					MULT	I SPECIES	CONS	ERVAT	ION STRA	TEGY MI	ILESTONE	112 RO	LLED UP	SUMM	IARY		
MII ass spe wid	EST essm cies e sur	ONE popul veys	112 Develop and imple ind research program (Cl ations acceptable to the for all "R" and "r" covered	ement a comprehensiv MARP) for terrestrial a fish and wildlife agenc d plants and animals in	e monitoring, nd aquatic habitats and ies. Conduct range the MSCS Focus Area.	PROJECTS REVIE M08, ERP-96-M10, ERP-96-M10, ERP- 96-M27, ERP-97-C08, ERP-97-C11, ERP- 97-N038, ERP-97-C18, ERP-98-E15, ERP- 98-B25, ERP-98-C07, ERP-98-C03, ERP-98-C07, ERP-98-C13, ERP-98-C12, ERP-98-C13, ERP-98-C12, ERP-98-F12, ERP- 98-N03, ERP-99-B10, ERP-99-B13, ERP- 99-N05, ERP-90-B13, ERP-99-B13, ERP- 99-N05, ERP-90-B13, ERP-99-B13, ERP- 99-N05, ERP-90-B13, ERP-99-B13, ERP- 91-N05, ERP-90-B13, ERP-91-N05, ERP-90-B13, ERP-91-N05, ERP-90-B13, ERP-91-N05, ERP-90-B13, ERP-91-N05, ERP-91-N	WED - ERP-90 ERP-96-M11 96-M26, ERP-97- 0, ERP-97-C09, 97-N034, ERP-97- ERP-97-N05 8, ERP-97-N05 98-B16, ERP- 001, ERP-98- 8, ERP-98-C10, 98-C12, ERP- 98-C12, ER	5 SUMMAI assessment Few contrac Comprehen for impleme and Amphib framework f on status an most of thos efforts accol Science Pro measures n and reportin	RY A significan , or research on te ts may adhere to sive Monitoring, A ntation and refiner ian Monitoring Pla or protocols devel id trends of specie ie projects below. mplished to date a gram can meet th eed to be complet g in a manner cor	nt number of ca errestrial and a CMARP tenets (Seessment, ar ent of the pro- an were drafted oped for data of es and habitats ERP NEED s t and to refine an eir program re- ed so that mor isistent with an	ontracts funded by quatic habitats an s. The ERP funde d Research Plan (gram. An Aquatic (TAMP was also collected by ERP p . CMARP, TAMP, o engage the Scie d implement these sponsibilities. Ecc itoring, data mana adaptive manage	the ERP had link d species of intere d development of Which provided re Monitoring Plan a completed) to pro vrojects and esser and AMP were n nice Program in ir e programs so tha logical indicators agement, assessin ment implementa	ss with monitoring est to the ERP. the ecommendations and Terrestrial ovide the ntial information to utilized for nvigorating the at the ERP and and performance nent, research, titon strategy may			AGENCY NOTES	NOTES CONT'D
ER ER ER P58 P20 10,4	P-99-B P-00-E P-01-N P-01-N P-01-N ERP-(2, ERP-(2, ERP-0 S, AFRI S, FRP-0	319, ER 109, ER 305, ER 101, ER 127, ER 227, ER 220-P5 -02-P2 P-00-22 02-06, <i>P</i>	P-99-F07, ERP-99-F11, ERP-99 P-99-N10, ERP-99-N12, ERP-99 P-01-086, ERP-00-E03, ERP-00 P-01-N28, ERP-01-N14, ERP-01 P-01-N28, ERP-01-N29, ERP-01 P-01-N48, ERP-01-N49, ERP-01 9, ERP-02-P14, ERP-02-P32, ER 2, AFRP-00-24, AFRP-00-28, AFI FRP-02-08, AFRP-03-05, CVPL	-N01, ERP-99-N02, ERP-99-N -N13, ERP-99-N15, ERP-99-1 -E04, ERP-00-E05, ERP-01-1 -N13, ERP-01-N19, ERP-01-1 -N32, ERP-01-N43, ERP-01-1 -N50, ERP-01-N59, ERP-02-1 ERP-02-P33, ERP-02-P34, ERP RP-02-P33, ERP-02-P34, ERP RP-00-33, AFRP-00-35, AFRF A-01-F09, CVPIA-01-F10, CV 02-101	103, ERP-99-N06, ERP-99-N07, N21, ERP-00-B03, ERP-00-B04, 108, ERP-01-C01, ERP-01-C05, N22, ERP-01-N24, ERP-01-N26, R44, ERP-01-N45, ERP-01-N46, P52, ERP-02D-P57, ERP-020- P02-P19, ERP-02-P20, ERP-02 -00-46, AFRP-01-06, AFRP-01- PIA-01-F11, CVPIA-01-F13, IMM	2- A		12 EV									
			MULTIS					12 EV	T			RUJECIS			FORMULATE THE RO		
MS Number	REGION	Project Type	Milestone	ERP Targets taken from ERPP Vol 2	MS Components or Questions for field personnel	ERP PROJECT NUMBERS	CON START DATE	NTRACT	CALFED Award	Cost Share	Total Project Cost	Applicant	Principal Investigator	Quantifiable Units	Project Name	Comm	ents
