riparian and floodplain habitat in the Butte Basin (EMZ). Paul Ward, DFG. Planning; project completed. AFRP and DWR funded the design of the fish ladders.
61	SAC	H			61 B. Status of enhancing wildlife friendly agricultural practices program in the Butte Basin	ERP-97-E02	Jan-98	Dec-99	199,554	0	199,554	California State University, Chico	Donald Holtgrieve		Deer Creek Watershed Management/Implementation Program	This project will evaluate and develop a watershed plan for Deer Creek. Tasks include assessment of existing conditions, modeling of flow and sediment transport, identification of issues and conflicts, and the development of a watershed management strategy. Contributes to the restoration, protection, and management of riparian and floodplain habitat in the Butte Basin (EMZ). Patricia Bratcher, DFG. Implement water management strategy and water quality program. Implementation; project completed.

MS Number	REGION	Project Type	Milestone	ERP Targets taken from ERPP Vol 2	MS Components or Questions for field personnel	ERP PROJECT NUMBERS	CONTRACT		CALFED Award	Cost Share	Total Project Cost	Applicant	Principal Investigator	Quantifiable Units	Project Name	Comments
							START DATE	END DATE								
61	SAC	H			61 B. Status of enhancing wildlife friendly agricultural practices program in the Butte Basin	ERP-98-F01	Sep-98	Dec-01	302,745	0	302,745	CSU Chico	Donald Holtgrieve		The Butte Creek Watershed Educational Workshops and Field Tours Series	Contributes to restoration efforts along Butte Creek. The project tasks: 1) Hire the Butte Creek Watershed Coordinator Assistant; 2) Develop the Butte Creek Watershed Education Project; 3) Conduct Butte Creek Watershed Road Survey (identifying sediment problems); 4) Implement the Riparian Education and Geomorphology Analysis of Butte Creek. Paul Ward, DFG. Conduct a road survey that monitors erosion and sedimentation. Train field personnel and maintain data base. Implementation; project completed.
61	SAC	H			61 B. Status of enhancing wildlife friendly agricultural practices program in the Butte Basin	ERP- 02-P26			4,700,000	0	4,700,000	The Nature Conservancy	Jake Jacobson		Mill and Deer Creeks Protection and Stewardship	Enhancing (protecting) wildlife friendly agricultural practices on Mill Creek and Deer Creek in the Butte Basin. 36,000 acres. Acquisition; project not complete, 1 property will close in June.
61	SAC	H		Colusa Basin: Cooperatively manage 111,285 acres of agricultural Land	61 C. Status of enhancing wildlife friendly agricultural practices program in the Colusa Basin	ERP-99-B27	Oct-99	Mar-03	13,000	7,686	20,686	Colusa County Resource Conservation District	Patti Ann Turner		Watershed Educational Training	Contributes to monitoring and restoration efforts along the Colusa Basin. The Watershed Educational Training (WET) project revolves around the use of EnviroScope interactive watershed models to teach the importance of how the public's actions can have both positive and adverse effects on the watershed ecosystem. Patti A. Turner, Colusa County Resource Conservation District. Educational; project completed. Colusa County Resource Conservation District funded an educational project on Best Management Practices for Non Point Source Pollution.
61	SAC	H		Feather River/Sutter Basin: Cooperatively manage 57,578 acres of agricultural lands consistent with the objectives of the Central Valley Habitat Joint Venture and the North American Waterfowl Management Plan	61 D. Status of enhancing wildlife friendly agricultural practices program in the Feather River/Sutter Basin	ERP-01-N28	Oct-01	Oct-04	541,747	0	541,747	CDWR	Burt Bundy		Sacramento River Conservation Area Program	The project involves hiring a manager and office staff for a three-year period to assist in the development and implementation of site-specific plans for areas with in the Sacramento River Riparian Conservation Area, and to manage a new nonprofit riparian land management entity that will coordinate activities and continue building broader support and understanding of the goals of the SB 1086 program. Burt Bundy, Sacramento River Conservation Area Forum. Planning; project completed. The project provided funding to continue the efforts of the Sacramento River Conservation Area Program to act as a coordinating body between local, state, and federal agencies regarding restoration activities in the Sacramento River watershed.

MULTI SPECIES CONSERVATION STRATEGY MILESTONE 62 -- ROLLED UP SUMMARY

<p>MILESTONE 62 -- Develop and implement a program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within each of the following Ecological Management Zones: American River Basin, Butte Basin, Colusa Basin, Cottonwood Creek, Feather River/Sutter Basin, North Sacramento Valley, Sacramento River, and Yolo Basin. While restoring habitat conditions in the American River EMZ, maintain continuous corridors of suitable riparian habitat for valley elderberry longhorn beetle.</p> <p>Protect existing known occurrences of northern California black walnut native stands through conservation easement or purchase.</p> <p>Identify at least 3 protected and managed sites for introduction of additional populations of northern California black walnut; begin introduction and monitor for success. Population creation should be part of a broader effort to restore riparian areas which historically contained walnut.</p>	<p>PROJECTS REVIEWED - ERP-95-M01, ERP-96-M03, ERP-96-M12, ERP-96-M16, ERP-96-M24, ERP-96-M25, ERP-97-C03, ERP-97-E01, ERP-97-E02, ERP-97-N02, ERP-97-N03A, ERP-97-N03B, ERP-97-N04, ERP-97-N05, ERP-97-N06, ERP-97-N07, ERP-98-C18, ERP-98-E05, ERP-98-E06, ERP-98-E13, ERP-98-E15, ERP-98-E16, ERP-98-F01, ERP-98-F03, ERP-98-F15, ERP-98-F18, ERP-98-F20, ERP-98-F24, ERP-99-B01, ERP-99-B09, ERP-99-B12, ERP-99-B27, ERP-99-N04, ERP-99-N14, ERP-99-N16, ERP-99-N17, ERP-99-N21, ERP-00-E03, ERP-00-F11, ERP-01-N04, ERP-01-N24, ERP-01-N25, ERP-01-N26, ERP-01-N28, ERP-01-N31, ERP-01-N62, ERP-02-C01-D, ERP-02-C05-D, ERP-02-P16-D, ERP-02D-P53, ERP-02-P26, ERP-02-P27, ERP-02-P39, IMM-02-I01, WSP-01-FP-0128, WSP-02-FP-556, AFRP-00-01, AFRP-00-02, AFRP-00-10, AFRP-00-11, AFRP-00-13, AFRP-00-14, AFRP-00-15, AFRP-00-16, AFRP-00-17, AFRP-01-10,</p>	<p>SUMMARY -- A significant number of ERP and AFRP contracts, and funds from other sources have been used to fund programs which have been developed, and are currently in various phases of implementation, that restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within each of the following Ecological Management Zones: American River Basin, Butte Basin, Colusa Basin, Cottonwood Creek, Feather River/Sutter Basin, North Sacramento Valley, Sacramento River, and Yolo Basin. One project is restoring habitat conditions in the American River EMZ that maintain continuous corridors of suitable riparian habitat for valley elderberry longhorn beetle. Northern California black walnut native stands have not been protected through conservation easement or purchase. No projects identify protected or managed sites for introduction of additional populations of northern California black walnut.</p>		<p>AGENCY NOTES --</p>	<p>NOTES CONT'D --</p>
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MULTI SPECIES CONSERVATION STRATEGY MILESTONE 62 -- EVALUATION OF INDIVIDUAL PROJECTS REVIEWED TO FORMULATE THE ROLLED UP SUMMARY

MS Number	REGION	Project Type	Milestone	ERP Targets taken from ERPP Vol 2	MS Components or Questions for field personnel	ERP PROJECT NUMBERS	CONTRACT		CALFED Award	Cost Share	Total Project Cost	Applicant	Principal Investigator	Quantifiable Units	Project Name	Comments
							START DATE	END DATE								
62	SAC	H	Develop and implement a program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within each of the following Ecological Management Zones: American River Basin, Butte Basin, Colusa Basin, Cottonwood Creek, Feather River/Sutter Basin, North Sacramento Valley, Sacramento River, and Yolo Basin. While restoring habitat conditions in the American River EMZ, maintain continuous corridors of suitable riparian habitat for valley elderberry longhorn beetle.		62A. Status of program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within the American River EMZ (American Basin, Lower American River)	ERP-97-N05	Mar-99	Jun-00	222,530	0	222,530	Placer County Planning Department	Loren Clark		Auburn Ravine/Coon Creek Restoration Planning	Develop a plan with major emphasis on protection and restoration of riparian and aquatic habitats. John Nelson, Department of Fish and Game. Planning; project completed.

MS Number	REGION	Project Type	Milestone	ERP Targets taken from ERPP Vol 2	MS Components or Questions for field personnel	ERP PROJECT NUMBERS	CONTRACT		CALFED Award	Cost Share	Total Project Cost	Applicant	Principal Investigator	Quantifiable Units	Project Name	Comments
							START DATE	END DATE								
62	SAC	H			62A. Status of program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within the American River EMZ (American Basin, Lower American River)	ERP-99-N21	Apr-01	Apr-02	250,000	550,000	800,000	Sacramento City-County Office of Metropolitan Water Planning (Water Forum)	Susan Davidson		Development of a River Corridor Management Plan for the Lower American River	The project tasks are: 1) Creates a consensus building process to resolve critical scientific issues, coordinator activities and plans among various agencies and stakeholder forums, and guide broad participation in the development of the River Corridor Management Plan (RCMP); 2) Identify fisheries and aquatic habitat restoration needs and priorities; 3) involve developing an integrated riparian vegetation and preventive erosion control program, a master plan for riparian and terrestrial habitats, and an infrastructure redesign and relocation program for the LAR. John Nelson, DFG. Planning. Project completed.
62	SAC	H	Protect existing known occurrences of northern California black walnut native stands through conservation easement or purchase.		62B. Status of program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within the Butte Basin EMZ (Paynes Creek, Antelope Creek, Mill Creek, Deer Creek, Big Chico Creek, Butte Creek, Butte Sink	ERP-97-E01	Mar-98	Jun-99	422,830	0	422,830	Big Chico Creek Watershed Alliance	Joe Karkoski		Watershed Plan, Big Chico Creek	This project will evaluate and develop a watershed plan for Big Chico Creek. Tasks include assessment of existing conditions, modeling of flow and sediment transport, identification of issues and conflicts, and the development of a watershed management strategy. Contributes to the process of restoration, protection, and management of riparian and floodplain habitat in the Butte Basin (EMZ). Paul Ward DFG. Planning; project completed. AFRP and DWR funded the design of the fish ladders.
62	SAC	H			62B. Status of program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within the Butte Basin EMZ (Paynes Creek, Antelope Creek, Mill Creek, Deer Creek, Big Chico Creek, Butte Creek, Butte Sink	ERP-97-E02	Jan-98	Dec-99	199,554	0	199,554	California State University, Chico	Donald Holtgrieve		Deer Creek Watershed Management/Implementation Program	This project will evaluate and develop a watershed plan for Deer Creek. Tasks include assessment of existing conditions, modeling of flow and sediment transport, identification of issues and conflicts, and the development of a watershed management strategy. Contributes to the process of restoration, protection, and management of riparian and floodplain habitat in the Butte Basin (EMZ). Patricia Bratcher, DFG. Implement water management strategy and water quality program. Implementation; project completed.
62	SAC	H	Identify at least 3 protected and managed sites for introduction of additional populations of northern California black walnut; begin introduction and monitor for success. Population creation should be part of a broader effort to restore riparian areas which historically contained walnut.		62B. Status of program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within the Butte Basin EMZ (Paynes Creek, Antelope Creek, Mill Creek, Deer Creek, Big Chico Creek, Butte Creek, Butte Sink	ERP-97-N06	Nov-98	Oct-99	187,128	257,441	444,569	CSU Chico	Laura Lukes		Butte Creek Acquisition	Project will purchase a 90+ acre parcel with approx 4,000 feet of creek frontage. Paul Ward DFG. Planning; project completed.

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62	SAC	H			62B. Status of program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within the Butte Basin EMZ (Paynes Creek, Antelope Creek, Mill Creek, Deer Creek, Big Chico Creek, Butte Creek, Butte Sink	ERP-98-F01	Sep-98	Dec-01	302,745	0	302,745	CSU Chico	Donald Holtgrieve		The Butte Creek Watershed Educational Workshops and Field Tours Series	Contributes to restoration efforts along Butte Creek. The project tasks: 1) Hire the Butte Creek Watershed Coordinator Assistant; 2) Develop the Butte Creek Watershed Education Project; 3) Conduct Butte Creek Watershed Road Survey (identifying sediment problems); 4) Implement the Riparian Education and Geomorphology Analysis of Butte Creek. Paul Ward, DFG. Conduct a road survey that monitors erosion and sedimentation. Train field personnel and maintain data base. Implementation; project completed.
62	SAC	H			62B. Status of program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within the Butte Basin EMZ (Paynes Creek, Antelope Creek, Mill Creek, Deer Creek, Big Chico Creek, Butte Creek, Butte Sink	ERP-98-F03	Sep-99	n/a	125,000	422,068	547,068	CSU Chico	Donald Holtgrieve, Dept of Geography and Planning; Laura Lukes Project Manager		Butte Creek Acquisition and Riparian Restoration	This contract is for matching funds only towards purchase of 80+ acre McAmis Property with approximately 4000 ft of creek frontage. This restoration project will develop methods of channel and floodplain management, and development of a riparian corridor. Paul Ward, DFG. Purchase 80 acres; 4,000 feet of creek footage along Butte Creek. Implementation; project completed.
62	SAC	H			62B. Status of program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within the Butte Basin EMZ (Paynes Creek, Antelope Creek, Mill Creek, Deer Creek, Big Chico Creek, Butte Creek, Butte Sink	AFRP-00-11						AFRP	Tricia Parker USFWS		Acquire a riparian easement on the Hidden Marina Resort property at the confluence of Mill Creek and the Sacramento River	Objective: To protect riparian land for fish and wildlife; To improve the long-term sustainability of natural production of anadromous fish populations, in particular spring-run Chinook salmon and steelhead; and To support local community efforts toward habitat protection and enhancement. Likely for funding in FY2000.
62	SAC	H			62B. Status of program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within the Butte Basin EMZ (Paynes Creek, Antelope Creek, Mill Creek, Deer Creek, Big Chico Creek, Butte Creek, Butte Sink	AFRP-00-13			98,238		98,238	AFRP	Tricia Parker USFWS		Provide preliminary engineering and environmental documents for several erosion control projects in the upper watershed	This project will initiate the implementation of several projects aimed at restoring the aquatic and riparian habitat crucial to spring-run Chinook salmon and other anadromous fish in Deer Creek. Objective: (1) Prepare preliminary engineering reports;(2) prioritize project list; (3) prepare environmental documentation; (4) conduct outreach. (3/02) This project is closed. The erosion sites were identified and the landowners (Forest Service and Collins Pine) worked out the best solutions for each of the problems (e.g. culverts or rock fords or low water crossings) with staff from Chico State University and Meadowbrook Consulting Firm. They identified the appropriate environmental documentation and permits that are needed for project implementation.
62	SAC	H			62B. Status of program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within the Butte Basin EMZ (Paynes Creek, Antelope Creek, Mill Creek, Deer Creek, Big Chico Creek, Butte Creek, Butte Sink	ERP-98-F24	Dec-98	Sep-00	76,348	0	76,348	CSU Chico	Donald Holtgrieve, Dept of Geography and Planning.		Butte Creek Riparian Restoration Demonstration	This project will establish riparian restoration (Task 2a). Paul Ward, DFG. Close off all unauthorized vehicle access and monitor water quality, revegetation areas and wildlife populations. Implementation; project completed. The Packard Foundation funded a spring-run chinook salmon project.

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62	SAC	H			62B. Status of program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within the Butte Basin EMZ (Paynes Creek, Antelope Creek, Mill Creek, Deer Creek, Big Chico Creek, Butte Creek, Butte Sink	ERP-01-N26	Oct-01	Oct-04	849,845	0	849,845	United States Department of Agriculture Forest Service, Lassen National Forest (LNF)	Russ Volke		Lassen National Forest Watershed Stewardship Within the Anadromous Watersheds of Butte, Deer, and Mill Creeks	The LNF watershed stewardship project includes three watershed-based restoration tasks within the anadromous watersheds of Deer, Mill, and Butte Creeks. Tasks 1a and 2a include 44 extensive sediment reduction projects in Deer and Mill Creek watersheds. Additional proposed activities include Colby Creek Meadow condition survey; followed by the implementation of meadow restoration demonstration projects, installation of interpretive displays at seven recreation areas along Deer and Mill Creeks, a campground education program at Potato Patch campground, a summer patrol of the spring-run chinook salmon spawning areas in Deer Creek, and the establishment of Watershed Stewardship education programs at Chester Elementary and High Schools. Ken Roby,USFWS. Implementation of various restoration projects on Butte, Deer, and Mill Creeks; 66 percent complete.
62	SAC	H			62B. Status of program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within the Butte Basin EMZ (Paynes Creek, Antelope Creek, Mill Creek, Deer Creek, Big Chico Creek, Butte Creek, Butte Sink	ERP-00-F11	Mar-01	Mar-06	1,063,600	None	1,063,600	Sonoma Ecology Center	Richard Dale		Arundo donax Eradication and Coordination	This project will direct funds to eradication partners in six watersheds (Putah Creek, Big Chico Creek, Sonoma Creek, Walnut Creek, Napa River, and San Francisquito Creek) that are prepared to immediately carry out Arundo eradication (an invasive non-native plant) throughout the Bay-Delta and the Sacramento-San Joaquin watersheds. Kim Webb, USFWS. Implementation; project not completed. This project will direct eradication funds for on-the-ground eradication of Arundo, the state's most invasive riparian weed, to eradication partners in six watersheds, including Big Chico Creek.
62	SAC	H			62B. Status of program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within the Butte Basin EMZ (Paynes Creek, Antelope Creek, Mill Creek, Deer Creek, Big Chico Creek, Butte Creek, Butte Sink	ERP-02-P16-D			2,603,377		2,603,377	The Nature Conservancy	Sam Lawson		Restoration of the Confluence Area of the Sacramento River, Big Chico and Mud Creeks	Protect and restore 311 acres of flood-prone land located within the Sacramento River Conservation Area at the confluence of the Sacramento River, Big Chico and Mud Creeks at river miles 194-195. Cathy Morris, The Nature Conservancy. Acquisition; just beginning.
62	SAC	H			62B. Status of program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within the Butte Basin EMZ (Paynes Creek, Antelope Creek, Mill Creek, Deer Creek, Big Chico Creek, Butte Creek, Butte Sink	ERP- 02-P26			4,700,000	0	4,700,000	The Nature Conservancy	Jake Jacobson		Mill and Deer Creeks Protection and Stewardship	Enhancing (protecting) wildlife friendly agricultural practices program on Mill Creek and Deer Creek in the Butte Basin. 36,000 acres. Acquisition; project not complete, 1 property will close in June.
62	SAC	H			62B. Status of program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within the Butte Basin EMZ (Paynes Creek, Antelope Creek, Mill Creek, Deer Creek, Big Chico Creek, Butte Creek, Butte Sink	ERP-98-C18	Dec-98	Nov-01	24,000	0	24,000	CDWR	Derrick Adachi		HAZMAT Review for ERP Land Acquisitions	DWR will oversee or evaluate the work of outside consultants and contractors to ensure the all applicable regulatory requirements and standard operating procedures for environmental site assessments and remedial actions are complied with. DWR will also provide or conduct environmental site assessment activities. Derrick Adachi, DWR. Planning. Project completed.