112	RES		Develop and implement a comprehensive monitoring, assessment and research program (CMARP) for terrestrial and aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.		112 A Status of the development of a comprehensive monitoring, assessment and research program (CMARP) for terrestrial habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.	s ERP-96-M26	Oct-97	Sep-98	35,000	none	35,000	Department of Water Resources			Prospect Island - Develop Monitoring Plan	This is a monitoring plan will pro processes, success of the project ti animals, and address a research qu organic material. Gina VanKlom, Monitoring Plan was developed pr This project was supposed to emergent wetlands by breaching Additionally, it was to restore/repr islands. An unplanned and mispl getting started stalled the project place to	vide information on ecological rrough use of habitat by targetec estion regarding the production of penburg, CDFG. Planning; a ior to the project being on hol restore shallow water fresh levees to restore tidal action. ant riparian habitat on interna ced breach prior to the project . No implementation has taken date.
112	RES				112 A Status of the development of a comprehensive monitoring, assessment and research program (CMARP) for terrestrial habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.	ERP-97-N16	Aug-98	Jan-01	185,000	53,900	238,900	East Bay Regional Park District	Susan Williams		Bay Point Shoreline Restoration Plan	Muted tidal marsh along Contra Cost influenceappropriate hydrology wetlands; 52 acres. <i>Project is cc</i> <i>created. Carl W</i>	a shoreline; areas restored to tic or areas managed for seasonal <i>mplete. Planning documents</i> <i>ilcox, CDFG.</i>

r.		e				CON	TRACT						ele		
qun	NO	ct Ty		MS Components or									ıtifiat		
N SM	REGI	A Milestone	ERP Targets taken from ERPP Vol 2	Questions for field personnel	ERP PROJECT NUMBERS	START DATE	END DATE	CALFED Award	Cost Share	Total Project Cost	Applicant	Principal Investigator	Quan Units	Project Name	Comments
				112 A Status of the development of a comprehensive monitoring, assessment and research program (CMARP) for terrestrial habitats and species pooulations acceptable to the										Habitat Acquisition for Riparian Brush Rabbit and Riparian Woodrat	Project will establish two new riparian brush habitat preserves within the historic range of the species; Protect riparian habitat as potential riparian brush reintroduction sites. This project acquires fee title/conservation easement for riparian brush rabbit reintroduction sites. Acquisition and monitoring project. <i>Project 20% complete</i> (acquisition in progress, survey 90% complete) Proposed acquisition of ~400 acres. Kim Forrest. USFWS.
12	RES			fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.	FRP-01-N11	Sep-01	.111-03	2 720 085		2 720 085	USEWS	Heather Bell			
	L.			112 A Status of the	LINF-01-INTT	Sep-01	Jui-05	2,720,003		2,720,005	031 103			Battle Creek Conservation Easements	Assistance in the acquisition of conservation easements and initial
				development of a comprehensive monitoring, assessment and research program (CMARP) for terrestrial habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the NGCS Encure Acce							The Neture			Acquisitions, Management, and Restoration Planning	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. <i>Project not complete. Acquisition.</i> 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.
112	RES			MSCS Focus Area.	ERP-01-N24	Nov-01	Oct-04	1,000,000	0	1,000,000	Conservancy	Jake Jacobson			
12	KES			112 A Status of the development of a comprehensive monitoring, assessment and research program (CMARP) for terrestrial habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.	EDD-07-N04	Feb.08	Feb.01	808 700	0	808 700	The Nature	Merihan 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.
112	RES			112 A Status of the development of a comprehensive monitoring, assessment and research program (CMARP) for terrestrial habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.	ERP-97-N13	Jul-98	Dec-01	889,202	none	885,202	Habitat Assessment & Restoration team, Inc.	Jeff Hart		Tyler Island Restoration	Conduct scientific monitoring and experimental program to improve habitat values as measured by increases in plant cover and general habitat heterogeneity and also the contribution of instream living cover to fish and macroinvertebrates. Jeff Hart, Hart Restoration, Inc. Implementation. Restore SRA and riparian habitat along 4,500 ft of Georgiana Slough and 3,000 ft along Mokelumne River on Tyler Island; total 7,500 ft. Also 2.3 acres of tidal emergent wetland. Project completed.
	RES			112 A Status of the development of a comprehensive monitoring, assessment and research program (CMARP) for terrestrial habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.	ERP-98-C09 A, B,C	Jul-99	Jun-02	500,000	none	500,000	Delta Protection Commission, Dept. of Fish and Game, Central Valley Regional Water quality control Board	Margit Arambaru, Brian Finlayson, Sue McConneil		Delta Dredge Reuse Strategy	This project evaluated existing sediment contaminant data, existing sediment quality guidelines and made recommendations for guidelines to be used in evaluating dredging projects and dredge material reuse in the Delta.

		۵					CON	TRACT							
nber	-	Type					CON	IRACI					ahei		
Nun	05	ject		ERP Targets taken from	MS Components or Questions for field		STADT				Total Project		Principal	മ	
ΜS	REC	Pro	Milestone	ERPP Vol 2	personnel	NUMBERS	DATE	END DATE	CALFED Award	Cost Share	Cost	Applicant	Investigator	⊂ ⊃ Project Name	Comments
					112 A Status of the									Comprehensive Monitoring	Monitoring and Research; Completed. Leo Winternitz, The Water
					development of a									Assessment and Research Program (CMARP)	Forum
					assessment and research									(000.00)	
					program (CMARP) for										
					terrestrial habitats and species										
					fish and wildlife agencies.										
					Conduct range wide surveys										
					for all "R" and "r" covered										
N	S				MSCS Focus Area.										
-	R					ERP-98-C10	May-98	Dec-99	800,000	0	800,000	CDWR	Leo Winternitz		
					112 A Status of the development of a									Report of the San Francisco Bay Area	Publication of a technical report that compiles over 100 short reports or "profiles" prepared by participants of the San Francisco Bay Area
					comprehensive monitoring,									Wetlands Ecosystem Goals Project	Wetlands Ecosystem Goals Project. Includes information on 97
					assessment and research										species of insects, fishes, amphibians, reptiles, mammals, birds and
					program (CMARP) for terrestrial habitats and species										plants
					populations acceptable to the										
					fish and wildlife agencies.										
					for all "R" and "r" covered										
					plants and animals in the							Friends of the			
4	ES				MSCS Focus Area.	EPD 00 P10	Son 00	Son 03	44.000		44.000	San Francisco	Michael Monroe		
-					112 A Status of the	LIKF-99-010	Sep-00	Sep-03	44,000		44,000	LStuary	WICHAEL WOLLDE	South Napa River Tidal Slough and	Task 2.9 Monitoring and data collection. Development of a plan and
					development of a									Floodplain Restoration Project	ongoing monitoring. The monitoring and adaptive management plan
					comprehensive monitoring, assessment and research										will be provided to CALFED for approval and consistency with CMARP. Project not complete. Grants to purchase and build have been
					program (CMARP) for										obtained, EIR has been completed, Restoration has not begun;
					terrestrial habitats and species										Carl Wilcox, CDFG.
					fish and wildlife agencies.										
					Conduct range wide surveys										
					for all "R" and "r" covered							City of			
2	្ល				MSCS Focus Area.							American			
7	R				112 A Status of the	ERP-99-B11	Apr-00	Sep-02	1,520,000	390,000	1,910,000	Canyon	John Wankum	Georgiana Slough Habitat	This project will develop a monitoring plan for aquatic and terrestrial
					development of a									Georgiana Siougn Habitat	species. Jeff Hart, HART Restoration, Inc. Implementation.
					comprehensive monitoring,										Project completed.
					assessment and research										
					terrestrial habitats and species										
					populations acceptable to the										
					tish and wildlife agencies.							Habitat			
					for all "R" and "r" covered							Assessment			
					plants and animals in the							and			
112	RES				MISCS FOCUS Area.	ERP-99-N03	Nov-99	Mar-03	1,100,000	none	1,100,000	Team, Inc	Jeff Hart		
					112 A Status of the									Reintroduction of Endangered Soft	Project Phase I (Tasks 1-1 through 1-9) involves the investigation of
					comprehensive monitoring									Bird's Beak to Restored Habitat in the Suisun Marsh	nabitat factors critical to soft bird's beak, and development of restoration criteria. Project Phase II (Task 2-11) involves the
					assessment and research										development of a long term rare plant monitoring program.
					program (CMARP) for										
					populations acceptable to the										
1					fish and wildlife agencies.										