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62	SAC	H			62B. Status of program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within the Butte Basin EMZ (Paynes Creek, Antelope Creek, Mill Creek, Deer Creek, Big Chico Creek, Butte Creek, Butte Sink	ERP-96-M24	Mar-97	Apr-98	83,100	83,100	166,200	California State University Chico	Jeff Wright		Butte Creek Watershed Management Plan	Paul Ward, DFG. Project completed, Planning
62	SAC	H			62B. Status of program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within the Butte Basin EMZ (Paynes Creek, Antelope Creek, Mill Creek, Deer Creek, Big Chico Creek, Butte Creek, Butte Sink	AFRP-00-02			69,000		69,000	AFRP	Tricia Parker USFWS	2.7 miles riparian habitat	Protect riparian habitat on the Leininger property on Deer Creek	Objective: Exclude cattle year-round from the riparian zone to protect existing or recently planted riparian vegetation from grazing and trampling. Contract completed 8/2000 between FWS (AFRP) and The Nature Conservancy.
62	SAC	H			62B. Status of program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within the Butte Basin EMZ (Paynes Creek, Antelope Creek, Mill Creek, Deer Creek, Big Chico Creek, Butte Creek, Butte Sink	AFRP-00-14			500,000	3,200,000	3,700,000	AFRP	John Icanberry USFWS		Acquire Simmons Ranch on Big Chico Creek	This project seeks the initial funding to acquire a 2,724-acre site in the Big Chico Creek watershed known as the Simmon's Ranch. Big Chico Creek is one of only four streams in the Sacramento Valley that provide habitat for a wild, persistent population of spring run salmon. The Simmon's Ranch acquisition would protect 2.5 miles or half of the spring-run holding habitat on Big Chico Creek. During the week of August 7, 2000, The River Conservancy, a program of River Network, an Oregon-based conservation group, closed the purchase of this property from private owners, and at the same time sold it to the University's Research Foundation. The Foundation will own and manage the ranch as a nature preserve that will provide educational and research opportunities for students.
62	SAC	H			62B. Status of program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within the Butte Basin EMZ (Paynes Creek, Antelope Creek, Mill Creek, Deer Creek, Big Chico Creek, Butte Creek, Butte Sink	AFRP-00-17			59,083		59,083	AFRP	John Icanberry USFWS	.2 miles of riparian enhancement	Promote re-vegetation of recently riprapped areas in the vicinity of Okie Dam on Butte Creek	Objective: Revegetate extensive areas of rip-rap, coordinate a pilot study investigating a methodology for establishing riparian vegetation on cobble fields, and develop a comprehensive restoration plan for the entire 4-mile reach of Butte Creek. The proposal will be carried out in 3 phases: 1) revegetate a 1,000 foot section of rip-rap; 2) coordinate a pilot study investigating a methodology for establishing riparian vegetation on cobble fields to be coordinated by a restoration ecologist; and 3) develop a comprehensive restoration plan for the entire 4-mile reach of Butte Creek utilizing information derived from the cobble field revegetation pilot study. Contract completed 9/2000 between FWS (AFRP) and Chico State University, Chico Research Foundation.

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62	SAC	H			62B. Status of program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within the Butte Basin EMZ (Paynes Creek, Antelope Creek, Mill Creek, Deer Creek, Big Chico Creek, Butte Creek, Butte Sink	AFRP-00-16			50,000	250,000	300,000	AFRP	John Icanberry USFWS		Acquire the Singh property of Big Chico Creek	The Singh property is 40.4 acres located west of Mud Creek, north of the Bidwell-Sacramento River State Park and adjacent to the Sacramento River in Butte County, Ca. Objective: Conduct baseline biological and environmental surveys, implement interim restoration and start up stewardship actions and develop a long term restoration and management plan prior to acquisition by The Nature Conservancy. Contract was signed 8/2000 between FWS (AFRP) and The Nature Conservancy. TNC staff, Ayres Associates and CSU Chico personnel under contract to TNC are proceeding with data collection, a baseline assessment, and hydraulic modeling of the general area of the Singh, Mendonca, and Nicolas tracts between Mud Creek and the Sacramento River, and the Nock tract between Mud Creek and Big Chico Creek. These studies are taking place and will be evaluated within the larger context of the Chico Landing Sub-Reach Study that TNC is conducting as a portion of its obligations under CalFed Grant # 97-NO2.
62	SAC	H			62B. Status of program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within the Butte Basin EMZ (Paynes Creek, Antelope Creek, Mill Creek, Deer Creek, Big Chico Creek, Butte Creek, Butte Sink	AFRP-00-15						AFRP	John Icanberry USFWS		Acquire the Nock property on Big Chico Creek	The Nock property is 125.2 acres located at the confluence of Mud and Big Chico Creeks near the Sacramento River in Butte County, Ca. The protection and restoration of the Nock property will help create more complex and continuous shoreline vegetation, increase available woody debris, and broaden the riparian buffer providing improved refugia for juvenile fish. The anticipated long term ecological benefits of the proposed project are to help protect and facilitate enhancement of the meanderbelt and associated floodplain of the Sacramento River. Objective: Conduct baseline biological and environmental surveys, implement interim restoration and start up stewardship actions and develop a long term restoration and management plan prior to acquisition by The Nature Conservancy. Status: Likely for funding in FY2000.
62	SAC	H			62B. Status of program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within the Butte Basin EMZ (Paynes Creek, Antelope Creek, Mill Creek, Deer Creek, Big Chico Creek, Butte Creek, Butte Sink	ERP-98-F20	Aug-99	Dec-02	1,000,000	0	1,000,000	The Nature Conservancy	Peggy McNutt		Deer and Mill Creek Acquisition and Enhancement	Project will identify willing sellers, complete appraisals, and acquire at least one parcel. Jake Jacobsen, The Nature Conservancy. Implementation; 35 percent complete. Some land has been purchased. Acquire and restore 2,500 acres for a conservation easement on Deer and Mill Creeks. WCB and Packard Foundation will help fund this project.
62	SAC	H			62C. Status of program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within the Colusa Basin EMZ (Stoney Creek, Elder Creek, Thomes Creek, Colusa Basin)	ERP-97-N04	Feb-98	Feb-01	898,700	0	898,700	The Nature Conservancy	Meghan Mazzoni		Sacramento River Meander Restoration	Project will acquire 94.55 acres and restore 10 acres to riparian habitat. Ryan Luster, The Nature Conservancy. Implementation; 10 was restored to riparian habitat, 600 acres were reconnected to the Sacramento River Floodplain. Project completed.
62	SAC	H			62C. Status of program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within the Colusa Basin EMZ (Stoney Creek, Elder Creek, Thomes Creek, Colusa Basin)	ERP-98-C18	Dec-98	Nov-01	24,000	0	24,000	CDWR	Derrick Adachi		HAZMAT Review for ERP Land Acquisitions	DWR will oversee or evaluate the work of outside consultants and contractors to ensure the all applicable regulatory requirements and standard operating procedures for environmental site assessments and remedial actions are complied with. DWR will also provide or conduct environmental site assessment activities. Derrick Adachi, DWR. Planning. Project completed.

MS Number	REGION	Project Type	Milestone	ERP Targets taken from ERPP Vol 2	MS Components or Questions for field personnel	ERP PROJECT NUMBERS	CONTRACT		CALFED Award	Cost Share	Total Project Cost	Applicant	Principal Investigator	Quantifiable Units	Project Name	Comments
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62	SAC	H			62C. Status of program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within the Colusa Basin EMZ (Stoney Creek, Elder Creek, Thomes Creek, Colusa Basin)	ERP-99-N14	Jun-01	May-04	492,500	191,000	683,500	Colusa Resource Conservation District	Christopher Rose		Colusa Basin Watershed Project	Contributes to monitoring and restoration efforts along the Colusa Basin (600,000 acres). The Colusa Basin Drain Watershed project will serve as a project that assists private landowners in addressing non-point source pollution, flood control issues, exotic invasive weeds, and reactivating important ecological processes and functions of riparian corridors. The project will consist of 6 to 12 selected sites, which will implement riparian enhancement and other restoration practices. Patti A. Turner, Colusa County Resource Conservation District. Implementation; 75 percent complete. Six sites are done. Monitoring and restoration of 600,000 acres. Land owners, NCRS, and Colusa Basin Drainage funded restoration projects.
62	SAC	H			62C. Status of program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within the Colusa Basin EMZ (Stoney Creek, Elder Creek, Thomes Creek, Colusa Basin)	ERP-01-N04	Sep-01	Dec-06	539,835	0	539,835	CSU Chico	Richard Holman; Kristin Carter		Survey and Eradication of Arundo donax	Restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along Elder Creek within the Colusa Basin EMZ. Full eradication of <i>Arundo donax</i> and <i>Tamarix</i> on Deer and Brickyard Creek and the start of eradication work on Red Bank Creek. Project not completed. Implementation. Herbicide full coverage on all of the Arundo in Reeds Creek and covered over a hundred acres on Red Bank. After the plants were treated with herbicide they were able to remove all of the Arundo from Reeds Creek and used new flail mower to mulch a good portion of the treated Tamarisk in the channel of Red Bank. Riparian habitats, in progress.
62	SAC	H			62C. Status of program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within the Colusa Basin EMZ (Stoney Creek, Elder Creek, Thomes Creek, Colusa Basin)	AFRP-00-01			52,000		52,000	AFRP			Study the feasibility of restoring floodplain and riparian processes at the La Barranca Unit of the Sacramento River National Wildlife Refuge	Objective: Determine the feasibility of eliminating a source of fish mortality resulting from past gravel mining operations at the site and to restore riparian processes lost to the existing levee system. The field work is complete and the final report is complete (10-02).
62	SAC	H			62C. Status of program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within the Colusa Basin EMZ (Stoney Creek, Elder Creek, Thomes Creek, Colusa Basin)	ERP-99-B27	Oct-99	3/9/03	13,000	7,686	20,686	Colusa County Resource Conservation District	Patti Ann Turner		Watershed Educational Training	Contributes to monitoring and restoration efforts along the Colusa Basin. The Watershed Educational Training (WET) project revolves around the use of EviroScape interactive watershed models to teach the importance of how the public's actions can have both positive and adverse effects on the watershed ecosystem. Patti A. Turner, Colusa County Resource Conservation District. Educational; project completed.
62	SAC	H			62D. Status of program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within the Cottonwood Creek EMZ (Upper Cottonwood Creek, Lower Cottonwood Creek)	ERP-97-N07	Jul-98	Nov-02	61,000	10,000	71,000	Graham Matthews and Associates	Graham Matthews		Cottonwood Creek Channel Restoration Planning	May contribute to milestone since the creek will have channel work. Patricia Bratcher, DFG. Conduct geomorphic analysis, hydrologic analysis and survey sites. Planning/ Implementation; project completed.

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62	SAC	H			62D. Status of program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within the Cottonwood Creek EMZ (Upper Cottonwood Creek, Lower Cottonwood Creek)	ERP-98-E05	Oct-98	Dec-01	161,000	0	161,000	Cottonwood Creek Watershed Group	Vieva Swearingen		Cottonwood Creek Watershed Group Formation	This project will: 1) Identify and organize the landowners to work with public land management agencies, interested parties and resource managers to form consensus on issues and their importance; 2) Coordinate with resources managers which have studied regional needs and correlate those studies with input from stakeholders; 3) Research previous studies within the Cottonwood Creek watershed. Contributes to the process of restoration, protection, and management of riparian and floodplain habitat in the Cottonwood Creek (EMZ). Patricia Bratcher, DFG. Implement watershed stewardship plan for Cottonwood Creek. Implementation; project completed.
62	SAC	H			62D. Status of program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within the Cottonwood Creek EMZ (Upper Cottonwood Creek, Lower Cottonwood Creek)	ERP-00-E03	Oct-00	Dec-05	443,047	0	443,047	Cottonwood Creek Watershed Group	Vieva Swearingen		Cottonwood Creek Watershed Monitoring and Assessment	Continued management of the Cottonwood Creek Watershed Group (CCWG) to oversee the implementation of a watershed plan. This phase would assess current conditions in the watershed (930 sq miles), both as to the land and stream conditions to give a baseline for future projects. Patricia Bratcher,DFG. Monitoring and Assessment; project completed.
62	SAC	H			62 E. Status of program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within the Feather River/Sutter Basin EMZ (Feather River, Yuba River, Bear River, Honcut Creek, Sutter Bypass)	ERP-99-N17	Jun-00	Jun-03	142,618	0	142,618	Yuba Watershed Council/Nevada County Resource Conservation District	Ron Zinke;Cara Wasilewski, also John Van Der Veen		Yuba Watershed Council: Collaborative Approach	Project is to request funding for a watershed coordinator position, including the materials, equipment, and office space necessary to administer and coordinate the efforts of the Yuba Watershed Council. The role of the watershed coordinator is to provide coordination and assistance, adaptive management and monitoring, education and outreach, and continuity and program oversight of current and future watershed projects. May contribute to various Yuba River (EMU) milestones. John Van Derveen, Yuba Watershed Council. Implementation. Project completed.
62	SAC	H			62 E. Status of program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within the Feather River/Sutter Basin EMZ (Feather River, Yuba River, Bear River, Honcut Creek, Sutter Bypass)	ERP-99-B09	Oct-01	Sep-03	171,100	50,000	221,100	Surface Water Resources Inc.	Paul M. Bratovich		Development of an Implementation Plan for Lower Yuba River Anadromous Fish Habitat Restoration	Plan did not talk about riparian habitat restoration but did talk about restoration in general. Ian Drury, DFG. Implementation. Project is 75% completed.
62	SAC	H			62 E. Status of program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within the Feather River/Sutter Basin EMZ (Feather River, Yuba River, Bear River, Honcut Creek, Sutter Bypass)	ERP-01-N62	Dec-01	Aug-04	193,650	0	193,650	South Yuba River Citizens League	Janet Cohen		Yuba Feather Work Group	Restoration of riparian habitat. Ian Drury,DFG. Planning; 30 percent complete. Yuba County Water Agency funded the Yuba River Salmon Carcass Survey. YWCA and PG&E funded Hallwood/ Cordura Fish Screens. YWCA, PG&E, and Tracy Mitigation funded Browns Valley Fish Screens. DFG funded Spring Run Salmon Counts/Passage @Dagerre Dam

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62	SAC	H			62 F. Status of program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within the North Sacramento Valley EMZ (Clear Creek, Cow Creek, Bear Creek, Battle Creek)	ERP-95-M01	?	?	0.00?	500,000	500,000	John (PGE), Harry (DFG)	John Sandoffner; Harry Rectenwald	2 miles	Battle Creek Interm Flow Restoration	Restore and improve floodplain habitat. Implementation; 50 percent complete. Ongoing due to amendments. Restore 2 miles of riparian habitat.
62	SAC	H			62 F. Status of program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within the North Sacramento Valley EMZ (Clear Creek, Cow Creek, Bear Creek, Battle Creek)	ERP-96-M12	Jul-97	Apr-99	306,000	reduced 76,000	230,000	CDFG	Harry Rectenwald		Battle Creek Chinook Salmon and Steelhead Restoration Study	Restore and maintain riparian habitat. Planning; project completed.
62	SAC	H			62 F. Status of program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within the North Sacramento Valley EMZ (Clear Creek, Cow Creek, Bear Creek, Battle Creek)	ERP-96-M25	May-97	Oct-99	50,000	50,000	100,000	Western Shasta Resource Conservation District	Richard Baumann		Battle Creek Watershed Management Strategy Project	Planning / Education; project completed. Harry Rectenwald, DFG.
62	SAC	H			62 F. Status of program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within the North Sacramento Valley EMZ (Clear Creek, Cow Creek, Bear Creek, Battle Creek)	ERP-98-E06	Jan-98	Dec-99	145,000	0	145,000	Battle Creek Watershed Conservancy	Donald Holtgrieve		Battle Creek Watershed Stewardship	This project will evaluate and develop a watershed plan for Battle Creek. Contributes to the process of restoration, protection, and management of riparian and floodplain habitat in the North Sacramento Valley (EMZ). Education / Instruction; project completed. Harry Rectenwald, DFG
62	SAC	H			62 F. Status of program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within the North Sacramento Valley EMZ (Clear Creek, Cow Creek, Bear Creek, Battle Creek)	ERP-98-E15	Oct-98	May-01	23,828	0	23,828	Sacramento Watersheds Action Group	John McCullah		Sulphur Creek Coordinated Watershed Management Plan Group	Sulphur Creek CRMP will distribute the Watershed Analysis, develop community-based restoration objectives, pursue funding to implement projects identified in the Watershed Analysis, and enhance public awareness and education in fisheries and watershed issues. May contribute to various habitat restoration, protection, and management milestones for the North Sacramento Valley (EMZ), Clear Creek (EMU). John McCullah, Sacramento Watersheds Action Group. Planning / Education. Project completed.

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62	SAC	H			62 F. Status of program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within the North Sacramento Valley EMZ (Clear Creek, Cow Creek, Bear Creek, Battle Creek)	ERP-98-F15	Apr-99	Sep-01	3,599,596	500,000	4,099,596	Western Shasta Resource Conservation District	Jeff Souza	3 miles	Lower Clear Creek Floodway Restoration Project	Phase II restoration activities: 1. Develop design documents for Phase 2 through 4. 2. Prepare CEQA/NEPA documents and environmental permits for Phase 2. 3. Recreate functional floodplain in the Mined Reach and the Reading Bar Ranch. 4. Mitigate wetland loss by creating off-channel wetlands at the Reading Bar Reach. 5. Reduce or eliminate juvenile and adult salmonid stranding by filling historic instream aggregate extraction pits to functional floodplain. 6. Restore riparian vegetation on reconstructed floodplain surfaces. 7. Remove exotic vegetation from Mined Reach and the Reading Bar Reach. 8. Develop and implement biological, geographic, and riparian monitoring plan. Mary Shroeder, Western Shasta Resource Conservation District. Planning / Implementation; project completed. Restore 3 miles (in 2 reaches) of stream channel and floodplain on public lands along Clear Creek
62	SAC	H			62 F. Status of program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within the North Sacramento Valley EMZ (Clear Creek, Cow Creek, Bear Creek, Battle Creek)	ERP-99-N16	Apr-00	Apr-02	256,260	0	256,260	Western Shasta Resource Conservation District	Thomas T. Engstrom		Clear Creek Prescription	Establish, restore, and maintain habitat. Mary Shroeder, Western Shasta Resource Conservation District. Planning / Implementation; project completed. Implement watershed management prescription.
62	SAC	H			62 F. Status of program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within the North Sacramento Valley EMZ (Clear Creek, Cow Creek, Bear Creek, Battle Creek)	IMM-02-I01	Mar-03		2,206,625	0	2,206,625	The Nature Conservancy	Jake Jacobson		Battle Creek Protection and Stewardship	One of the project goals is to protect long-term sustainability of freshwater fish habitat that supports various life cycle stages of Pacific lamprey, chinook salmon and steelhead trout by purchasing conservation easements on over 6,800 acres of habitat lands. Project not completed, still negotiating on properties. One property may close in fall. Acquisition.
62	SAC	H			62 F. Status of program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within the North Sacramento Valley EMZ (Clear Creek, Cow Creek, Bear Creek, Battle Creek)	AFRP-00-10		Mar-02	421,700	310,000	731,700	AFRP	Tricia Parker USFWS	2.5 miles	Acquire a conservation easement on the Eagle Canyon Ranch (Pelton property) at the confluence of Digger Creek and the North Fork of Battle Creek	This project will fund the purchase of a conservation easement on approximately 990 acres along Digger Creek and the North Fork of Battle Creek. The Eagle Canyon Ranch (Pelton property) begins at the confluence of the North Fork and Digger Creek and includes approximately 2.5 miles of frontage on the south side of the North Fork and riparian water rights on Digger Creek. The Eagle Canyon Ranch (Pelton property) had previously been used as a sheep ranch, although new owners have reintroduced cattle. By purchasing a conservation easement on the property, The Nature Conservancy intends to protect a significant portion of winter-run and spring-run Chinook salmon spawning habitat in the North Fork from land use conversion and loss of riparian vegetation. Digger Creek also provides an additional source of cool waters for the North Fork. Project completed on 3/18/02
62	SAC	H			62 F. Status of program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within the North Sacramento Valley EMZ (Clear Creek, Cow Creek, Bear Creek, Battle Creek)	ERP-01-N24	Nov-01	Oct-04	1,000,000	0	1,000,000	The Nature Conservancy	Jake Jacobson		Battle Creek Conservation Easements Acquisitions, Management, and Restoration Planning	Assistance in the acquisition of conservation easements and initial stewardship and monitoring of three critical riparian properties, totaling approximately 3,000 acres, along the mainstream and the North and South Forks of Battle Creek. Project not complete. Acquisition. 1,511 acres have been placed in conservation easement. Just completing the stewardship and monitoring parts. Hopefully will secure future water rights. Negotiating 6,300 acres of riparian and upland habitat for a conservation easement along Pine Creek.

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62	SAC	H			62 F. Status of program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within the North Sacramento Valley EMZ (Clear Creek, Cow Creek, Bear Creek, Battle Creek)	AFRP-01-10	2000 ?	9/30/02 ?	299,606 ?	75,000	224,606	Battle Creek Watershed Conservancy (BCWC)	Sharon Paquin-Gilmore, Watershed Coordinator		Battle Creek Watershed Stewardship, Phase 2	BCWC proposes a project to do all of the following: 1) Complete an assessment of watershed conditions in the upper watershed and in the lands lying immediately upland of Battle Creek's Restoration Project reaches. 2) Implement, in close cooperation with the resource agencies and local schools, a watershed information system to support Restoration Project monitoring, assessment, and adaptive management. 3) Sustain implementation of the Battle Creek Watershed Strategy, through work in the schools and communities, with agencies and landowners, toward the complementary objectives of safeguarding the Battle Creek watershed's lightly- populated, agricultural lifestyle and protecting the public investment in the Battle Creek Salmon and Steelhead Restoration Project. Harry Rectenwald, DFG. Planning / Implementation; 50 percent complete. Project is ongoing. Watershed strategy is complete. Conservation easement planning is complete. Implement an information system for watershed.
62	SAC	H			62 F. Status of program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within the North Sacramento Valley EMZ (Clear Creek, Cow Creek, Bear Creek, Battle Creek)	ERP-99-B01	Feb-99	Apr-01	26,958,100	23,550,900	50,509,000	DFG and USBR	Harry Rectenwald or Mike Ryan		Battle Creek Salmon and Steelhead Restoration Project	Establish, restore and maintain existing habitat. Planning and Design; 90 percent complete. Planning and design nearly done.
62	SAC	H			62 G. Status of program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within the Sacramento River EMZ (Keswick to Red Bluff, Red Bluff to Chico Landing, Chico Landing to Colusa, Colusa to Verona, Verona to Sacramento)	ERP-96-M03	Oct-98	Sep-99	500,000	500,000	1,000,000	Department of Water Resources	Bob Nozuka		Sacramento River (Verona to Collinsville) Riparian Habitat Restoration (Phase 1 Feasibility)	Restore shaded riverine aquatic habitat (SRA) along 20 miles of the Sacramento River from Collinsville to Verona. Bob Nozuka, DWR. Planning/ Feasibility. The project is 75 percent complete. Feasibility phase is complete.
62	SAC	H			62 G. Status of program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within the Sacramento River EMZ (Keswick to Red Bluff, Red Bluff to Chico Landing, Chico Landing to Colusa, Colusa to Verona, Verona to Sacramento)	ERP-96-M16	Aug-97	Sep-98	1,450,200	0	1,450,200	California State University, Chico	Charles W. Nelson		Sacramento River & Major Tributaries Riparian Corridor Mapping Project	Mapping of riparian vegetation along rivers and streams in the Sacramento Valley portions of Glenn, Sutter, Colusa, Yuba, Yolo, and Sacramento Counties. Contributes to the process of restoring the Sacramento River Basin (EMZ), protecting Inner River Zone areas between Red Bluff and Colusa reaches within identified the Sacramento River Conservation, restoration and protection of riparian habitat in the Sacramento River Basin (EMZ). Mapped riparian vegetation, open water, gravel bars, disturbed riparian, and invasive (Arundo, Tamarix, Rubus discolor) throughout the Sacramento River and major tributaries. Monitoring; project completed.

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62	SAC	H			62 G. Status of program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within the Sacramento River EMZ (Keswick to Red Bluff, Red Bluff to Chico Landing, Chico Landing to Colusa, Colusa to Verona, Verona to Sacramento)	ERP-98-C18	Dec-98	Nov-01	24,000	0	24,000	CDWR	Derrick Adachi		HAZMAT Review for ERP Land Acquisitions	DWR will oversee or evaluate the work of outside consultants and contractors to ensure the all applicable regulatory requirements and standard operating procedures for environmental site assessments and remedial actions are complied with. DWR will also provide or conduct environmental site assessment activities. Derrick Adachi, DWR. Planning. Project completed.
62	SAC	H			62 G. Status of program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within the Sacramento River EMZ (Keswick to Red Bluff, Red Bluff to Chico Landing, Chico Landing to Colusa, Colusa to Verona, Verona to Sacramento)	ERP-98-F18	Mar-99	Sep-01	1,000,000	0	1,000,000	The Nature Conservancy	Sam Lawson		Floodplain Acquisition, Management, and Monitoring of the Sacramento River	Project will identify willing sellers on floodplain lands within the Sacramento River Conservation Area between Kewswick and Verona. Planning to restore all 288 acres to riparian floodplain habitat. Kathy Morse, The Nature Conservancy. Project completed, Acquisition/Planning
62	SAC	H			62 G. Status of program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within the Sacramento River EMZ (Keswick to Red Bluff, Red Bluff to Chico Landing, Chico Landing to Colusa, Colusa to Verona, Verona to Sacramento)	ERP-97-C03	Jul-98	Dec-00	200,000	0	200,000	CDWR	Stacy Cepello		Upper Sacramento River Restoration Planning	This project will provide for a restoration coordinator to guide the formalization of non-profit management entity and related restoration planning of the Upper Sacramento River Watershed. Tasks include hiring a coordinator, setting up organizational structure, oversight and agreements, developing and implementing public outreach, and developing a plan for Woodson Bridge and one other sub-reach. Contributes to the process of restoring the Sacramento River Basin (EMZ), protecting Inner River Zone areas between Red Bluff and Colusa reaches within identified the Sacramento River Conservation, restoration and protection of riparian habitat in the Sacramento River Basin (EMZ). Planning; project completed. The project setup a non-profit management entity and for restoration planning of the Upper Sacramento River Watershed. The Army Corps of Engineers have taken over the planning and implementation for the Woodson Bridge restoration efforts.
62	SAC	H			62 G. Status of program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within the Sacramento River EMZ (Keswick to Red Bluff, Red Bluff to Chico Landing, Chico Landing to Colusa, Colusa to Verona, Verona to Sacramento)	ERP-97-N02	Feb-98	Feb-01 ?	9,879,800	5,257,000	15,136,800	TNC, USFWS, Wildlife Conservation Board	John Carlon, Gary Kramer, Scott Clemons		Sacramento River Floodplain Acquisition and Riparian Restoration	This project will acquire 1,500 acres in Ces or fee title that will include SRA, instream aquatic, riparian and riverine aquatic and compatibly managed agricultural lands. Acquired 1,084 acres for riparian restoration. Kathy Morse, The Nature Conservancy. Project completed, Acquisition

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62	SAC	H			62 G. Status of program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within the Sacramento River EMZ (Keswick to Red Bluff, Red Bluff to Chico Landing, Chico Landing to Colusa, Colusa to Verona, Verona to Sacramento)	ERP-97-N03A	Dec-98	Dec-01	780,000	0	780,000	The Nature Conservancy	Meghan Mazzoni	204 acres	Sacramento River-Active Restoration of Riparian Forest	Will restore 200 acres of flood-prone agricultural lands to native riparian forest along the Sacramento River. Ryan Luster, The Nature Conservancy. Implementation; 204 acres were restored to riparian habitat, project completed.
62	SAC	H			62 G. Status of program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within the Sacramento River EMZ (Keswick to Red Bluff, Red Bluff to Chico Landing, Chico Landing to Colusa, Colusa to Verona, Verona to Sacramento)	ERP-97-N03B	Mar-99	Mar-02	512,500	0	512,500	Wildlife Conservation Board	Scott Clemons	75 acres	Sacramento River-Active Restoration of Riparian Forest	This project will restore 100 acres of flood-prone agricultural lands to native riparian forest along the Sacramento River. Ryan Luster, The Nature Conservancy. Implementation; 75 acres of riparian habitat are being restored, project completed. It is 75 acres instead of 100 acres that were being restored.
62	SAC	H			62 G. Status of program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within the Sacramento River EMZ (Keswick to Red Bluff, Red Bluff to Chico Landing, Chico Landing to Colusa, Colusa to Verona, Verona to Sacramento)	ERP-99-B12	3/31/00	4/30/03	2,175,000	0	2,175,000	BLM	Charles Schultz	10 miles	Riparian Corridor Acquisition and Restoration Assessment	Project will establish a conservation easement acquisition on the Gover Ranch, and conduct geomorphic studies of a reach of the Sacramento River. Some of the land will be covered by an agricultural easement. 1412 acres. Harry Rectenwald, DFG. Implementation; project completed. Acquired a conservation easement of 1412 acres and protected 10 miles of riparian habitat on Battle Creek.
62	SAC	H			62 G. Status of program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within the Sacramento River EMZ (Keswick to Red Bluff, Red Bluff to Chico Landing, Chico Landing to Colusa, Colusa to Verona, Verona to Sacramento)	ERP-01-N28	Oct-01	Oct-04	541,747	0	541,747	CDWR	Burt Bundy		Sacramento River Conservation Area Program	The project involves hiring a manager and office staff for a three-year period to assist in the development and implementation of site-specific plans for areas within the Sacramento River Riparian Conservation Area, and to manage a new nonprofit riparian land management entity that will coordinate activities and continue the process of building broader support and understanding of the goals of the SB 1086 program. Burt Bundy, Sacramento River Conservation Area Forum. Planning; project completed. The project provided funding to continue the efforts of the Sacramento River Conservation Area Program to act as a coordinating body between local, state, and federal agencies regarding restoration activities in the Sacramento River watershed.

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							START DATE	END DATE								
62	SAC	H			62 G. Status of program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within the Sacramento River EMZ (Keswick to Red Bluff, Red Bluff to Chico Landing, Chico Landing to Colusa, Colusa to Verona, Verona to Sacramento)	ERP-02-C01-D	Jul-01	Jun-05	4,432,966	0	4,432,966	USGS	Charlie Alpers		Upper Yuba River: Water Quality and Sediment Studies	Develop and implement a program to establish, restore and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary in each of the following: (Sacramento River). Ian Drury,DFG. Implementation; 50 percent complete. Gravel augmentation only. Implement gravel augmentation.
62	SAC	H			62 G. Status of program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within the Sacramento River EMZ (Keswick to Red Bluff, Red Bluff to Chico Landing, Chico Landing to Colusa, Colusa to Verona, Verona to Sacramento)	ERP-02-C05-D	Nov-02	Oct-04	495,000	345,000	840,000	The Reclamation Board	Pete Rabbon		Hamilton City Ecosystem Restoration and Flood Damage Reduction: Chico Landing Sub-Reach	Project will restore connection to the floodplain and expand riparian habitat to the maximum extent possible, 2,600 acres, in the Hamilton City area while simultaneously reducing the flood risk to local residents. Burt Bundy, Sacramento River Conservation Area Forum. Planning for 6.8 miles of setback levees (MS 59A), 1,500 acres increase in floodplain (MS 59B), restore 1,000 acres of riparian habitat (MS 62G), properties located within the Inner River Zone areas between Red Bluff and Colusa reaches stretch may be habitat for Bank Swallow will be protected (MS 60A&B). Draft plan is complete. Currently seeking public comment.
62	SAC	H			62 G. Status of program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within the Sacramento River EMZ (Keswick to Red Bluff, Red Bluff to Chico Landing, Chico Landing to Colusa, Colusa to Verona, Verona to Sacramento)	ERP-02D-P53	Sep-03	Sep-05	1,519,200	0	1,519,200	Deer Creek Watershed Conservancy	Bill Berens		Lower Deer Creek Restoration and Flood Management: Feasibility Study and Conceptual Design	Project will restore connection to the floodplain and expand riparian habitat to the maximum extent possible in the Deer Creek area. ~10 miles. Vieva Swearingen, Deer Creek Watershed Conservancy. Planning and Design; project just started. (7 percent complete).
62	SAC	H			62 G. Status of program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within the Sacramento River EMZ (Keswick to Red Bluff, Red Bluff to Chico Landing, Chico Landing to Colusa, Colusa to Verona, Verona to Sacramento)	ERP-02-P27			1,488,009	0	1,488,009	The Nature Conservancy	Greg Golet		Sub-reach Planning for the Sacramento River: River Mile 144-164	Restore and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along the Chico Landing to Colusa reach of the Sacramento River EMZ. <20 miles? Unspecified amount will be restored, all will be maintained. Project is in the planning phase. Kathy Morse, The Nature Conservancy. Planning; project less than 1% completed. The project has just started.

MS Number	REGION	Project Type	Milestone	ERP Targets taken from ERPP Vol 2	MS Components or Questions for field personnel	ERP PROJECT NUMBERS	CONTRACT		CALFED Award	Cost Share	Total Project Cost	Applicant	Principal Investigator	Quantifiable Units	Project Name	Comments
							START DATE	END DATE								
62	SAC	H			62 G. Status of program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within the Sacramento River EMZ (Keswick to Red Bluff, Red Bluff to Chico Landing, Chico Landing to Colusa, Colusa to Verona, Verona to Sacramento)	ERP-02-P39		Sep-05	289,784	0	289,784	USFWS	Kevin Foerster	500 acres	Riparian Restoration Planning and Feasibility Study for the Riparian Sanctuary, Llano Seco Unit	Restore and maintain 950 acres of riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along the Chico Landing to Colusa reach of the Sacramento River EMZ. Kevin Foerster, USFWS. Project is 10% complete.
62	SAC	H			62 G. Status of program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within the Sacramento River EMZ (Keswick to Red Bluff, Red Bluff to Chico Landing, Chico Landing to Colusa, Colusa to Verona, Verona to Sacramento)	ERP-99-N04	Mar-00	Mar-03	29,114	37,000	66,114	The California Conservation Corps	Erin Healy		Lake Red Bluff Riparian Area Restoration and Education Support Project	Project consists of approximately 200 feet of boardwalk construction over a sensitive old-growth riparian forest area on land managed by the USFS, south and adjacent to the city of Red Bluff, CA. Approximately 2+ acres of riparian area will be cleared of invasive exotic plant species (including Tree of Heaven, Ailanthus) and replanted with native perennial grasses. Linda Burkholder, California Conservation Corps. Implementation. 2+ acres of riparian habitat. Project completed.
62	SAC	H			62 G. Status of program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within the Sacramento River EMZ (Keswick to Red Bluff, Red Bluff to Chico Landing, Chico Landing to Colusa, Colusa to Verona, Verona to Sacramento)	ERP-00-F03	Jun-00	May-03	519,000	0	519,000	The Nature Conservancy	Sam Lawson		Floodplain Acquisition and Sub-Reach/Site-Specific Management Planning on the Sacramento River (Red Bluff to Colusa)	This contract provides for the planning component of this project. Site specific management planning will be conducted on the Beehive Bend subreach (RM 165-176). This contract will support progress towards the project goals for implementation of a limited meander corridor. Modeling will be used to evaluate the interactions of land use changes with flood control infrastructure, and strategies for maximizing aquatic habitat diversity in the sub-reach.. Task 1: Survey, model, and evaluate potential changes in hydrology and geomorphology. Task 4: Identify future conservation and management actions for the Beehive Bend sub-reach. Mike Roberts, The Nature Conservancy. Planning; project completed.
62	SAC	H			62 H. Status of program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within the Yolo Basin EMZ (Cache Creek, Putah Creek, Solano, Willow Slough)	ERP-98-E13	5/1/99	6/1/02	636,000	0	636,000	National Audubon Society, California Chapter	Judy Boshoven		Union School Slough Watershed Improvement Program	This project will implement sediment reduction practices to 1) reduce pesticide runoff that can degrade water quality (Subtask 6: Construction of Tailwater Ponds: 5 tailwater ponds), and Revegetate canals and ditches that will reduce weed invasion and reduce herbicide use (Subtask 7: Revegetation of Irrigation Canals and Ditches: revegetation of 3 miles of canal and ditch bank). Vance Russell, Audubon California. Implementation. Riparian: 1.05 miles; 56 acres; Grassland treated with prescribed fire: 567 acres; Native perennial grassland restoration: 277 acres; Wetlands/ponds: 15.7 acres; 7 ponds, 1 wetland project.
62	SAC	H			62 H. Status of program to establish, restore, and maintain riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along at least one tributary within the Yolo Basin EMZ (Cache Creek, Putah Creek, Solano, Willow Slough)	ERP-98-E16	Apr-00	Aug-01	105,000	0	105,000	Solano County Department of Environmental Management	Brian Parker		Solano County Lower Putah Creek Watershed Phase1	Establish, restore and maintain riparian habitat. Alex Morin, Solano County Dept. of Environmental Management. Project completed, planning. State Water Resources Control Board is funding the Lower Putah Creek Stewardship Program