1					Conduct range wide surveys for all "R" and "r" covered										
					plants and animals in the										
12	SES				MSCS Focus Area.		lon 00	Dec 01	149 607	22.490	191 107		Eliska		
		1 1			1	EKP-99-IN05	Jan-00	Dec-01	140,027	32,480	101,107	000	Remankova	1	

	Der	Type					CON	TRACT	_					able		
		GION		ERP Targets taken from	MS Components or Questions for field	ERP PROJECT	START				Total Project		Principal	uantifia dits		
	ž	2 2	Milestone	ERPP Vol 2	personnel 112 A Status of the development of a	NUMBERS	DATE	END DATE	CALFED Award	Cost Share	Cost	Applicant	Investigator	đō	Project Name Linked Hydrogeomorphic-Ecosystem Models to Support Adaptive	Comments This project will develop a paired-basin water quality and aquatic food resource monitoring and modeling program. This project will also
					comprehensive monitoring, assessment and research program (CMARP) for										Management: Cosumnes-Mokelumne Paired Basin Project	conduct sampling programs with emphasis on assessment of the benefits of restoration efforts within the basins. Jeff Mount,UC Davis. Research and Planning; The project is wrapping up. The final
					terrestrial habitats and species populations acceptable to the fish and wildlife agencies.											reports are being finalized and should be available soon.
					Conduct range wide surveys for all "R" and "r" covered plants and animals in the											
1		RES			MSCS Focus Area.	ERP-99-N06	Jan-00	Jan-03	1,546,016	none	1,546,016	UC Davis	Jeff Mount			
					112 A Status of the										Continuation of the Lower Mokelumne	This project will prepare the Lower Mokelumne River Watershed
					comprehensive monitoring, assessment and research										River watersned Stewardship Program	complete
					terrestrial habitats and species populations acceptable to the fish and wildlife agencies.											
					Conduct range wide surveys							San Joaquin				
					plants and animals in the							Resource				
	2	SES			MSCS Focus Area.	ERP-99-N15	May-00	Jun-02	227 000		227 000	Conservation District	John Meek			
		-			112 A Status of the		indy ou	0011 02	221,000		221,000	Biotriot			Focused Action to Develop	Research Project. Task I: Identify the timing, frequent, magnitude, and
					development of a comprehensive monitoring,										and Water Management Strategies in	riparian vegetation, fish, and other aquatic organisms as well as natura
					assessment and research										the San Joaquin Basin	floodplain and alluvial river processes. Research and Monitoring
					terrestrial habitats and species											project completed. John Cam, NHI.
					populations acceptable to the fish and wildlife agencies.											
					Conduct range wide surveys											
					for all "R" and "r" covered plants and animals in the							Natural				
		SES			MSCS Focus Area.	FRP-00-B04	Feb-01	.lul-02	295 925		295 925	Heritage	John Cain			
		-			112 A Status of the		10001	00102	200,020		200,020	montato			Merced River Corridor Restoration	This project will develop a long-term restoration and monitoring plan.
					development of a comprehensive monitoring,										Project Phase III	Project completed. The Merced River Corridor Restoration Plan was developed in Phase III. Jeff McLain, USFWS.
					assessment and research											
					terrestrial habitats and species											
					populations acceptable to the fish and wildlife agencies											
					Conduct range wide surveys											
					for all "R" and "r" covered plants and animals in the											
	2 1	ES			MSCS Focus Area.		Eab 00	Son 02	260.251		260.251	Stillwater	loppifor Vick			
-		r.			112 A Status of the	ERF-00-E03	Feb-00	Sep-02	200,331		200,351	Sciences	Jennier vick		A Mechanistic Approach to Riparian	This project will identify the physical and biological mechanisms
					development of a comprehensive monitoring										Restoration in the San Joaquin Basin Phase Land II	affecting the establishment of riparian vegetation in the San Joaquin Basin in order to identify the most cost-effective strategies and sites for
					assessment and research											riparian protection and restoration. Phase I: Develop a Mechanistic
					program (CMARP) for terrestrial habitats and species											Conceptual Model of Riparian Plant Establishment, Analyze Pilot Data, and Select Study Sites. Phase II: Develop a Physical/Biological
					populations acceptable to the											Restoration Model Based on San Joaquin Basin Study Sites.