MULTI SPECIES CONSERVATION STRATEGY MILESTONE 63 -- ROLLED UP SUMMARY

<p>MILESTONE 63 -- In the Cottonwood Creek EMZ, complete (1) long-term agreements with local landowners to establish, restore, and maintain riparian communities along 25 percent of the upper and 25 percent of the lower reaches of Cottonwood Creek, and (2) the development of a comprehensive watershed management plan that supports local land use decisions to protect existing riparian and restore lost riparian.</p>		<p>PROJECTS REVIEWED - ERP-97-N07, ERP-98-E05, ERP-00-E03, ERP-01-N28, WSP-02-FP-214</p>		<p>SUMMARY -- The majority of ERP contracts addressing this milestone have been used to form the Cottonwood Creek Watershed Group (CCWG) to oversee the implementation of the watershed plan. The progress of projects toward meeting the goal of establishing, restoring, and maintaining riparian communities along 25 percent of the upper and 25 percent of the lower reaches of Cottonwood Creek has not been documented.</p>			<p>AGENCY NOTES --</p>	<p>NOTES CONT'D --</p>
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MULTI SPECIES CONSERVATION STRATEGY MILESTONE 63 -- EVALUATION OF INDIVIDUAL PROJECTS REVIEWED TO FORMULATE THE ROLLED UP SUMMARY

MS Number	REGION	Project Type	Milestone	ERP Targets taken from ERPP Vol 2	MS Components or Questions for field personnel	ERP PROJECT NUMBERS	CONTRACT		CALFED Award	Cost Share	Total Project Cost	Applicant	Principal Investigator	Quantifiable Units	Project Name	Comments
							START DATE	END DATE								
63	SAC	H	In the Cottonwood Creek EMZ, complete (1) long-term agreements with local landowners to establish, restore, and maintain riparian communities along 25 percent of the upper and 25 percent of the lower reaches of Cottonwood Creek, and (2) the development of a comprehensive watershed management plan that supports local land use decisions to protect existing riparian and restore lost riparian.		63 A. In the Cottonwood Creek EMZ, status of completing long-term agreements with local landowners to establish, restore, and maintain riparian communities along 25 percent of the upper and 25 percent of the lower reaches of Cottonwood Creek,	ERP-97-N07	Jul-98	Nov-02	61,000	10,000	71,000	Graham Matthews and Associates	Graham Matthews		Cottonwood Creek Channel Restoration Planning	May contribute to milestone since the creek will have channel work. Patricia Bratcher, DFG. Conduct geomorphic analysis, hydrologic analysis and survey sites. Planning/ Implementation; project completed.
63	SAC	H			63 A. In the Cottonwood Creek EMZ, status of completing long-term agreements with local landowners to establish, restore, and maintain riparian communities along 25 percent of the upper and 25 percent of the lower reaches of Cottonwood Creek,	ERP-98-E05	Oct-98	Dec-01	161,000	0	161,000	Cottonwood Creek Watershed Group	Vieva Swearingen		Cottonwood Creek Watershed Group Formation	This project will: 1) Identify and organize the landowners to work with public land management agencies, interested parties and resource managers to form consensus on issues and their importance; 2) Coordinate with resource managers which have studied regional needs and correlate those studies with input from stakeholders; 3) Research previous studies within the Cottonwood Creek watershed. Contributes to the process of restoration, protection, and management of riparian and floodplain habitat in the Cottonwood Creek (EMZ). Patricia Bratcher, DFG. Implement watershed stewardship plan for Cottonwood Creek. Implementation; project completed.
63	SAC	H			63 A. In the Cottonwood Creek EMZ, status of completing long-term agreements with local landowners to establish, restore, and maintain riparian communities along 25 percent of the upper and 25 percent of the lower reaches of Cottonwood Creek,	ERP-00-E03	Oct-00	Dec-05	443,047	0	443,047	Cottonwood Creek Watershed Group	Vieva Swearingen		Cottonwood Creek Watershed Monitoring and Assessment	Continued management of the Cottonwood Creek Watershed Group (CCWG) to oversee the implementation of a watershed plan. This phase would assess current conditions in the watershed (930 sq miles), both as to the land and stream conditions to give a baseline for future projects. Patricia Bratcher, DFG. Monitoring and Assessment; project completed.

MS Number	REGION	Project Type	Milestone	ERP Targets taken from ERPP Vol 2	MS Components or Questions for field personnel	ERP PROJECT NUMBERS	CONTRACT		CALFED Award	Cost Share	Total Project Cost	Applicant	Principal Investigator	Quantifiable Units	Project Name	Comments
							START DATE	END DATE								
63	SAC	H			63 B. In Cottonwood Creek EMZ, status of the development of a comprehensive watershed management plan that supports local land use decisions to protect existing riparian and restore lost riparian.	ERP-00-E03	Oct-00	Dec-05	443,047	0	443,047	Cottonwood Creek Watershed Group	Vieva Swearingen		Cottonwood Creek Watershed Monitoring and Assessment	Continued management of the Cottonwood Creek Watershed Group (CCWG) to oversee the implementation of a watershed plan. This phase would assess current conditions in the watershed (930 sq miles), both as to the land and stream conditions to give a baseline for future projects. Patricia Bratcher, DFG. Monitoring and Assessment; project completed.
63	SAC	H			63 B. In Cottonwood Creek EMZ, status of the development of a comprehensive watershed management plan that supports local land use decisions to protect existing riparian and restore lost riparian.	ERP-98-E05	Oct-98	Dec-01	161,000	0	161,000	Cottonwood Creek Watershed Group	Vieva Swearingen		Cottonwood Creek Watershed Group Formation	This project will: 1) Identify and organize the landowners to work with public land management agencies, interested parties and resource managers to form consensus on issues and their importance; 2) Coordinate with resource managers which have studied regional needs and correlate those studies with input from stakeholders; 3) Research previous studies within the Cottonwood Creek watershed. Contributes to the process of restoration, protection, and management of riparian and floodplain habitat in the Cottonwood Creek (EMZ). Patricia Bratcher, DFG. Implement watershed stewardship plan for Cottonwood Creek. Implementation; project completed.
63	SAC	H			63 B. In Cottonwood Creek EMZ, status of the development of a comprehensive watershed management plan that supports local land use decisions to protect existing riparian and restore lost riparian.	WSP-02-FP-214			200,000		200,000	Cottonwood Creek Watershed Group	Vieva Swearingen		Cottonwood Creek Watershed Management Plan	Project will develop a Watershed Management Strategy through stakeholder workshops that will eventually lead to a management plan. Several watershed issues will be addressed including riparian protection and enhancement.
63	SAC	H			63 B. In Cottonwood Creek EMZ, status of the development of a comprehensive watershed management plan that supports local land use decisions to protect existing riparian and restore lost riparian.	ERP-01-N28	Oct-01	Oct-04	541,747	0	541,747	CDWR	Burt Bundy		Sacramento River Conservation Area Program	The project involves hiring a manager and office staff for a three-year period to assist in the development and implementation of site-specific plans for areas within the Sacramento River Riparian Conservation Area, and to manage a new nonprofit riparian land management entity that will coordinate activities and continue the process of building broader support and understanding of the goals of the SB 1086 program. Burt Bundy, Sacramento River Conservation Area Forum. Planning; project completed. The project provided funding to continue the efforts of the Sacramento River Conservation Area Program to act as a coordinating body between local, state, and federal agencies regarding restoration activities in the Sacramento River watershed.
63	SAC	H			63 B. In Cottonwood Creek EMZ, status of the development of a comprehensive watershed management plan that supports local land use decisions to protect existing riparian and restore lost riparian.	ERP-97-N07	Jul-98	Nov-02	61,000	10,000	71,000	Graham Matthews and Associates	Graham Matthews		Cottonwood Creek Channel Restoration Planning	May contribute to milestone since the creek will have channel work. Patricia Bratcher, DFG. Conduct geomorphic analysis, hydrologic analysis and survey sites. Planning/ Implementation; project completed.

MULTI SPECIES CONSERVATION STRATEGY MILESTONE 64 -- ROLLED UP SUMMARY

<p>MILESTONE 64 -- Restore 2 miles of the 10 mile target of riparian habitat restoration along the lower reaches of each of the following tributaries: Battle, Clear, Deer, Mill, Butte, Big Chico, Antelope, Feather, Yuba, and Bear Rivers.</p>		<p>PROJECTS REVIEWED - ERP-95-M01, ERP-96-M12, ERP-96-M25, ERP-97-E01, ERP-97-E02, ERP-97-N08, ERP-98-E06, ERP-98-E15, ERP-98-F01, ERP-98-F03, ERP-98-F04, ERP-98-F15, ERP-98-F20, ERP-98-F24, ERP-99-B01, ERP-99-B09, ERP-99-B12, ERP-99-N17, ERP-01-N28, ERP-02-P16D, ERP-02D-P53, ERP-02-P26, AFRP-01-10, IMM, 02-I01,</p>	<p>WSP-01-FP-049, AFRP-00-02, AFRP-00-10, AFRP-00-14, AFRP-00-15, AFRP-00-16, AFRP-00-17</p>	<p>SUMMARY -- Several ERP and AFRP contracts and funds from other sources have been used for riparian habitat restoration planning and implementation on Battle, Clear, Deer, Mill, Butte, Big Chico Creeks, and the Yuba River. Two miles are currently being restored on Battle Creek. Approximately 1 mile has been restored on Butte Creek. There has only been planning for riparian habitat restoration on Clear Creek, Big Chico Creek and Yuba Rivers. There are projects under way to acquire property for restoration of 2 miles on both Deer and Mill Creeks. No projects have addressed riparian habitat restoration on the lower reaches of Antelope Creek, Bear River, or the Feather River.</p>			<p>AGENCY NOTES --</p>	<p>NOTES CONT'D --</p>
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MULTI SPECIES CONSERVATION STRATEGY MILESTONE 64 -- EVALUATION OF INDIVIDUAL PROJECTS REVIEWED TO FORMULATE THE ROLLED UP SUMMARY

MS Number	REGION	Project Type	Milestone	ERP Targets taken from ERPP Vol 2	MS Components or Questions for field personnel	ERP PROJECT NUMBERS	CONTRACT		CALFED Award	Cost Share	Total Project Cost	Applicant	Principal Investigator	Quantifiable Units	Project Name	Comments
							START DATE	END DATE								
64	SAC	H	Restore 2 miles of the 10 mile target of riparian habitat restoration along the lower reaches of each of the following tributaries: Battle, Clear, Deer, Mill, Butte, Big Chico, Antelope, Feather, Yuba, and Bear Rivers.		64 A. Status of restoring 2 miles of riparian habitat along the lower reaches of Battle Creek	ERP-95-M01				500,000	500,000	John (PGE) , Harry (DFG)	John Sandoffner, Harry Rectenwald		Battle Creek Interim Flow Restoration	Restoration of riparian habitat. Implementation; 50 percent complete. Ongoing due to amendments. Restore 2 miles of riparian habitat.
64	SAC	H			64 A. Status of restoring 2 miles of riparian habitat along the lower reaches of Battle Creek	ERP-96-M12	Jul-97	Apr-99	306,000	reduced 76,000	230,000	CDFG	Harry Rectenwald		Battle Creek Chinook Salmon and Steelhead Restoration Study	Restore and maintain riparian habitat. Planning; project completed.
64	SAC	H			64 A. Status of restoring 2 miles of riparian habitat along the lower reaches of Battle Creek	ERP-96-M25	May-97	Oct-99	50,000	50,000	100,000	Western Shasta Resource Conservation District	Richard Baumann		Battle Creek Watershed Management Strategy Project	Planning / Education; project completed. Harry Rectenwald,DFG.
64	SAC	H			64 A. Status of restoring 2 miles of riparian habitat along the lower reaches of Battle Creek	ERP-98-E06	Jan-98	Dec-99	145,000	0	145,000	Battle Creek Watershed Conservancy	Donald Holtgrieve		Battle Creek Watershed Stewardship	This project will evaluate and develop a watershed plan for Battle Creek. Contributes to the process of restoration, protection, and management of riparian and floodplain habitat in the North Sacramento Valley (EMZ). Education / Instruction; project completed. Harry Rectenwald, DFG
64	SAC	H			64 A. Status of restoring 2 miles of riparian habitat along the lower reaches of Battle Creek	ERP-99-B12	3/31/00	4/30/03	2,175,000	0	2,175,000	BLM	Charles Schultz	10 miles	Riparian Corridor Acquisition and Restoration Assessment	Project will establish a conservation easement acquisition on the Gover Ranch, and conduct geomorphic studies of a reach of the Sacramento River. Some of the land will be covered by an agricultural easement. 1412 acres. Harry Rectenwald, DFG. Implementation; project completed. Acquired a conservation easement of 1412 acres and protected 10 miles of riparian habitat on Battle Creek.

MS Number	REGION	Project Type	Milestone	ERP Targets taken from ERPP Vol 2	MS Components or Questions for field personnel	ERP PROJECT NUMBERS	CONTRACT		CALFED Award	Cost Share	Total Project Cost	Applicant	Principal Investigator	Quantifiable Units	Project Name	Comments
							START DATE	END DATE								
64	SAC	H			64 A. Status of restoring 2 miles of riparian habitat along the lower reaches of Battle Creek	IMM-02-I01	Mar-03		2,206,625	0	2,206,625	The Nature Conservancy	Jake Jacobson		Battle Creek Protection and Stewardship	One of the project goals is to protect long-term sustainability of freshwater fish habitat that supports various life cycle stages of Pacific lamprey, chinook salmon and steelhead trout by purchasing conservation easements on over 6,800 acres of habitat lands. Project not completed, still negotiating on properties. One property may close in fall. Acquisition.
64	SAC	H			64 A. Status of restoring 2 miles of riparian habitat along the lower reaches of Battle Creek	AFRP-01-10	2000 ?	9/30/02 ?	299,606 ?	75,000	224,606	Battle Creek Watershed Conservancy (BCWC)	Sharon Paquin-Gilmore, Watershed Coordinator		Battle Creek Watershed Stewardship, Phase 2	BCWC proposes a project to do all of the following: 1) Complete an assessment of watershed conditions in the upper watershed and in the lands lying immediately upland of Battle Creek's Restoration Project reaches. 2) Implement, in close cooperation with the resource agencies and local schools, a watershed information system to support Restoration Project monitoring, assessment, and adaptive management. 3) Sustain implementation of the Battle Creek Watershed Strategy, through work in the schools and communities, with agencies and landowners, toward the complementary objectives of safeguarding the Battle Creek watershed's lightly-populated, agricultural lifestyle and protecting the public investment in the Battle Creek Salmon and Steelhead Restoration Project. Harry Rectenwald, DFG. Planning / Implementation; 50 percent complete. Project is ongoing. Watershed strategy is complete. Conservation easement planning is complete. Implement an information system for watershed.
64	SAC	H			64 A. Status of restoring 2 miles of riparian habitat along the lower reaches of Battle Creek	ERP-01-N28	Oct-01	Oct-04	541,747	0	541,747	CDWR	Burt Bundy		Sacramento River Conservation Area Program	The project involves hiring a manager and office staff for a three-year period to assist in the development and implementation of site-specific plans for areas within the Sacramento River Riparian Conservation Area, and to manage a new nonprofit riparian land management entity that will coordinate activities and continue the process of building broader support and understanding of the goals of the SB 1086 program. Burt Bundy, Sacramento River Conservation Area Forum. Planning; project completed. The project provided funding to continue the efforts of the Sacramento River Conservation Area Program to act as a coordinating body between local, state, and federal agencies regarding restoration activities in the Sacramento River watershed.
64	SAC	H			64 A. Status of restoring 2 miles of riparian habitat along the lower reaches of Battle Creek	AFRP-00-10		Mar-02	421,700	310,000	731,700	AFRP	Tricia Parker USFWS	2.5 miles	Acquire a conservation easement on the Eagle Canyon Ranch (Pelton property) at the confluence of Digger Creek and the North Fork of Battle Creek	This project will fund the purchase of a conservation easement on approximately 990 acres along Digger Creek and the North Fork of Battle Creek. The Eagle Canyon Ranch (Pelton property) begins at the confluence of the North Fork and Digger Creek and includes approximately 2.5 miles of frontage on the south side of the North Fork and riparian water rights on Digger Creek. The Eagle Canyon Ranch (Pelton property) had previously been used as a sheep ranch, although new owners have reintroduced cattle. By purchasing a conservation easement on the property, The Nature Conservancy intends to protect a significant portion of winter-run and spring-run Chinook salmon spawning habitat in the North Fork from land use conversion and loss of riparian vegetation. Digger Creek also provides an additional source of cool waters for the North Fork. Project completed on 3/18/02
64	SAC	H			64 A. Status of restoring 2 miles of riparian habitat along the lower reaches of Battle Creek	ERP-99-B01	Feb-99	Apr-01	26,958,100	23,550,900	50,509,000	DFG and USBR	Harry Rectenwald or Mike Ryan		Battle Creek Salmon and Steelhead Restoration Project	Restore habitat along lower reaches of creeks, 2 miles. Planning and Design; 90 percent complete.
64	SAC	H			64 B. Status of restoring 2 miles of riparian habitat along the lower reaches of Clear Creek	ERP-98-E15	Oct-98	May-01	23,828	0	23,828	Sacramento Watersheds Action Group	John McCullah		Sulphur Creek Coordinated Watershed Management Plan Group	Sulphur Creek CRMP will distribute the Watershed Analysis, develop community-based restoration objectives, pursue funding to implement projects identified in the Watershed Analysis, and enhance public awareness and education in fisheries and watershed issues. May contribute to various habitat restoration, protection, and management milestones for the North Sacramento Valley (EMZ), Clear Creek (EMU). John McCullah, Sacramento Watersheds Action Group. Planning / Education. Project completed.

MS Number	REGION	Project Type	Milestone	ERP Targets taken from ERPP Vol 2	MS Components or Questions for field personnel	ERP PROJECT NUMBERS	CONTRACT		CALFED Award	Cost Share	Total Project Cost	Applicant	Principal Investigator	Quantifiable Units	Project Name	Comments
							START DATE	END DATE								
64	SAC	H			64 B. Status of restoring 2 miles of riparian habitat along the lower reaches of Clear Creek	ERP-98-F15	Apr-99	Sep-01	3,599,596	500,000	4,099,596	Western Shasta Resource Conservation District	Jeff Souza	3 miles	Lower Clear Creek Floodway Restoration Project	Phase II restoration activities: 1. Develop design documents for Phase 2 through 4. 2. Prepare CEQA/NEPA documents and environmental permits for Phase 2. 3. Recreate functional floodplain in the Mined Reach and the Reading Bar Ranch. 4. Mitigate wetland loss by creating off-channel wetlands at the Reading Bar Reach. 5. Reduce or eliminate juvenile and adult salmonid stranding by filling historic instream aggregate extraction pits to functional floodplain. 6. Restore riparian vegetation on reconstructed floodplain surfaces. 7. Remove exotic vegetation from Mined Reach and the Reading Bar Reach. 8. Develop and implement biological, geographic, and riparian monitoring plan. Mary Shroeder, Western Shasta Resource Conservation District. Planning / Implementation; project completed. Restore 3 miles (in 2 reaches) of stream channel and floodplain on public lands along Clear Creek
64	SAC	H			64 C. Status of restoring 2 miles of riparian habitat along the lower reaches of Deer Creek	ERP-97-E02	Jan-98	Dec-99	199,554	0	199,554	California State University, Chico	Donald Holtgrieve		Deer Creek Watershed Management/Implementation Program	This project will evaluate and develop a watershed plan for Deer Creek. Tasks include assessment of existing conditions, modeling of flow and sediment transport, identification of issues and conflicts, and the development of a watershed management strategy. Contributes to the process of restoration, protection, and management of riparian and floodplain habitat in the Butte Basin (EMZ). Patricia Bratcher,DFG. Implement water management strategy and water quality program. Implementation; project completed.
64	SAC	H			64 C. Status of restoring 2 miles of riparian habitat along the lower reaches of Deer Creek	ERP-98-F20	Aug-99	Dec-02	1,000,000	0	1,000,000	The Nature Conservancy	Peggy McNutt		Deer and Mill Creek Acquisition and Enhancement	Project will identify willing sellers, complete appraisals, and acquire at least one parcel. Jake Jacobsen, The Nature Conservancy. Implementation; 35 percent complete. Some land has been purchased. Acquire and restore 2,500 acres for a conservation easement on Deer and Mill Creeks. WCB and Packard Foundation will help fund this project.
64	SAC	H			64 C. Status of restoring 2 miles of riparian habitat along the lower reaches of Deer Creek	ERP-02D-P53	Sep-03	Sep-05	1,519,200	0	1,519,200	Deer Creek Watershed Conservancy	Bill Berens		Lower Deer Creek Restoration and Flood Management: Feasibility Study and Conceptual Design	Project will restore connection to the floodplain and expand riparian habitat to the maximum extent possible in the Deer Creek area. ~10 miles. Viewa Swearingen; Deer Creek Watershed Conservancy. Planning and Design; project just started. (7 percent complete).
64	SAC	H			64 C. Status of restoring 2 miles of riparian habitat along the lower reaches of Deer Creek	WSP-01-FP-049	Jun-02	Jun-04	212,000	unknown		Deer Creek Watershed Conservancy	Bill Berens, President		Deer Creek Watershed Conservancy Rangeland and Riparian Management Program	Restore 2 miles of the 10 mile target of riparian habitat along the lower reaches of each of the following tributaries: Battle, Clear, Deer, Mill, Butte, Big Chico, Antelope, Feather, Yuba, and Bear Rivers. Project will contribute to the protection of riparian on Deer Ck. through the development and implementation of individual ranch plans which may include fencing of the riparian areas on each ranch.
64	SAC	H			64 C. Status of restoring 2 miles of riparian habitat along the lower reaches of Deer Creek	AFRP-00-02			69,000		69,000	AFRP	Tricia Parker USFWS	2.7 miles riparian habitat	Protect riparian habitat on the Leininger property on Deer Creek	Objective: Exclude cattle year-round from the riparian zone to protect existing or recently planted riparian vegetation from grazing and trampling. Contract completed 8/2000 between FWS (AFRP) and The Nature Conservancy.
64	SAC	H			64 C. Status of restoring 2 miles of riparian habitat along the lower reaches of Deer Creek	ERP-02-P26			4,700,000	0	4,700,000	The Nature Conservancy	Jake Jacobson		Mill and Deer Creeks Protection and Stewardship	Restore ~2 miles of riparian habitat along the lower reaches of Deer Creek. Acquisition; project not complete, 1 property will close in June.
64	SAC	H			64 D. Status of restoring 2 miles of riparian habitat along the lower reaches of Mill Creek	ERP-02-P26			4,700,000	0	4,700,000	The Nature Conservancy	Jake Jacobson		Mill and Deer Creeks Protection and Stewardship	Restore ~2 miles of riparian habitat along the lower reaches of Deer Creek. Acquisition; project not complete, 1 property will close in June.

MS Number	REGION	Project Type	Milestone	ERP Targets taken from ERPP Vol 2	MS Components or Questions for field personnel	ERP PROJECT NUMBERS	CONTRACT		CALFED Award	Cost Share	Total Project Cost	Applicant	Principal Investigator	Quantifiable Units	Project Name	Comments
							START DATE	END DATE								
64	SAC	H			64 D. Status of restoring 2 miles of riparian habitat along the lower reaches of Mill Creek	ERP-98-F20	Aug-99	Dec-02	1,000,000	0	1,000,000	The Nature Conservancy	Peggy McNutt		Deer and Mill Creek Acquisition and Enhancement	Project will identify willing sellers, complete appraisals, and acquire at least one parcel. Jake Jacobsen, The Nature Conservancy, Implementation; 35 percent complete. Some land has been purchased. Acquire and restore 2,500 acres for a conservation easement on Deer and Mill Creeks.
64	SAC	H			64 D. Status of restoring 2 miles of riparian habitat along the lower reaches of Mill Creek	ERP-97-N08	Jul-98	Jun-01	69,000	169,000	238,000	The Nature Conservancy	Sue Hubbard; Meghan Mazzoni		Lower Mill Creek Riparian Restoration	The project will restore and enhance native riparian vegetation on one or more parcels along Lower Mill Creek. The project focuses on one of the identified gaps in existing riparian habitat near the confluence with the Sacramento River and will contribute toward the long-range goal of restoring a continuous corridor of native riparian vegetation. Wendi Duron, The Nature Conservancy, Implementation. Project completed.
64	SAC	H			64 D. Status of restoring 2 miles of riparian habitat along the lower reaches of Mill Creek	ERP-98-F04					238,000	The Nature Conservancy	Sue Hubbard; Meghan Mazzoni	1 mile	Lower Mill Creek Riparian Restoration	The project will restore and enhance native riparian vegetation on one or more parcels along lower Mill Creek. The project focuses on one of the identified gaps in existing riparian habitat near the confluence with the Sacramento River and will contribute toward the long-range goal of restoring a continuous corridor of native riparian vegetation. Wendi Duron, The Nature Conservancy, Implementation. Project completed.
64	SAC	H			64 E. Status of restoring 2 miles of riparian habitat along the lower reaches of Butte Creek	ERP-98-F03	Sep-99	n/a	125,000	422,068	547,068	CSU Chico	Donald Holtgrieve, Dept of Geography and Planning; Laura Lukes Project Manager		Butte Creek Acquisition and Riparian Restoration	This contract is for matching funds only towards purchase of 80+ acre McAmis Property with approximately 4000 ft of creek frontage. This restoration project will develop methods of channel and floodplain management, and development of a riparian corridor. Paul Ward, DFG. Purchase 80 acres; 4,000 feet of creek footage along Butte Creek. Implementation; project completed.
64	SAC	H			64 E. Status of restoring 2 miles of riparian habitat along the lower reaches of Butte Creek	ERP-98-F24	Dec-98	Sep-00	76,348	0	76,348	CSU Chico	Donald Holtgrieve, Dept of Geography and Planning.		Butte Creek Riparian Restoration Demonstration	This project will establish riparian restoration (Task 2a). Paul Ward, DFG. Close off all unauthorized vehicle access and monitor water quality, revegetation areas and wildlife populations. Implementation; project completed. The Packard Foundation funded a spring -run chinook salmon project.
64	SAC	H			64 E. Status of restoring 2 miles of riparian habitat along the lower reaches of Butte Creek	ERP-98-F01	Sep-98	Dec-01	302,745	0	302,745	CSU Chico	Donald Holtgrieve		The Butte Creek Watershed Educational Workshops and Field Tours Series	Contributes to restoration efforts along Butte Creek. The project tasks: 1) Hire the Butte Creek Watershed Coordinator Assistant; 2) Develop the Butte Creek Watershed Education Project; 3) Conduct Butte Creek Watershed Road Survey (identifying sediment problems); 4) Implement the Riparian Education and Geomorphology Analysis of Butte Creek. Paul Ward, DFG. Conduct a road survey that monitors erosion and sedimentation. Train field personnel and maintain data base. Implementation; project completed.
64	SAC	H			64 E. Status of restoring 2 miles of riparian habitat along the lower reaches of Butte Creek	AFRP-00-17			59,083		59,083	AFRP	John Icanberry USFWS	.2 miles of riparian enhancement	Promote re-vegetation of recently rip-rapped areas in the vicinity of Okie Dam on Butte Creek	Objective: Revegetate extensive areas of rip-rap, coordinate a pilot study investigating a methodology for establishing riparian vegetation on cobble fields, and develop a comprehensive restoration plan for the entire 4-mile reach of Butte Creek. The proposal will be carried out in 3 phases: 1) revegetate a 1,000 foot section of rip-rap; 2) coordinate a pilot study investigating a methodology for establishing riparian vegetation on cobble fields to be coordinated by a restoration ecologist; and 3) develop a comprehensive restoration plan for the entire 4-mile reach of Butte Creek utilizing information derived from the cobble field revegetation pilot study. Contract completed 9/2000 between FWS (AFRP) and Chico State University, Chico Research Foundation.

MS Number	REGION	Project Type	Milestone	ERP Targets taken from ERPP Vol 2	MS Components or Questions for field personnel	ERP PROJECT NUMBERS	CONTRACT		CALFED Award	Cost Share	Total Project Cost	Applicant	Principal Investigator	Quantifiable Units	Project Name	Comments
							START DATE	END DATE								
64	SAC	H			64 F. Status of restoring 2 miles of riparian habitat along the lower reaches of Big Chico Creek	ERP-02-P16-D			2,603,377		2,603,377	The Nature Conservancy	Sam Lawson		Restoration of the Confluence Area of the Sacramento River, Big Chico and Mud Creeks	Protect and restore 311 acres of flood-prone land located within the Sacramento River Conservation Area at the confluence of the Sacramento River, Big Chico and Mud Creeks at river miles 194-195. Cathy Morris, The Nature Conservancy. Acquisition; just beginning.
64	SAC	H			64 F. Status of restoring 2 miles of riparian habitat along the lower reaches of Big Chico Creek	AFRP-00-14			500,000	3,200,000	3,700,000	AFRP	John Icanberry USFWS		Acquire Simmons Ranch on Big Chico Creek	This project seeks the initial funding to acquire a 2,724-acre site in the Big Chico Creek watershed known as the Simmon's Ranch. Big Chico Creek is one of only four streams in the Sacramento Valley that provide habitat for a wild, persistent population of spring run salmon. The Simmon's Ranch acquisition would protect 2.5 miles or half of the spring-run holding habitat on Big Chico Creek. During the week of August 7, 2000, The River Conservancy, a program of River Network, an Oregon-based conservation group, closed the purchase of this property from private owners, and at the same time sold it to the University's Research Foundation. The Foundation will own and manage the ranch as a nature preserve that will provide educational and research opportunities for students.
64	SAC	H			64 F. Status of restoring 2 miles of riparian habitat along the lower reaches of Big Chico Creek	AFRP-00-15						AFRP	John Icanberry USFWS		Acquire the Nock property on Big Chico Creek	The Nock property is 125.2 acres located at the confluence of Mud and Big Chico Creeks near the Sacramento River in Butte County, Ca. The protection and restoration of the Nock property will help create more complex and continuous shoreline vegetation, increase available woody debris, and broaden the riparian buffer providing improved refugia for juvenile fish. The anticipated long term ecological benefits of the proposed project are to help protect and facilitate enhancement of the meanderbelt and associated floodplain of the Sacramento River. Objective: Conduct baseline biological and environmental surveys, implement interim restoration and start up stewardship actions and develop a long term restoration and management plan prior to acquisition by The Nature Conservancy. Status: Likely for funding in FY2000.
64	SAC	H			64 F. Status of restoring 2 miles of riparian habitat along the lower reaches of Big Chico Creek	AFRP-00-16			50,000	250,000	300,000	AFRP	John Icanberry USFWS		Acquire the Singh property of Big Chico Creek	The Singh property is 40.4 acres located west of Mud Creek, north of the Bidwell-Sacramento River State Park and adjacent to the Sacramento River in Butte County, Ca. Objective: Conduct baseline biological and environmental surveys, implement interim restoration and start up stewardship actions and develop a long term restoration and management plan prior to acquisition by The Nature Conservancy. Contract was signed 8/2000 between FWS (AFRP) and The Nature Conservancy. TNC staff, Ayres Associates and CSU Chico personnel under contract to TNC are proceeding with data collection, a baseline assessment, and hydraulic modeling of the general area of the Singh, Mendonca, and Nicolas tracts between Mud Creek and the Sacramento River, and the Nock tract between Mud Creek and Big Chico Creek. These studies are taking place and will be evaluated within the larger context of the Chico Landing Sub-Reach Study that TNC is conducting as a portion of its obligations under CalFed Grant # 97-NO2.
64	SAC	H			64 F. Status of restoring 2 miles of riparian habitat along the lower reaches of Big Chico Creek	ERP-97-E01	Mar-98	Jun-99	422,830	0	422,830	Big Chico Creek Watershed Alliance	Joe Karkoski		Watershed Plan, Big Chico Creek	This project will evaluate and develop a watershed plan for Big Chico Creek. Tasks include assessment of existing conditions, modeling of flow and sediment transport, identification of issues and conflicts, and the development of a watershed management strategy. Contributes to the process of restoration, protection, and management of riparian and floodplain habitat in the Butte Basin (EMZ). Paul Ward; DFG. Planning; project completed. AFRP and DWR funded the design of the fish ladders.

MULTI SPECIES CONSERVATION STRATEGY MILESTONE 65 -- ROLLED UP SUMMARY

<p>MILESTONE 65 -- Implement 25 percent of the ERP target for enhancing, protecting, and restoring seasonal wetlands in the following EMZs: American River Basin, Butte Basin, Colusa Basin, and Feather River/Sutter Basin.</p>		<p>PROJECTS REVIEWED - ERP-96-M24, ERP-97-N05, ERP-99-B27</p>		<p>SUMMARY -- Three ERP contracts address seasonal wetlands as an ancillary activity to their overall restoration or watershed plan or as a demonstration and training component of their overall program. It appears that a concerted effort should focus on seasonal wetland conservation and that these efforts be allocated over the prescribed basins in the Sacramento River Basin.</p>			<p>AGENCY NOTES --</p>	<p>NOTES CONT'D --</p>
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MULTI SPECIES CONSERVATION STRATEGY MILESTONE 65 -- EVALUATION OF INDIVIDUAL PROJECTS REVIEWED TO FORMULATE THE ROLLED UP SUMMARY

MS Number	REGION	Project Type	Milestone	ERP Targets taken from ERPP Vol 2	MS Components or Questions for field personnel	ERP PROJECT NUMBERS	CONTRACT		CALFED Award	Cost Share	Total Project Cost	Applicant	Principal Investigator	Quantifiable Units	Project Name	Comments
							START DATE	END DATE								
65	SAC	H	Implement 25 percent of the ERP target for enhancing, protecting, and restoring seasonal wetlands in the following EMZs: American River Basin, Butte Basin, Colusa Basin, and Feather River/Sutter Basin.	American River EMZ: Protect and enhance 5,150 acres of seasonal wetland habitat acreage consistent with the objectives of the Central Valley Habitat Joint Venture and the North American Waterfowl Management Plan	65 A. Status in the American River EMZ of the protection and enhancement of 1200 acres of seasonal wetland habitat acreage consistent with the objectives of the Central Valley Habitat Joint Venture and the North American Waterfowl Management Plan	ERP-97-N05	Mar-99	Jun-00	222,530	0	222,530	Placer County Planning Department	Loren Clark		Auburn Ravine/Coon Creek Restoration Planning	Develop a plan with major emphasis on protection and restoration of riparian and aquatic habitats. John Nelson, Department of Fish and Game. Planning; project completed.
65	SAC	H		Butte Basin: Assist in protecting 10,000 acres of existing seasonal wetland habitat through fee acquisition or perpetual easements consistent with the goals of the Central Valley Habitat Joint Venture and the North American Waterfowl Management Plan	65 B. Status in the Butte Basin: Assist of protecting 2,500 acres of existing seasonal wetland habitat through fee acquisition or perpetual easements consistent with the goals of the Central Valley Habitat Joint Venture and the North American Waterfowl Management Plan	ERP-96-M24	Mar-97	Apr-98	83,100	83,100	166,200	California State University Chico	Jeff Wright		Butte Creek Watershed Management Plan	Paul Ward, DFG. Project completed, Planning

MULTI SPECIES CONSERVATION STRATEGY MILESTONE 66 -- ROLLED UP SUMMARY

<p>MILESTONE 66 -- Develop and implement a program to address inadequate instream flows for steelhead and Chinook salmon on streams within Sacramento River Basin tributaries. Where appropriate provide adequate flows for Sacramento splittail and green sturgeon.</p>		<p>PROJECTS REVIEWED - ERP-96-M25, ERP-97-N05, ERP-98-C19, ERP-98-E05, ERP-98-E15, ERP-99-B01, ERP-99-B27, ERP-99-N14, ERP-99-N21, ERP-00-E03, ERP-01-C02, ERP-02-P13, ERP-02-P47, AFRP-00-20, AFRP-01-01, AFRP-02-09, AFRP-03-01</p>		<p>SUMMARY -- Several ERP and AFRP contracts have addressed some aspects of instream flow inadequacies for various Sacramento River Basin tributaries. Although some of these contracts may result in individual watershed plans, it is unclear whether a comprehensive program needs to be developed to address inadequate instream flow, or whether individual plans are adequate. The specific needs of Sacramento splittail and green sturgeon are coincidental in most cases, relative to instream flow inadequacies.</p>			<p>AGENCY NOTES --</p>	<p>NOTES CONT'D --</p>
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MULTI SPECIES CONSERVATION STRATEGY MILESTONE 66 -- EVALUATION OF INDIVIDUAL PROJECTS REVIEWED TO FORMULATE THE ROLLED UP SUMMARY