					Conduct range wide surveys											Research project completed. Jeff McLain, USFWS.
					for all "R" and "r" covered											
		S			MSCS Focus Area.							Stillwater				
13	= i	2		1	1	ERP-00-F04	Feb-00	Dec-03	223,666	1	223.666	Sciences	John Stella	I		

112	12	112	12	12	MS Number
RES	RES	RES	RES	tes	REGION
					Project Type
					Milestone
					ERP Targets taken from ERPP Vol 2
112 A Status of the development of a comprehensive monitoring, assessment and research program (CMARP) for terrestrial habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.	112 A Status of the development of a comprehensive monitoring, assessment and research program (CMARP) for terrestrial habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.	112 A Status of the development of a comprehensive monitoring, assessment and research program (CMARP) for terrestrial habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.	112 A Status of the development of a comprehensive monitoring, assessment and research program (CMARP) for terrestrial habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.	112 A Status of the development of a comprehensive monitoring, assessment and research program (CMARP) for terrestrial habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.	MS Components or Questions for field personnel
ERP-01-N29	ERP-01-N13	ERP-01-N12	ERP-01-N08		ERP PROJECT NUMBERS
May-01	Jul-01	- Apr-02	Apr-02	May 09	CON START DATE
Jul-04	hul-04	- Apr-00	Anr-05	Sec. 03	TRACT
198,450	928 150	283,526	7.646.233	556 200	CALFED Award
241,895	411 100	(9120,000)	1885000 USACE (\$1,400,000), USBR (\$360,000), USFWS (\$125,000)		Cost Share
440,345	1 339 250	283,526	0.531.233	556 200	Total Project Cost
Contra Costa RCD	Association of Bay Area Governments	Yolo Basin Foundation	USFWS San Luis Nati Wildlife Refuge	University of California,	Applicant
Laura Cossey	Marcia Brockhank	Robin Kulakow	Kim Forrest	loffon Mount	Principal Investigator
	2159 I F				Quantifiable Units
Kirker Creek Watershed CRMP Program	Demonstration Project for Delta In- Channel Islands	Yolo Basin Management Strategy, Phase II	San Joaquin River NWR Riparian Habitat Protection and Floodplain Restoration Project-Phase II	McCormick Williamson Tract Phase II Monitoring Program	Project Name
The goals of this project are to facilitate, coordinate, and support the efforts of landowners, municipalities, industry, and citizens of the Kirker Creek Watershed to develop and write a watershed management plan using the Coordinated Resource Management and Planning (CRMP) process. Task 3 includes conducting inventory and monitoring; Task 6 includes the writing of a plan. (Note: Contract amendment in place to increase the scope of work to include implementation). <i>Planning, monitoring and education project; 90% complete with the watershed management plan completed. Carla Koop, Contra Costa RCD.</i>	Project will monitor the effects biotechnical erosion control has on aquatic and terrestrial species. <i>Marcia Brockbank, Association of Bay Area Governments. Implementation. Webb Tract #3 is not completed. They had to do an amendment since the floating log booms failed. Amendment is for 2 years.</i>	Contributes to development of a comprehensive monitoring, assessment and research program (CMARP) for terrestrial habitats and species populations acceptable to the fish and wildlife agencies. Contributes rangewide surveys for some of the "R" and "r" covered plants and animals in the MSCS Focus Area.	Task F. Monitoring and Evaluation. Project performance will be measured through a multi-faceted monitoring and evaluation program. Monitoring will include wetlands restoration, increase in shaded riverine aquatic, and floodplain hydrology.	Program to establish, restore, and maintain an unspecified amount of riparian habitat to improve floodplain habitat, salmonid shaded riverine aquatic habitat, and instream cover along the Mokelumne River. Companion proposal submitted by DWR (McCormick-Williamson Tract Restoration Planning, Design and Monitoring Program: II). (Also see ERP-99-03, ERP-99-F04, ERP-00-F07, ERP-02-P25). Planning. This project is completed. It involved evaluation of the historical conditions that have lead to the current condition of the property. The pre-assessment of the conditions gave researchers a better understanding of natural processes that occurred in the past that are valuable for planning for the future. It is unclear whether or not these tools are being utilized and how valuable they might be in current planning efforts.	Comments

ber	_	Type					CON	TRACT	-					able		
Num	NO	ect		EDD Townsta taken from	MS Components or						Total Duciest		Dringing	ntifi s		
WS	REG	Proj	Milestone	ERP Targets taken from ERPP Vol 2	personnel	NUMBERS	DATE	END DATE	CALFED Award	Cost Share	Cost	Applicant	Investigator	Qua Unit	Project Name	Comments
					112 A Status of the										Willow Slough Watershed Rangeland	Project will enhance riparian habitat by erecting fences along 3 miles of
					development of a										Stewardship	riparian corridor to manage grazing and will also revegetate selected
					assessment and research											di cuò.