MS Number	REGION	Project Type	Milestone	ERP Targets taken from ERPP Vol 2	MS Components or Questions for field personnel	ERP PROJECT NUMBERS	CONTRACT		CALFED Award	Cost Share	Total Project Cost	Applicant	Principal Investigator	Quantifiable Units	Project Name	Comments
							START DATE	END DATE								
66	SAC	SR	Develop and implement a program to address inadequate instream flows for steelhead and Chinook salmon on streams within Sacramento River Basin tributaries. Where appropriate provide adequate flows for Sacramento split tail and green sturgeon.		66A. Status of a program to address the inadequate instream flows for steelhead and Chinook salmon in the North Sacramento Valley EMZ (Clear Creek, Cow Creek, Bear Creek, Battle Creek)	ERP-96-M25	May-97	Oct-99	50,000	50,000	100,000	Western Shasta Resource Conservation District	Richard Baumann		Battle Creek Watershed Management Strategy Project	<i>Planning / Education; project completed. Harry Rectenwald, DFG</i>
66	SAC	SR			66A. Status of a program to address the inadequate instream flows for steelhead and Chinook salmon in the North Sacramento Valley EMZ (Clear Creek, Cow Creek, Bear Creek, Battle Creek)	ERP-99-B01	Feb-99	Apr-01	26,958,100	23,550,900	50,509,000	DFG and USBR	Harry Rectenwald or Mike Ryan		Battle Creek Salmon and Steelhead Restoration Project	Improve streamflow and remove fish passage barriers. <i>Planning and Design; 90 percent complete.</i>
66	SAC	SR			66 B. Status of a program to address the inadequate instream flows for steelhead and Chinook salmon in the Cottonwood Creek EMZ (Upper cottonwood Creek, Lower Cottonwood Creek)	ERP-98-E05	Oct-98	Dec-01	161,000	0	161,000	Cottonwood Creek Watershed Group	Vieva Swearingen		Cottonwood Creek Watershed Group Formation	This project will: 1) Identify and organize the landowners to work with public land management agencies, interested parties and resource managers to form consensus on issues and their importance; 2) Coordinate with resources managers which have studied regional needs and correlate those studies with input from stakeholders; 3) Research previous studies within the Cottonwood Creek watershed. Contributes to the process of restoration, protection, and management of riparian and floodplain habitat in the Cottonwood Creek (EMZ). <i>Patricia Bratcher, DFG. Implement watershed stewardship plan for Cottonwood Creek. Implementation; project completed.</i>

MS Number	REGION	Project Type	Milestone	ERP Targets taken from ERPP Vol 2	MS Components or Questions for field personnel	ERP PROJECT NUMBERS	CONTRACT		CALFED Award	Cost Share	Total Project Cost	Applicant	Principal Investigator	Quantifiable Units	Project Name	Comments
							START DATE	END DATE								
66	SAC	SR			66 B. Status of a program to address the inadequate instream flows for steelhead and Chinook salmon in the Cottonwood Creek EMZ (Upper cottonwood Creek, Lower Cottonwood Creek)	ERP-98-E15	Oct-98	May-01	23,828	0	23,828	Sacramento Watersheds Action Group	John McCullah		Sulphur Creek Coordinated Watershed Management Plan Group	Sulphur Creek CRMP will distribute the Watershed Analysis, develop community-based restoration objectives, pursue funding to implement projects identified in the Watershed Analysis, and enhance public awareness and education in fisheries and watershed issues. May contribute to various habitat restoration, protection, and management milestones for the North Sacramento Valley (EMZ), Clear Creek (EMU). John McCullah, Sacramento Watersheds Action Group. Planning / Education. Project completed.
66	SAC	SR			66 B. Status of a program to address the inadequate instream flows for steelhead and Chinook salmon in the Cottonwood Creek EMZ (Upper cottonwood Creek, Lower Cottonwood Creek)	ERP-00-E03	Oct-00	Dec-05	443,047	0	443,047	Cottonwood Creek Watershed Group	Vieva Swearingen		Cottonwood Creek Watershed Monitoring and Assessment	Continued management of the Cottonwood Creek Watershed Group (CCWG) to oversee the implementation of a watershed plan. This phase would assess current conditions in the watershed (930 sq miles), both as to the land and stream conditions to give a baseline for future projects. Patricia Bratcher, DFG. Monitoring and Assessment; project completed.
66	SAC	SR			66 C. Status of a program to address the inadequate instream flows for steelhead and Chinook salmon in the Colusa Basin EMZ (Stoney Creek, Elder Creek, Thomes Creek, Colusa Basin)	ERP-99-N14	Jun-01	May-04	492,500	191,000	683,500	Colusa Resource Conservation District	Christopher Rose		Colusa Basin Watershed Project	Contributes to monitoring and restoration efforts along the Colusa Basin (600,000 acres). The Colusa Basin Drain Watershed project will serve as a project that assists private landowners in addressing non-point source pollution, flood control issues, exotic invasive weeds, and reactivating important ecological processes and functions of riparian corridors. The project will consist of 6 to 12 selected sites, which will implement riparian enhancement and other restoration practices. Patti A. Turner, Colusa County Resource Conservation District. Implementation; 75 percent complete. Six sites are done. Monitoring and restoration of 600,000 acres.
66	SAC	SR			66D. Status of a program to address the inadequate instream flows for steelhead and Chinook salmon in the Butte Basin EMZ (Paynes Creek, Antelope Creek, Mill Creek, Deer Creek, Big Chico Creek, Butte Creek, Butte Sink)	ERP-01-C02	Oct-01	Sep-04	418,700	0	418,700	CDWR	John Clements		Real-Time Flow Monitoring	Project provides for the continued operation and maintenance of 18 stream gauging stations and associated telemetry equipment for a three-year period. Paul Ward, DFG. Install 18 flow meters on Mill, Deer, Big Chico and Butte creeks. Implementation; project completed.
66	SAC	SR			66D. Status of a program to address the inadequate instream flows for steelhead and Chinook salmon in the Butte Basin EMZ (Paynes Creek, Antelope Creek, Mill Creek, Deer Creek, Big Chico Creek, Butte Creek, Butte Sink)	AFRP-00-20						AFRP	John Icanberry USFWS		Develop recommendations for enhanced fish passage in the Butte Slough area on lower Butte Creek	Objective: Within the Butte Slough Sub-area, reduce or eliminate delay and injury to Butte Creek adult salmon and steelhead and reduce or eliminate entrainment of juvenile Butte Creek and Sacramento River salmon and steelhead and other listed fish species under controlled-flow conditions while maintaining the viability of associated managed wetlands and agricultural operations. Contract between FWS (AFRP) and Ducks Unlimited, Inc. was signed 8/2000. Initial meetings were held with stakeholders to discuss methodology and process. MBK Engineering developed a list of pumping plants for the Butte Slough area with valid licenses and permits. Follow-up meeting were held with the stakeholders to discuss data gaps and biological and legal issues surrounding the project. A final list of pumping plant sites was reviewed and approved by the stakeholders in September 2002 and the sites were verified on the ground and located using GPS during October 2002. In addition, each site was photographed. A final report will be available in the spring of 2003.

MS Number	REGION	Project Type	Milestone	ERP Targets taken from ERPP Vol 2	MS Components or Questions for field personnel	ERP PROJECT NUMBERS	CONTRACT		CALFED Award	Cost Share	Total Project Cost	Applicant	Principal Investigator	Quantifiable Units	Project Name	Comments
							START DATE	END DATE								
66	SAC	SR			66D. Status of a program to address the inadequate instream flows for steelhead and Chinook salmon in the Butte Basin EMZ (Paynes Creek, Antelope Creek, Mill Creek, Deer Creek, Big Chico Creek, Butte Creek, Butte Sink)	ERP-99-B27	Oct-99	Mar-03	13,000	7,686	20,686	Colusa County Resource Conservation District	Patti Ann Turner		Watershed Educational Training	Contributes to monitoring and restoration efforts along the Colusa Basin. The Watershed Educational Training (WET) project revolves around the use of EnviroScape interactive watershed models to teach the importance of how the public's actions can have both positive and adverse effects on the watershed ecosystem. Patti A. Turner, Colusa County Resource Conservation District. Educational; project completed.
66	SAC	SR			66 E. Status of a program to address the inadequate instream flows for steelhead and Chinook salmon in the Feather River/Sutter Basin EMZ (Feather River, Yuba River)	ERP-01-C02	Oct-01	Sep-04	418,700	0	418,700	CDWR	John Clements		Real-Time Flow Monitoring	Project provides for the continued operation and maintenance of 18 stream gauging stations and associated telemetry equipment for a three-year period. Paul Ward, DFG. Install 18 flow meters on Mill, Deer, Big Chico and Butte creeks. Implementation; project completed.
66	SAC	SR			66 E. Status of a program to address the inadequate instream flows for steelhead and Chinook salmon in the Feather River/Sutter Basin EMZ (Feather River, Yuba River)	ERP-98-C19	Nov-98	Jun-99	7,333	0	7,333	USFWS	Carl Mesick		Conduct and Facilitate Meetings on the Upper Yuba River , Englebright Dam	Project addresses streamflow and erosion issues. Ike Lukenbill USFWS. Planning; project completed.
66	SAC	SR			66 E. Status of a program to address the inadequate instream flows for steelhead and Chinook salmon in the Feather River/Sutter Basin EMZ (Feather River, Yuba River)	AFRP-01-F01			299,606	109,568	409,174	Yuba County Water Agency	Curt Aikens		Narrows 2 Hydro Power Plant Flow Bypass System Design	The Narrows 2 powerplant on the Yuba River just downstream of Englebright Dam. Under existing conditions, anadromous fish in the lower Yuba River can be adversely affected by normal maintenance, emergency operations, and catastrophic failure of the Narrows 2 powerplant or PG&E transmission system. Potential impacts include stranding of juveniles, dewatering of redds, and thermal stress caused by increased river temperatures. Yuba County Water Agency is requesting funding for final engineering design work for a proposed flow bypass system for the Narrows 2 hydroelectric powerplant. The objective is to provide a means of maintaining uninterrupted releases from the Narrows 2 powerplant during temporary or sustained transmission or plant malfunctions for flows up to 3,000 cfs, and, thus, eliminate or substantially reduce flow fluctuations and associated biological impacts caused by scheduled and unscheduled outages of the Narrows 2 powerplant. DFG: Ian Drury; Project is 50% complete - working on designs and permits.
66	SAC	SR			66 E. Status of a program to address the inadequate instream flows for steelhead and Chinook salmon in the Feather River/Sutter Basin EMZ (Feather River, Yuba River)	ERP-02-P13	Oct-02	Sep-05	600,000	400,000	1,000,000	Hydrologic Research Center	Konstantine Georgakakos		INFORM - Integrated Forecast and Reservoir Management Demonstration for Northern California Water Resources	The purpose of this project is to demonstrate, as well as quantify, the improved efficiency of water management in California for hydropower production, water supply and flood control through implementation of an integrated management system for reservoir operation that incorporates global climate model forecasts. May contribute to temperature management problems. Konstantine Georgakakos, Hydrological Research Center; Planning/Research. Project is 20% complete.
66	SAC	SR			66 E. Status of a program to address the inadequate instream flows for steelhead and Chinook salmon in the Feather River/Sutter Basin EMZ (Feather River, Yuba River)	ERP-02-P47	Jul-03	Jun-06	4,280,600	0	4,280,600	Yuba County Water Agency	Curt Aikens		Narrows 2 Powerplant Flow Bypass System	Project will construct a 3,000-cfs bypass system to maintain stable releases and water temperatures in the lower Yuba River during emergency and maintenance shutdowns of the Narrows 2 Powerplant. This project will help better understand the effects of managed flow fluctuations on anadromous fish habitat below dams. John Nelson; DFG. Implementation. Construct a 3,000 cfs bypass system to maintain stable releases and water temperature on the Lower Yuba River. 50 percent complete. Construction in progress.

MS Number	REGION	Project Type	Milestone	ERP Targets taken from ERPP Vol 2	MS Components or Questions for field personnel	ERP PROJECT NUMBERS	CONTRACT		CALFED Award	Cost Share	Total Project Cost	Applicant	Principal Investigator	Quantifiable Units	Project Name	Comments
							START DATE	END DATE								
66	SAC	SR			66 E. Status of a program to address the inadequate instream flows for steelhead and Chinook salmon in the Feather River/Sutter Basin EMZ (Feather River, Yuba River)	AFRP-02-09						AFRP	Cesar Blanco USFWS		Lower Yuba River Juvenile Chinook Salmon Life History Evaluation - 2002	Objective: Better understand the life history, population trends, and thermal requirements of juvenile Chinook salmon in the Yuba River, to best improve the adaptive management, including actions such as fish restoration projects and providing appropriate in-stream flow regimes. Project is entering its second year of funding.
66	SAC	SR			66 E. Status of a program to address the inadequate instream flows for steelhead and Chinook salmon in the Feather River/Sutter Basin EMZ (Feather River, Yuba River)	AFRP-03-01						AFRP	Cesar Blanco USFWS		VAKI Riverwatcher Fish Monitoring System at Daguerre Point Dam	Objective: The objective is to purchase two (2) VAKI Riverwatcher fish counting systems with digital camera units in order to track and record fish movement through the fish ladders at Daguerre Point Dam. Systems were installed on the ladders at Daguerre Point Dam in July 2003. The solar systems used to power the VAKI units were not sufficient to provide reliable operation; hence PRAQUA, the sole distributor for the VAKI system in North America, provided additional solar panels at no cost in order to achieve reliable operation of the VAKI units. The additional solar panels should be in place by September 2003.
66	SAC	SR			66 F. Status of a program to address the inadequate instream flows for steelhead and Chinook salmon in the American River EMZ (American Basin, Lower American River)	ERP-97-N05	Mar-99	Jun-00	222,530	0	222,530	Placer County Planning Department	Loren Clark		Auburn Ravine/Coon Creek Restoration Planning	Develop a plan with major emphasis on protection and restoration of riparian and aquatic habitats. John Nelson, Department of Fish and Game. Planning; project completed. Dry Creek Conservancy, Dry Creek Watershed Coordinated Resource Management Plan.
66	SAC	SR			66 F. Status of a program to address the inadequate instream flows for steelhead and Chinook salmon in the American River EMZ (American Basin, Lower American River)	ERP-99-N21	Apr-01	Apr-02	250,000	550,000	800,000	Sacramento City-County Office of Metropolitan Water Planning (Water Forum)	Susan Davidson		Development of a River Corridor Management Plan for the Lower American River	The project tasks are: 1) Creates a consensus building process to resolve critical scientific issues, coordinator activities and plans among various agencies and stakeholder forums, and guide broad participation in the development of the River Corridor Management Plan (RCMP); 2) Identify fisheries and aquatic habitat restoration needs and priorities; 3) involve developing an integrated riparian vegetation and preventive erosion control program, a master plan for riparian and terrestrial habitats, and an infrastructure redesign and relocation program for the LAR. John Nelson, DFG. Planning. Project completed.

MULTI SPECIES CONSERVATION STRATEGY MILESTONE 67 -- ROLLED UP SUMMARY

<p>MILESTONE 67 -- Provide unimpeded upstream and downstream passage for salmon and steelhead on Sacramento River Basin tributaries.</p>		<p>PROJECTS REVIEWED - ERP-95-M02, ERP-95-M03, ERP-96-M01, ERP-96-M12, ERP-96-M21, ERP-96-M22, ERP-96-M25, ERP-97-M02, ERP-97-M03, ERP-97-M04, ERP-97-M05, ERP-97-N05, ERP-98-B03, ERP-98-B16, ERP-98-B21, ERP-98-B22, ERP-98-B24, ERP-98-B29, ERP-98-C19, ERP-98-E05, ERP-98-E15, ERP-98-N02, ERP-99-B01, ERP-99-B02, ERP-99-B03, ERP-99-B07, ERP-99-B08, ERP-99-B27, ERP-99-N01, ERP-00-E03, ERP-01-N16, ERP-01-N53, ERP-01-N54, ERP-01-N58, ERP-01-N60, ERP-02-CO1-D, ERP-02-P07, ERP-02-P09D, CVPIA-02-V02, IMM-02-I01, AFRP-00-20, AFRP-02-04, AFRP-02-05, AFRP-03-01</p>	<p>SUMMARY --Several ERP, AFRP, and CVPIA contracts and funds from other sources have addressed the planning, permitting, construction, and/or monitoring of projects designed to provide unimpeded fish passage up and downstream Sacramento River Basin Tributaries for salmon and steelhead.</p>		<p>AGENCY NOTES --</p>	<p>NOTES CONT'D --</p>
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MULTI SPECIES CONSERVATION STRATEGY MILESTONE 67 -- EVALUATION OF INDIVIDUAL PROJECTS REVIEWED TO FORMULATE THE ROLLED UP SUMMARY

MS Number	REGION	Project Type	Milestone	ERP Targets taken from ERPP Vol 2	MS Components or Questions for field personnel	ERP PROJECT NUMBERS	CONTRACT		CALFED Award	Cost Share	Total Project Cost	Applicant	Principal Investigator	Quantifiable Units	Project Name	Comments
							START DATE	END DATE								
67	SAC	SR	Provide unimpeded upstream and downstream passage for salmon and steelhead on Sacramento River Basin tributaries.		67 A. Number of additional miles of passage opened to salmon and steelhead on the Sacramento River EMZ (Keswick to Red Bluff, Red Bluff to Chico Landing, Chico Landing to Colusa, Colusa to Verona, Verona to Sacramento)											
67	SAC	SR			67 B. Number of passage impediments improved or removed for salmon and steelhead on the Sacramento River EMZ (Keswick to Red Bluff, Red Bluff to Chico Landing, Chico Landing to Colusa, Colusa to Verona, Verona to Sacramento)	ERP-99-B03	Aug-99	Apr-01	5,100,000	5,100,000	10,200,000	Anderson Cottonwood Irrigation District	Dee E. Swearingen		Anderson - Cottonwood Irrigation District Fish Passage and Screen Phase 3	<i>Installation of fish screens and monitor their effectiveness. Project completed, Implementation and Monitoring</i>
67	SAC	SR			67 B. Number of passage impediments improved or removed for salmon and steelhead on the Sacramento River EMZ (Keswick to Red Bluff, Red Bluff to Chico Landing, Chico Landing to Colusa, Colusa to Verona, Verona to Sacramento)	ERP-98-B03	Aug-98	Mar-99	325,000	0	325,000	Anderson - Cottonwood Irrigation District	Dee E. Swearingen		Anderson - Cottonwood Irrigation District Fish Passage and Screen	<i>Planning and Design, project completed.</i>