					program (CMARP) for											
					populations acceptable to the											
					fish and wildlife agencies.											
					for all "R" and "r" covered							National				
					plants and animals in the							Audubon				
13	RES				MSCS Focus Area.	ERP-01-N31	Oct-01	Aug-04	1.800.668	0	1.800.668	Society- California	Judy Boshoven			
					112 A Status of the						,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				Watershed Stewardship in Marsh	Baseline monitoring will be conducted on aquatic and terrestrial
					development of a comprehensive monitoring.										Сгеек	species. John Cain, NHI. Monitoring
					assessment and research											
					program (CMARP) for terrestrial babitats and species											
					populations acceptable to the											
					fish and wildlife agencies.											
					for all "R" and "r" covered											
					plants and animals in the											
112	RES				MSCS FOCUS Alea.	ERP-01-N32	Jul-01	Jul-03	126,000		126,000	NHI	John Cain			
					112 A Status of the										Restoration of the Confluence Are of	Protect and restore 311 acres of flood-prone, land located within the
					comprehensive monitoring,										Mud Creeks	Sacramento River, Big Chico and Mud Creeks at river miles 194-195.
					assessment and research											Cathy Morris, The Nature Conservancy. Acquisition; just
					terrestrial habitats and species											person regarding non-CALFED funded projects contributing to
					populations acceptable to the											milestones.
					Tish and wildlife agencies. Conduct range wide surveys											
					for all "R" and "r" covered											
	s				plants and animals in the MSCS Focus Area.							The Nature				
112	RE					ERP-02-P16-D			2,603,377		2,603,377	Conservancy	Sam Lawson			
					112 A Status of the development of a										Songbird population responses to riparian management and restoration	Geoffrey Geupel, Point Reyes Bird Observatory. Monitoring. Project 5% completed.
					comprehensive monitoring,										at multiple scales: comparative	· · · · · · · · · · · · · · · · · · ·
					assessment and research										analysis, predictive modeling, and the	
					terrestrial habitats and species										oraldation of morning programs.	
					populations acceptable to the fish and wildlife agencies											
					Conduct range wide surveys											
					for all "R" and "r" covered							Point Reves				
2	្ល				MSCS Focus Area.							Bird				
7	ž				112 A Status of the	ERP-02-P17	Sep-03	Aug-06	356,876	81,363	438,239	Observatory	Geoffrey Geupel		Geomorphic and Geological Manping	This project will establish the geomorphic and geologic framework
					development of a										for Restoration Planning, Sacramento-	necessary for floodplain restoration, evaluation of selective levee
1					comprehensive monitoring,										San Joaquin Delta Region	breaching, and planning set-back levee construction on the lower
					program (CMARP) for											Associates, Inc. Monitoring/Planning. Project 40% completed.
					terrestrial habitats and species											
1					fish and wildlife agencies.											
					Conduct range wide surveys											
					for all "R" and "r" covered plants and animals in the											
	112 RES				MSCS Focus Area.	ERP-02-P45	Jun-03	Jun-05	120,000	none	120,000	William Lettis and Associates	William Lettis			

_																
	.	e					CON	TRACT								
	Ibel	- 12												able		
	Nun	et IO			MS Components or									sntifi		
	NS	jo I	Milestone	ERP Targets taken from FRPP Vol 2	Questions for field	NUMBERS			CALEED Award	Cost Share	Lotal Project Cost	Applicant	Investigator	Dua	Project Name	Comments
F	_				112 A Status of the										At-Risk Plant Species, Habitat	Development of a cooperative program to manage and restore 17.25
					development of a										Restoration and Recovery, And Non-	acres of alkali vernal pools and ~ 250 of adjacent buffer areas in the
					comprehensive monitoring,										Native Invasive Species Management	Sulsun Marsh/North San Francisco Bay EMZ. Ties in with Sulsun Marsh/North San Francisco Bay EMZ by way of Crampton's tuctoria
					program (CMARP) for											Monitoring, Planning, and Implementation; 27% completed. 320
					terrestrial habitats and species											acres of alkali vernal pools and grassland (17.25 acres of alkali
					fish and wildlife agencies.											vernal pools and ~ 250 of adjacent buffer)
					Conduct range wide surveys											
					for all "R" and "r" covered							Environmontal				
	8	ŝ			MSCS Focus Area.							Science				
	11	R.				ERP-02-P46	Jul-03	Jun-06	400,000	0	400,000	Associates	Niall McCarten			
					112 A Status of the development of a										Invasion dynamics of perennial	This research will provide a mechanistic understanding of how peoperweed is able to invade a wetland site, and aid in the
					comprehensive monitoring,										their consequences for protection of	development of a protocol to control this invasive, and help protect
					assessment and research										natural and restored wetlands in the SF	remaining intact systems, provide a means for reducing spread,
					terrestrial habitats and species										Estuary.	marsh habitat from Petaluma Marsh in western San Pablo Bay Area
					populations acceptable to the											eastward to decker Island in the lower Sacramento-San Joaquin Delta.
					fish and wildlife agencies.											Kim Webb, USFWS. Project not complete.
					for all "R" and "r" covered											
					plants and animals in the											
	5	SES			MSCS Focus Area.		lan-04	Mar-05	178 701	0	178 701		Theodore Foin			
					112 A Status of the		our of	Mar 00	110,101	Ű	110,101	CO Davio	Theodore Form		Development of a River Corridor	The project tasks are: 1) Creates a consensus building process to
					development of a										Management Plan for the Lower	resolve critical scientific issues, coordinator activities and plans among
					assessment and research										American River	participation in the development of the River Corridor Management
					program (CMARP) for											Plan (RCMP); 2) Identify fisheries and aquatic habitat restoration needs
					terrestrial habitats and species											and priorities; 3) involve developing an integrated riparian vegetation and preventive erosion control program, a master plan for riparian and
					fish and wildlife agencies.											terrestrial habitats, and an infrastructure redesign and relocation
					Conduct range wide surveys											program for the LAR. John Nelson, Department of Fish and Game.
					plants and animals in the											Planning; project completed.
					MSCS Focus Area.							Sacramento				
												City-County				
												Metropolitan				
	2	ŝ										Water Planning				
	7	2			112 A Status of the	ERP-99-N21	Apr-01	Apr-02	250,000	550,000	800,000	(Water Forum)	Susan Davidson		Feasibility Study of the Ecosystem &	Feasibility study will evaluate the potential to create ecosystem, water
					development of a										Water Quality Benefits Associated with	quality/supply, recreational, and other benefits at lower Sherman Lake,
					comprehensive monitoring,										Restoration of Franks Tract, Big Break,	Big Break, and Franks Tract, by modifying emergent levees to inhibit
					assessment and research program (CMARP) for										and Lower Sherman Lake	salt trapping and restoring tidal marsh habitat. The study will investigate how restoration of tidal marsh with dendritic channels and
					terrestrial habitats and species							Sacramento				tidal flows can increase habitat values for fish and wildlife, including
					populations acceptable to the							Regional				protect species, and inhibit invasive plants, such as Brazilian
					Conduct range wide surveys							Sanitation				hydrology and constituent transport will be included. Curt
					for all "R" and "r" covered							District and				Schmutte, Department of Water Resources. Feasibility Study.
		'n			plants and animals in the							Department of Water				Project not completed due to contract problems.
	112	RE			MOOD T OCUS AICA.	ERP-01-C05	Oct-04	Sep-04	1,218,105	none	1,218,105	Resources	Curt Schmutte			
					112 A Status of the development of a										he Influences Flood Regimes,	PORTION OF MILESTONE ADDRESSED: Contributes to the development of the methodology for evaluating data flow and
					comprehensive monitoring,										on the Links between Aquatic &	hydrodynamic patterns. Research. Project not completed. They
					assessment and research										Terrestrial Systems.	are 1 1/2 years into the project
I					program (CMARP) for terrestrial habitats and species											
					populations acceptable to the											
					fish and wildlife agencies.											
					for all "R" and "r" covered											
					plants and animals in the							University of				
	12	SES			MSCS Focus Area.	EPP-01-N01	lan-02	Dec-04	2 521 236		2 521 236	California,	Dr. James Quinn			

a.		ype					CON	TRACT	-					ble		
Nim	GION	oject T		ERP Targets taken from	MS Components or Questions for field	ERP PROJECT	START				Total Project		Principal	uantifia Nits		
ž		۲,	Milestone	ERPP Vol 2	personnel	NUMBERS	DATE	END DATE	CALFED Award	Cost Share	Cost	Applicant	Investigator	σī	Project Name	Comments
					development of a										Delta: Factors Controlling Production	the control of this invasive weed in the Delta. The project area is 3,300
					comprehensive monitoring,										and Fragment Viability	acres; does not eradicate any Egeria densa . Kim Webb. Project not
					program (CMARP) for											completed.
					terrestrial habitats and species											
					fish and wildlife agencies.											