MS Number	REGION	Project Type	Milestone	ERP Targets taken from ERPP Vol 2	MS Components or Questions for field personnel	ERP PROJECT NUMBERS	CONTRACT		CALFED Award	Cost Share	Total Project Cost	Applicant	Principal Investigator	Quantifiable Units	Project Name	Comments
							START DATE	END DATE								
67	SAC	SR			67 B. Number of passage impediments improved or removed for salmon and steelhead on the Sacramento River EMZ (Keswick to Red Bluff, Red Bluff to Chico Landing, Chico Landing to Colusa, Colusa to Verona, Verona to Sacramento)	ERP-98-B22	Dec-99	Feb-00	340,164	39,100	379,264	Tehama - Colusa Canal Authority	Arthur R. Bullock		Fish Passage Improvement at the Red Bluff Diversion Dam	<i>Planning / Feasibility; project completed.</i>
67	SAC	SR			67 B. Number of passage impediments improved or removed for salmon and steelhead on the Sacramento River EMZ (Keswick to Red Bluff, Red Bluff to Chico Landing, Chico Landing to Colusa, Colusa to Verona, Verona to Sacramento)	ERP-98-B24	Feb-99	Oct-99	860,000	reduced by 19,240.65	840,759	Anderson - Cottonwood Irrigation District	Dee E. Swearingen		Anderson - Cottonwood Irrigation District Fish Passage and Fish Screen Improvement Project Phase II Final Design	<i>Planning, Permitting, and Design; project completed.</i>
67	SAC	SR			67 B. Number of passage impediments improved or removed for salmon and steelhead on the Sacramento River EMZ (Keswick to Red Bluff, Red Bluff to Chico Landing, Chico Landing to Colusa, Colusa to Verona, Verona to Sacramento)	ERP-98-B29	Sep-99	Jun-02	200,000	250,000	450,000	Natomas Mutual Water Company	Peter J. Hughes		American Basin Fish Screen and Habitat Improvement Project (Feasibility)	<i>Project completed, planning; Peter J. Hughes</i>
67	SAC	SR			67 B. Number of passage impediments improved or removed for salmon and steelhead on the Sacramento River EMZ (Keswick to Red Bluff, Red Bluff to Chico Landing, Chico Landing to Colusa, Colusa to Verona, Verona to Sacramento)	ERP-99-N01	Jun-01	Dec-05	5,100,000	0	5,100,000	Anderson - Cottonwood Irrigation District	Dee E. Swearingen		Anderson - Cottonwood Irrigation District Fish Passage Improvement Project	No description
67	SAC	SR			67 B. Number of passage impediments improved or removed for salmon and steelhead on the Sacramento River EMZ (Keswick to Red Bluff, Red Bluff to Chico Landing, Chico Landing to Colusa, Colusa to Verona, Verona to Sacramento)	ERP-01-N60	Nov-01	Jun-04	950,000	950,000	1,900,000	Natomas Mutual Water Company	Peter J. Hughes		American Basin Fish Screen and Habitat Improvement Project Phase III	<i>Planning and Design; 60 percent done; Peter J. Hughes</i>
67	SAC	SR			67 B. Number of passage impediments improved or removed for salmon and steelhead on the Sacramento River EMZ (Keswick to Red Bluff, Red Bluff to Chico Landing, Chico Landing to Colusa, Colusa to Verona, Verona to Sacramento)	ERP-01-N58	Apr-01	Apr-02	1,574,000	100,100	1,674,100	Tehama - Colusa Canal Authority	Arthur R. Bullock		Fish Passage Improvement Project At The Red Bluff Diversion Dam	<i>Mike Hagman, Tehama Colusa Canal Authority. Fish passage impediment was removed. Implementation; 75 percent complete.</i>

MS Number	REGION	Project Type	Milestone	ERP Targets taken from ERPP Vol 2	MS Components or Questions for field personnel	ERP PROJECT NUMBERS	CONTRACT		CALFED Award	Cost Share	Total Project Cost	Applicant	Principal Investigator	Quantifiable Units	Project Name	Comments
							START DATE	END DATE								
67	SAC	SR			67 B. Number of passage impediments improved or removed for salmon and steelhead on the Sacramento River EMZ (Keswick to Red Bluff, Red Bluff to Chico Landing, Chico Landing to Colusa, Colusa to Verona, Verona to Sacramento)	ERP-02-C01-D	Jul-01	Jun-05	4,432,966	0	4,432,966	USGS	Charlie Alpers		Upper Yuba River: Water Quality and Sediment Studies	Provide unimpeded upstream and downstream passage for salmon and steelhead on Sacramento River Basin tributaries. This is part of a feasibility study to investigate the possibility of expanding spawning habitat for salmonids into the Upper Yuba River, which is currently blocked by Englebright Dam. Ian Drury, DFG. Implementation; 50 percent complete. Gravel augmentation only. Implement gravel augmentation.
67	SAC	SR			67 B. Number of passage impediments improved or removed for salmon and steelhead on the Sacramento River EMZ (Keswick to Red Bluff, Red Bluff to Chico Landing, Chico Landing to Colusa, Colusa to Verona, Verona to Sacramento)	ERP-02-P09D	Jul-03	Jun-06	12,600,000	12,600,000	25,200,000	Natomas Mutual Water Co.	Peter J. Hughes		American Basin Fish Screen and Habitat Improvement Project; Phase I and II	Removal of a diversion dam. Removal of a diversion dam and pumps from the Natomas cross canal. Also, consolidate five pumps to two on the Sacramento river and screen them. Implementation; 40 percent done; Peter J. Hughes
67	SAC	SR			67 B. Number of passage impediments improved or removed for salmon and steelhead on the Sacramento River EMZ (Keswick to Red Bluff, Red Bluff to Chico Landing, Chico Landing to Colusa, Colusa to Verona, Verona to Sacramento)	ERP-99-B07	Mar-00	Dec-01	1,390,000	450,000	1,839,888 reduced by modification	Tehama-Colusa Canal Authority	Arthur R. Bullock		Fish Passage Improvement Project at the Red Bluff Diversion Dam Phase II	Planning and Design; project completed. Mike Hagman, Tehama Colusa Canal Authority
67	SAC	SR			67 B. Number of passage impediments improved or removed for salmon and steelhead on the Sacramento River EMZ (Keswick to Red Bluff, Red Bluff to Chico Landing, Chico Landing to Colusa, Colusa to Verona, Verona to Sacramento)	AFRP-00-20						AFRP	John Icanberry		Develop recommendations for enhanced fish passage in the Butte Slough area on lower Butte Creek	Objective: Within the Butte Slough Sub-area, reduce or eliminate delay and injury to Butte Creek adult salmon and steelhead and reduce or eliminate entrainment of juvenile Butte Creek and Sacramento River salmon and steelhead and other listed fish species under controlled-flow conditions while maintaining the viability of associated managed wetlands and agricultural operations. Contract between FWS (AFRP) and Ducks Unlimited, Inc. was signed 8/2000. Initial meetings were held with stakeholders to discuss methodology and process. MBK Engineering developed a list of pumping plants for the Butte Slough area with valid licenses and permits. Follow-up meeting were held with the stakeholders to discuss data gaps and biological and legal issues surrounding the project. A final list of pumping plant sites was reviewed and approved by the stakeholders in September 2002 and the sites were verified on the ground and located using GPS during October 2002. In addition, each site was photographed. A final report will be available in the spring of 2003.
67	SAC	SR			67 B. Number of passage impediments improved or removed for salmon and steelhead on the Sacramento River EMZ (Keswick to Red Bluff, Red Bluff to Chico Landing, Chico Landing to Colusa, Colusa to Verona, Verona to Sacramento)	ERP-98-N02	Oct-98	Mar-00	49,000	71,000	120,000	Institute for Fisheries Resources (IFR)	Dr. Guy D. Phillips		Expanding California Salmon Habitat to Alter Dams and Diversions	The project has five basic features: 1) document the extent, timing, and financing of the opportunity for acquisition/modification of private dams from willing sellers, (2) identify candidate Central Valley sites, (3) develop a template for analysis and resolution of issues for use by the public and agencies for all potential sites, (4) develop a private sector mechanism to acquire dams from willing sellers, and (5) conduct community and peer review workshops. Contributes to fish passage in all EMZs. William F. "Zeke" Grader, Institute for Fisheries Resources. Planning.

MS Number	REGION	Project Type	Milestone	ERP Targets taken from ERPP Vol 2	MS Components or Questions for field personnel	ERP PROJECT NUMBERS	CONTRACT		CALFED Award	Cost Share	Total Project Cost	Applicant	Principal Investigator	Quantifiable Units	Project Name	Comments
							START DATE	END DATE								
67	SAC	SR			67 C. Number of additional miles of passage opened to salmon and steelhead on the North Sacramento Valley EMZ (Clear Creek, Cow Creek, Bear Creek, Battle Creek)	ERP-98-E15	Oct-98	May-01	23,828	0	23,828	Sacramento Watersheds Action Group	John McCullah		Sulphur Creek Coordinated Watershed Management Plan Group	Sulphur Creek CRMP will distribute the Watershed Analysis, develop community-based restoration objectives, pursue funding to implement projects identified in the Watershed Analysis, and enhance public awareness and education in fisheries and watershed issues. May contribute to various habitat restoration, protection, and management milestones for the North Sacramento Valley (EMZ), Clear Creek (EMU). John McCullah, Sacramento Watersheds Action Group. Planning / Education. Project completed.
67	SAC	SR			67 C. Number of additional miles of passage opened to salmon and steelhead on the North Sacramento Valley EMZ (Clear Creek, Cow Creek, Bear Creek, Battle Creek)	IMM-02-I01	Mar-03		2,206,625	0	2,206,625	The Nature Conservancy	Jake Jacobson		Battle Creek Protection and Stewardship	One of the project goals is to protect long-term sustainability of freshwater fish habitat that supports various life cycle stages of Pacific lamprey, chinook salmon and steelhead trout by purchasing conservation easements on over 6,800 acres of habitat lands. Project not completed, still negotiating on properties. One property may close in fall. Acquisition.
67	SAC	SR			67 D. Number of passage impediments improved or removed for salmon and steelhead on the North Sacramento Valley EMZ (Clear Creek, Cow Creek, Bear Creek, Battle Creek)	ERP-98-E15	Oct-98	May-01	23,828	0	23,828	Sacramento Watersheds Action Group	John McCullah		Sulphur Creek Coordinated Watershed Management Plan Group	Sulphur Creek CRMP will distribute the Watershed Analysis, develop community-based restoration objectives, pursue funding to implement projects identified in the Watershed Analysis, and enhance public awareness and education in fisheries and watershed issues. May contribute to various habitat restoration, protection, and management milestones for the North Sacramento Valley (EMZ), Clear Creek (EMU). John McCullah, Sacramento Watersheds Action Group. Planning / Education. Project completed.
67	SAC	SR			67 D. Number of passage impediments improved or removed for salmon and steelhead on the North Sacramento Valley EMZ (Clear Creek, Cow Creek, Bear Creek, Battle Creek)	ERP-98-N02	Oct-98	Mar-00	49,000	71,000	120,000	Institute for Fisheries Resources (IFR)	Dr. Guy D. Phillips		Expanding California Salmon Habitat to Alter Dams and Diversions	The project has five basic features: 1) document the extent, timing, and financing of the opportunity for acquisition/modification of private dams from willing sellers, (2) identify candidate Central Valley sites, (3) develop a template for analysis and resolution of issues for use by the public and agencies for all potential sites, (4) develop a private sector mechanism to acquire dams from willing sellers, and (5) conduct community and peer review workshops. Contributes to fish passage in all EMZs. William F. "Zeke" Grader, Institute for Fisheries Resources. Planning.
67	SAC	SR			67 D. Number of passage impediments improved or removed for salmon and steelhead on the North Sacramento Valley EMZ (Clear Creek, Cow Creek, Bear Creek, Battle Creek)	ERP-96-M12	Jul-97	Apr-99	306,000	reduced 76,000	230,000	CDFG	Harry Rectenwald		Battle Creek Chinook Salmon and Steelhead Restoration Study	Restore and maintain riparian habitat. Planning; project completed.
67	SAC	SR			67 D. Number of passage impediments improved or removed for salmon and steelhead on the North Sacramento Valley EMZ (Clear Creek, Cow Creek, Bear Creek, Battle Creek)	ERP-96-M25	May-97	Oct-99	50,000	50,000	100,000	Western Shasta Resource Conservation District	Richard Baumann		Battle Creek Watershed Management Strategy Project	Planning / Education; project completed. Harry Rectenwald, DFG.
67	SAC	SR			67 D. Number of passage impediments improved or removed for salmon and steelhead on the North Sacramento Valley EMZ (Clear Creek, Cow Creek, Bear Creek, Battle Creek)	ERP-97-M02	Jul-01	Jun-02	395,000	395,000	790,000	DWR Northern District	William Mendenhall		Battle Creek Screens and Fish Passage	Curtis Anderson, DWR. Project completed, Planning and Design
67	SAC	SR			67 D. Number of passage impediments improved or removed for salmon and steelhead on the North Sacramento Valley EMZ (Clear Creek, Cow Creek, Bear Creek, Battle Creek)	ERP-97-M05	Dec-97	Oct-99	238,200		238,200	Townsend Flat Water and Ditch Company	Lee W. Salter		Saeltzer Dam Fish Passage (Dam Removal) Design and Environmental Permitting	Buford Holt, Townsend Flat Water and Ditch Company, Project completed, Planning and Design
67	SAC	SR			67 D. Number of passage impediments improved or removed for salmon and steelhead on the North Sacramento Valley EMZ (Clear Creek, Cow Creek, Bear Creek, Battle Creek)	ERP-98-B16	Sep-98	Jul-04	395,000	0	395,000	U.S. Bureau of Reclamation	Carl Werder		Battle Creek Screens and Fish Passage (Reconnaissance Investigations)	Harry Rectenwald, DFG. Planning / Design; project completed.

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							START DATE	END DATE								
67	SAC	SR			67 D. Number of passage impediments improved or removed for salmon and steelhead on the North Sacramento Valley EMZ (Clear Creek, Cow Creek, Bear Creek, Battle Creek)	ERP-99-N01	Jun-01	Dec-05	5,100,000	0	5,100,000	Anderson - Cottonwood Irrigation District	Dee E. Swearingen		Anderson - Cottonwood Irrigation District Fish Passage Improvement Project	No description
67	SAC	SR			67 D. Number of passage impediments improved or removed for salmon and steelhead on the North Sacramento Valley EMZ (Clear Creek, Cow Creek, Bear Creek, Battle Creek)	ERP-99-B01	Feb-99	Apr-01	26,958,100	23,550,900	50,509,000	DFG and USBR	Harry Rectenwald or Mike Ryan		Battle Creek Salmon and Steelhead Restoration Project	Improve streamflow and remove fish passage barriers. Planning and Design; 90 percent complete.
67	SAC	SR			67 D. Number of passage impediments improved or removed for salmon and steelhead on the North Sacramento Valley EMZ (Clear Creek, Cow Creek, Bear Creek, Battle Creek)	ERP-99-B08	Dec-99	Oct-05	1,663,400	0	1,663,400	USBR	Carl Werder		Improve Upstream Ladder and Barrier Weir @ Coleman National Fish Hatchery at Battle Creek	Harry Rectenwald, DFG. Planning / Design; 70 percent complete. Planning and designs are nearly complete.
67	SAC	SR			67 E. Number of additional miles of passage opened to salmon and steelhead on the Cottonwood Creek EMZ (Upper Cottonwood Creek, Lower Cottonwood Creek)	ERP-98-E05	Oct-98	Dec-01	161,000	0	161,000	Cottonwood Creek Watershed Group	Vieva Swearingen		Cottonwood Creek Watershed Group Formation	This project will: 1) Identify and organize the landowners to work with public land management agencies, interested parties and resource managers to form consensus on issues and their importance; 2) Coordinate with resources managers which have studied regional needs and correlate those studies with input from stakeholders; 3) Research previous studies within the Cottonwood Creek watershed. Contributes to the process of restoration, protection, and management of riparian and floodplain habitat in the Cottonwood Creek (EMZ). Patricia Bratcher, DFG. Implement watershed stewardship plan for Cottonwood Creek. Implementation; project completed.
67	SAC	SR			67 E. Number of additional miles of passage opened to salmon and steelhead on the Cottonwood Creek EMZ (Upper Cottonwood Creek, Lower Cottonwood Creek)	ERP-00-E03	Oct-00	Dec-05	443,047	0	443,047	Cottonwood Creek Watershed Group	Vieva Swearingen		Cottonwood Creek Watershed Monitoring and Assessment	Continued management of the Cottonwood Creek Watershed Group (CCWG) to oversee the implementation of a watershed plan. This phase would assess current conditions in the watershed (930 sq miles), both as to the land and stream conditions to give a baseline for future projects. Patricia Bratcher, DFG. Monitoring and Assessment; project completed.
67	SAC	SR			67 F. Number of passage impediments improved or removed for salmon and steelhead on the Cottonwood Creek EMZ (Upper Cottonwood Creek, Lower Cottonwood Creek)	ERP-00-E03	Oct-00	Dec-05	443,047	0	443,047	Cottonwood Creek Watershed Group	Vieva Swearingen		Cottonwood Creek Watershed Monitoring and Assessment	Continued management of the Cottonwood Creek Watershed Group (CCWG) to oversee the implementation of a watershed plan. This phase would assess current conditions in the watershed (930 sq miles), both as to the land and stream conditions to give a baseline for future projects. Patricia Bratcher, DFG. Monitoring and Assessment; project completed.
67	SAC	SR			67 F. Number of passage impediments improved or removed for salmon and steelhead on the Cottonwood Creek EMZ (Upper Cottonwood Creek, Lower Cottonwood Creek)	ERP-98-N02	Oct-98	Mar-00	49,000	71,000	120,000	Institute for Fisheries Resources (IFR)	Dr. Guy D. Phillips		Expanding California Salmon Habitat to Alter Dams and Diversions	The project has five basic features: 1) document the extent, timing, and financing of the opportunity for acquisition/modification of private dams from willing sellers, (2) identify candidate Central Valley sites, (3) develop a template for analysis and resolution of issues for use by the public and agencies for all potential sites, (4) develop a private sector mechanism to acquire dams from willing sellers, and (5) conduct community and peer review workshops. Contributes to fish passage in all EMZs. William F. "Zeke" Grader, Institute for Fisheries Resources. Planning.

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							START DATE	END DATE								
67	SAC	SR			67 F. Number of passage impediments improved or removed for salmon and steelhead on the Cottonwood Creek EMZ (Upper Cottonwood Creek, Lower Cottonwood Creek)	ERP-98-E05	Oct-98	Dec-01	161,000	0	161,000	Cottonwood Creek Watershed Group	Vieva Swearingen		Cottonwood Creek Watershed Group Formation	This project will: 1) Identify and organize the landowners to work with public land management agencies, interested parties and resource managers to form consensus on issues and their importance; 2) Coordinate with resources managers which have studied regional needs and correlate those studies with input from stakeholders; 3) Research previous studies within the Cottonwood Creek watershed. Contributes to the process of restoration, protection, and management of riparian and floodplain habitat in the Cottonwood Creek (EMZ). Patricia Bratcher, DFG. Implement watershed stewardship plan for Cottonwood Creek. Implementation; project completed.
67	SAC	SR			67 G. Number of additional miles of passage opened to salmon and steelhead on the Colusa Basin EMZ (Stoney Creek, Elder Creek, Thomes Creek, Colusa Basin)	ERP-99-B27	Oct-99	Mar-03	13,000	7,686	20,686	Colusa County Resource Conservation District	Patti Ann Turner		Watershed Educational Training	Contributes to monitoring and restoration efforts along the Colusa Basin. The Watershed Educational Training (WET) project revolves around the use of EnviroScape interactive watershed models to teach the importance of how the public's actions can have both positive and adverse effects on the watershed ecosystem. Patti A. Turner, Colusa County Resource Conservation District. Educational; project completed.
67	SAC	SR			67 H. Number of passage impediments improved or removed for salmon and steelhead on the Colusa Basin EMZ (Stoney Creek, Elder Creek, Thomes Creek, Colusa Basin)	ERP-98-N02	Oct-98	Mar-00	49,000	71,000	120,000	Institute for Fisheries Resources (IFR)	Dr. Guy D. Phillips		Expanding California Salmon Habitat to Alter Dams and Diversions	The project has five basic features: 1) document the extent, timing, and financing of the opportunity for acquisition/modification of private dams from willing sellers, (2) identify candidate Central Valley sites, (3) develop a template for analysis and resolution of issues for use by the public and agencies for all potential sites, (4) develop a private sector mechanism to acquire dams from willing sellers, and (5) conduct community and peer review workshops. Contributes to fish passage in all EMZs. William F. "Zeke" Grader, Institute for Fisheries Resources. Planning.
67	SAC	SR			67 I. Number of additional miles of passage opened to salmon and steelhead on the Butte Basin EMZ (Paynes Creek, Antelope Creek, Mill Creek, Deer Creek Big Chico Creek, Butte Creek, Butte Sink)	ERP-96-M22			67,990	56,500	124,490	Gorrill Land Co.	Don Heffren		The Gorrill Dam Fish Screen and Fish Ladder Project	Paul Ward, DFG, project completed, Planning, Feasibility and Design. Tracy Pumps funded one phase of this project.
67	SAC	SR			67 I. Number of additional miles of passage opened to salmon and steelhead on the Butte Basin EMZ (Paynes Creek, Antelope Creek, Mill Creek, Deer Creek Big Chico Creek, Butte Creek, Butte Sink)	ERP-97-M03	Sep-98	Nov-99	369,641	1,024,266	1,393,907	Gorrill Land Company	Don Heffren		Gorrill Dam Fish Screen and Fish Ladder Project	Paul Ward, DFG. Planning and design. Project completed.
67	SAC	SR			67 J. Number of passage impediments improved or removed for salmon and steelhead on the Butte Basin EMZ (Paynes Creek, Antelope Creek, Mill Creek, Deer Creek Big Chico Creek, Butte Creek, Butte Sink)	ERP-96-M22			67,990	56,500	124,490	Gorrill Land Co.	Don Heffren		The Gorrill Dam Fish Screen and Fish Ladder Project	Paul Ward, DFG, project completed, Planning, Feasibility and Design. Tracy Pumps funded one phase of this project.

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							START DATE	END DATE								
67	SAC	SR			67 J. Number of passage impediments improved or removed for salmon and steelhead on the Butte Basin EMZ (Paynes Creek, Antelope Creek, Mill Creek, Deer Creek Big Chico Creek, Butte Creek, Butte Sink)	ERP-98-N02	Oct-98	Mar-00	49,000	71,000	120,000	Institute for Fisheries Resources (IFR)	Dr. Guy D. Phillips		Expanding California Salmon Habitat to Alter Dams and Diversions	The project has five basic features: 1) document the extent, timing, and financing of the opportunity for acquisition/modification of private dams from willing sellers, (2) identify candidate Central Valley sites, (3) develop a template for analysis and resolution of issues for use by the public and agencies for all potential sites, (4) develop a private sector mechanism to acquire dams from willing sellers, and (5) conduct community and peer review workshops. Contributes to fish passage in all EMZs. William F. "Zeke" Grader, Institute for Fisheries Resources. Planning.
67	SAC	SR			67 J. Number of passage impediments improved or removed for salmon and steelhead on the Butte Basin EMZ (Paynes Creek, Antelope Creek, Mill Creek, Deer Creek Big Chico Creek, Butte Creek, Butte Sink)	ERP-95-M02	Jul-97	Dec-97	316,500	591,251	907,751	Durham Mutual Water Co.	Dale Nelson		Durham Mutual Fish Screen and Fish Ladder Project	Install ladder and fish screens on Butte Creek. Project completed. Planning and Implementation. Four Pumps funded an unknown study. Paul Ward, DFG
67	SAC	SR			67 J. Number of passage impediments improved or removed for salmon and steelhead on the Butte Basin EMZ (Paynes Creek, Antelope Creek, Mill Creek, Deer Creek Big Chico Creek, Butte Creek, Butte Sink)	ERP-95-M03			0	318,000	318,000	CDFG	Cindy Watanabe		Parrot - Phelan Fish Ladder and Screen	No description, not sure what happened to this contract Install a fish ladder and screens on Parrot -Phelan Dam. Project completed, Paul Ward, DFG. Implementation. Four Pumps funded the planning phase of the same project.
67	SAC	SR			67 J. Number of passage impediments improved or removed for salmon and steelhead on the Butte Basin EMZ (Paynes Creek, Antelope Creek, Mill Creek, Deer Creek Big Chico Creek, Butte Creek, Butte Sink)	ERP-96-M01	Nov-97	Dec-98	3,095,873	6,361,746	9,457,619	Western Canal Water District	Gary N. Brown		Butte Creek Siphon and Associated Improvements	Four diversion dams removed to improve fish passage. Project completed, Implementation, Ted Trimble, Western Canal Water District
67	SAC	SR			67 J. Number of passage impediments improved or removed for salmon and steelhead on the Butte Basin EMZ (Paynes Creek, Antelope Creek, Mill Creek, Deer Creek Big Chico Creek, Butte Creek, Butte Sink)	ERP-96-M21	May-98	Jun-98	70,304	50,000	120,304	Rancho Esquon Partners	Rick Ponciano		Adams Dam Fish Ladder and Screen Feasibility Study	Paul Ward, DFG, project completed. Planning and Design
67	SAC	SR			67 J. Number of passage impediments improved or removed for salmon and steelhead on the Butte Basin EMZ (Paynes Creek, Antelope Creek, Mill Creek, Deer Creek Big Chico Creek, Butte Creek, Butte Sink)	ERP-97-M03	Sep-98	Nov-99	369,641	1,024,266	1,393,907	Gorrill Land Company	Don Heffren		Gorrill Dam Fish Screen and Fish Ladder Project	Paul Ward, DFG. Planning and design. Project completed.
67	SAC	SR			67 J. Number of passage impediments improved or removed for salmon and steelhead on the Butte Basin EMZ (Paynes Creek, Antelope Creek, Mill Creek, Deer Creek Big Chico Creek, Butte Creek, Butte Sink)	ERP-97-M04	Jul-98	Nov-99	216,892	679,192	896,084	Rancho Esquon Partners	Rick Ponciano		Adams Ladder and Screen Construction	Construction of a fish ladder and fish screens on Adams Dam. Paul Ward, DFG, Project completed, Implementation. Tracy Pumps funded the preliminary engineering phase of this project.
67	SAC	SR			67 J. Number of passage impediments improved or removed for salmon and steelhead on the Butte Basin EMZ (Paynes Creek, Antelope Creek, Mill Creek, Deer Creek Big Chico Creek, Butte Creek, Butte Sink)	ERP-98-B21	Mar-99	Jun-03	1,215,000	0	1,215,000	CDWR	Bill Mendenhall		Anadromous Fish Passage at Clough Dam on Mill Creek	Removal of a portion of Clough Dam and installed a siphon underground. Curtis Anderson, DWR. Project completed, implementation

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							START DATE	END DATE								
67	SAC	SR			67 J. Number of passage impediments improved or removed for salmon and steelhead on the Butte Basin EMZ (Paynes Creek, Antelope Creek, Mill Creek, Deer Creek, Big Chico Creek, Butte Creek, Butte Sink)	ERP-01-N16	Jun-01	Dec-01	1,000,000	1,067,000	2,067,000	California Waterfowl Association	Robert Capriola		Butte Creek Sanborn Slough Bifurcation Upgrade Project	Installation of a high flow spillway to help fish passage. Project completed, Implementation.
67	SAC	SR			67 J. Number of passage impediments improved or removed for salmon and steelhead on the Butte Basin EMZ (Paynes Creek, Antelope Creek, Mill Creek, Deer Creek, Big Chico Creek, Butte Creek, Butte Sink)	ERP-01-N53	Jan-02	Apr-04	84,938	0	84,938	California Waterfowl Association	Robert Capriola		White Mallard Dam and Associated Diversions	Planning and Engineering; project completed.
67	SAC	SR			67 J. Number of passage impediments improved or removed for salmon and steelhead on the Butte Basin EMZ (Paynes Creek, Antelope Creek, Mill Creek, Deer Creek, Big Chico Creek, Butte Creek, Butte Sink)	ERP-99-B02	Sep-99	Mar-02	775,000	900,000	1,675,000	Ducks Unlimited	Olen Zirkle		Lower Butte Creek Project Phase II	Planning, Engineering and Design. Project completed. See project ERP-02-P07 for third phase.
67	SAC	SR			67 J. Number of passage impediments improved or removed for salmon and steelhead on the Butte Basin EMZ (Paynes Creek, Antelope Creek, Mill Creek, Deer Creek, Big Chico Creek, Butte Creek, Butte Sink)	CVPIA-02-V02	Apr-04	Jun-04	753,415		753,415	Ducks Unlimited	Olen Zirkle		White Mallard Dam and Associated Diversions Phase III Construction	Fish passage impediments are currently being removed. Implementation; 20 percent complete (new project)
67	SAC	SR			67 J. Number of passage impediments improved or removed for salmon and steelhead on the Butte Basin EMZ (Paynes Creek, Antelope Creek, Mill Creek, Deer Creek, Big Chico Creek, Butte Creek, Butte Sink)	AFRP-02-04						AFRP	John Icanberry		Lower Butte Creek Project: Sutter Bypass-Willow Slough Weir Fish Passage Project - Preliminary Engineering Investigation	Objective: The work program consists of developing preliminary engineering drawings, construction cost estimates, and an environmental checklist for structural modifications of the Willow Slough Weir flow control structure and fish ladder. The technical report will present alternatives and solutions for an improved fish ladder and appurtenances meeting current codes and standards. Operation flexibility will be designed into the new structure so that adjustments, based on stream flows, hydraulic criteria, and fish passage performance, can be made to optimize fish passage past the weir structure. The project will be coordinated with overall operations plans for the Sutter Bypass and is supported by local stakeholders involved in the Lower Butte Creek Project evaluation. A preferred alternative fish ladder, Pool and Chute, has been selected. Four corrugated metal pipe culverts will join into a headwall with the 6cfs to 300cfs capacity fish ladder. The cost estimate for the structure is underway.
67	SAC	SR			67 J. Number of passage impediments improved or removed for salmon and steelhead on the Butte Basin EMZ (Paynes Creek, Antelope Creek, Mill Creek, Deer Creek, Big Chico Creek, Butte Creek, Butte Sink)	ERP-02-P07	May-03	Apr-06	5,748,112	0	5,748,112	Ducks Unlimited	Olen Zirkle		Butte Sink Water Control Structure Modifications Phase III (Construction)	Install fish ladders and overflow gates at Morton, End, North, Drivers Cut, and Tarke Weirs Outfall. Implementation project. Three out of five structures were completed.
67	SAC	SR			67 L. Number of passage impediments improved or removed for salmon and steelhead in the Feather River/Sutter Basin EMZ (Feather River, Yuba River, Bear River, Honcut Creek, Sutter Bypass)	ERP-98-C19	Nov-98	Jun-99	7,333	0	7,333	USFWS	Carl Mesick		Conduct and Facilitate Meetings on the Upper Yuba River, Englebright Dam	These address streamflow and erosion issues. Ike Lukenbill, USFWS. Planning; project completed.

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67	SAC	SR			67 L. Number of passage impediments improved or removed for salmon and steelhead in the Feather River/Sutter Basin EMZ (Feather River, Yuba River, Bear River, Honcut Creek, Sutter Bypass)	ERP-98-N02	Oct-98	Mar-00	49,000	71,000	120,000	Institute for Fisheries Resources (IFR)	Dr. Guy D. Phillips		Expanding California Salmon Habitat to Alter Dams and Diversions	The project has five basic features: 1) document the extent, timing, and financing of the opportunity for acquisition/modification of private dams from willing sellers, (2) identify candidate Central Valley sites, (3) develop a template for analysis and resolution of issues for use by the public and agencies for all potential sites, (4) develop a private sector mechanism to acquire dams from willing sellers, and (5) conduct community and peer review workshops. Contributes to fish passage in all EMZs. William F. "Zeke" Grader, Institute for Fisheries Resources. Planning.
67	SAC	SR			67 L. Number of passage impediments improved or removed for salmon and steelhead in the Feather River/Sutter Basin EMZ (Feather River, Yuba River, Bear River, Honcut Creek, Sutter Bypass)	ERP-01-N54	Apr-01	Jun-02	4,783,719	200,000	4,983,719	Ducks Unlimited	Olen Zirkle		Lower Butte Creek Project Phase III : Facilitation / Coordination and Construction of Three Fish Passage Modifications to the Sutter Bypass West Side Water Control Structures	Water control structures were installed for fish passage at East West Weir, Weir 5 and Guisti Weir. Implementation; project completed.
67	SAC	SR			67 L. Number of passage impediments improved or removed for salmon and steelhead in the Feather River/Sutter Basin EMZ (Feather River, Yuba River, Bear River, Honcut Creek, Sutter Bypass)	AFRP-02-05		Sep-03				AFRP	Cesar Blanco		Construct an Exclusion Device to Prevent Yuba River Salmon from Accessing the Goldfields	Objective: Replace the existing temporary barrier with a permanent "leaky-dike" barrier to prevent the migration of Yuba River Chinook salmon and steelhead into the Goldfields. Construction completed September 2003 as shown in the photo above.
67	SAC	SR			67 L. Number of passage impediments improved or removed for salmon and steelhead in the Feather River/Sutter Basin EMZ (Feather River, Yuba River, Bear River, Honcut Creek, Sutter Bypass)	AFRP-03-01						AFRP	Cesar Blanco		VAKI Riverwatcher Fish Monitoring System at Daguerre Point Dam	Objective: The objective is to purchase two (2) VAKI Riverwatcher fish counting systems with digital camera units in order to track and record fish movement through the fish ladders at Daguerre Point Dam. Systems were installed on the ladders at Daguerre Point Dam in July 2003. The solar systems used to power the VAKI units were not sufficient to provide reliable operation; hence PRAQUA, the sole distributor for the VAKI system in North America, provided additional solar panels at no cost in order to achieve reliable operation of the VAKI units. The additional solar panels should be in place by September 2003.
67	SAC	SR			67 M. Number of additional miles of passage opened to salmon and steelhead in the American River Basin EMZ (American River Basin, Lower American River)	ERP-97-N05	Mar-99	Jun-00	222,530	0	222,530	Placer County Planning Department	Loren Clark		Auburn Ravine/Coon Creek Restoration Planning	Develop a plan with major emphasis on protection and restoration of riparian and aquatic habitats. John Nelson, Department of Fish and Game. Planning; project completed.
67	SAC	SR			67 N. Number of passage impediments improved or removed for salmon and steelhead in the American River Basin EMZ (American River Basin, Lower American River)	ERP-01-N60	Nov-01	Jun-04	950,000	950,000	1,900,000	Natomas Mutual Water Company	Peter J. Hughes		American Basin Fish Screen and Habitat Improvement Project Phase III	Barrier was removed. Project spans across two EMZ's. Planning and Design; 60 percent done. Peter J. Hughes
67	SAC	SR			67 N. Number of passage impediments improved or removed for salmon and steelhead in the American River Basin EMZ (American River Basin, Lower American River)	ERP-98-N02	Oct-98	Mar-00	49,000	71,000	120,000	Institute for Fisheries Resources (IFR)	Dr. Guy D. Phillips		Expanding California Salmon Habitat to Alter Dams and Diversions	The project has five basic features: 1) document the extent, timing, and financing of the opportunity for acquisition/modification of private dams from willing sellers, (2) identify candidate Central Valley sites, (3) develop a template for analysis and resolution of issues for use by the public and agencies for all potential sites, (4) develop a private sector mechanism to acquire dams from willing sellers, and (5) conduct community and peer review workshops. Contributes to fish passage in all EMZs. William F. "Zeke" Grader, Institute for Fisheries Resources. Planning.

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67	SAC	SR			67 N. Number of passage impediments improved or removed for salmon and steelhead in the American River Basin EMZ (American River Basin, Lower American River)	ERP-97-N05	Mar-99	Jun-00	222,530	0	222,530	Placer County Planning Department	Loren Clark		Auburn Ravine/Coon Creek Restoration Planning	Develop a plan with major emphasis on protection and restoration of riparian and aquatic habitats. John Nelson, Department of Fish and Game. Planning; project completed.
67	SAC	SR			67 N. Number of passage impediments improved or removed for salmon and steelhead in the American River Basin EMZ (American River Basin, Lower American River)	ERP-02-P09D	Jul-03	Jun-06	12,600,000	12,600,000	25,200,000	Natomas Mutual Water Co.	Peter J. Hughes		American Basin Fish Screen and Habitat Improvement Project; Phase I and II	Removal of a diversion dam. Removal of a diversion dam and pumps from the Natomas cross canal. Also, consolidate five pumps to two on the Sacramento river and screen them. Implementation; 40 percent done. Peter J. Hughes
67	SAC	SR			67 N. Number of passage impediments improved or removed for salmon and steelhead in the American River Basin EMZ (American River Basin, Lower American River)	ERP-98-B29	Sep-99	Jun-02	200,000	250,000	450,000	Natomas Mutual Water Company	Peter J. Hughes		American Basin Fish Screen and Habitat Improvement Project (Feasibility)	Project completed, planning; Peter J. Hughes