					Conduct range wide surveys											
					plants and animals in the											
9	s Sa				MSCS Focus Area.		lup 04	May 05	327 037	nono	32 037	Portland State	Mark Systma			
					112 A Status of the	LINF-02-F 10	Juli-04	iviay-05	521,951	none	32,937	University	Iviark Systilla		Restoration and Monitoring of	Approximately 45 acres natural riparian habitat. John
					development of a										Riparian Habitat Corridors Along	Brodie,Project 15% complete
					assessment and research							San Joaquin			the Lower Mokelumine River	
					program (CMARP) for terrestrial habitats and species							Resource				
5					populations acceptable to the	555 00 500						Conservation		~45		
÷					fish and wildlife agencies 112 A Status of the	ERP-02-P20	Aug-03	Jul-06	859,405	192,500	1,051,905	District	John Meek	acres	Big Break and Marsh Creek Water	Planning for restoration of up to <30 acres of intertidal marsh in the
					development of a										Quality and Habitat Restoration	Central and West Delta. 30 acres of various habitat types to be
					assessment and research										Program	restored. <i>Monitoring. Project not completed.</i>
					program (CMARP) for											
					populations acceptable to the											
					fish and wildlife agencies.											
					for all "R" and "r" covered											
					plants and animals in the							California State				
11					MSCS Focus Area.	ERP-02D-P52			357,146	none	357,146	Coastal	Mary Small			
					112 B Status of the										Development of a River Corridor	The project tasks are: 1) Creates a consensus building process to
					comprehensive monitoring,										American River	various agencies and stakeholder forums, and guide broad
					assessment and research											participation in the development of the River Corridor Management
					habitats and species											and priorities; 3) involve developing an integrated riparian vegetation
					populations acceptable to the											and preventive erosion control program, a master plan for riparian and
					Conduct range wide surveys											program for the LAR. John Nelson, Department of Fish and Game.
					for all "R" and "r" covered											Planning; project completed.
					MSCS Focus Area.							Sacramento				
												City-County				
												Metropolitan				
5	s Si					EDD 00 N21	Apr 01	Apr 02	250.000	550.000	800.000	Water Planning				
—	- *				112 B Status of the	ERF-99-INZ	Apr-01	Apr-02	200,000	550,000	000,000	(vvater Forum)	Susan Daviuson		Continue to extend outmigrant survey	Objective: The primary objective is to salvage juvenile fish at the
					development of a										and salvage at the Hallwood-Cordua	Hallwood-Cordua fish screen and identify the general attributes of
					assessment and research										the summer of 2000	River, including timing, relative abundance, fish condition, and length
1					program (CMARP) for aquatic											frequency, in order to help guide habitat restoration and management actions on the lower Yuha River. Likely for funding in EY2000
1					populations acceptable to the											actions of the lower ruba rubar. Likely for furtuing in F12000.
1					fish and wildlife agencies.											
1					for all "R" and "r" covered											
					plants and animals in the								Cesar Blanco			
112					MOUS I UCUS AIEd.	AFRP-00-33						AFRP	USFWS			

112	112	112	112	112	MS Number
RES	RES	RES	RES	RES	REGION
					Project Type
					Milestone
					ERP Targets taken from ERPP Vol 2
112 B Status of the development of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.	112 B Status of the development of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.	112 B Status of the development of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.	112 B Status of the development of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.	112 B Status of the development of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.	MS Components or Questions for field personnel
ERP-98-C02	ERP-96-M27	ERP-96-M26	AFRP-00-24	AFRP-00-35	ERP PROJECT NUMBERS
Jul-98	Apr-97	Oct-97			CON START DATE
Oct-99	Sep-98	Sep-98			TRACT
194,870	24.500	35.000			CALFED Award
none	none	none			Cost Share
194,870	24.500	35.000			Total Project Cost
Regents of the University of California	CSU Sacramento	Department of Water Resources	AFRP	AFRP	Applicant
Dr. Joan Lindberg	Amy Harris	none listed	Jeff McLain USFWS	Jeff McLain USFWS	Principal Investigator
					Quantifiable Units
Culture of Delta Smelt	North Deita Area - Inventory of Rearing Habitat for Juvenile Salmon	Prospect Island - Develop Monitoring Plan	Analyze archived San Joaquin Basin chinook salmon scale samples and develop a comprehensive database accessible to interested parties	Evaluate use of PHABSIM/2D modeling of spawning and rearing habitat to assess benefits of channel restoration on the Merced River	Project Name
This project will develop a culture system for all life stages of delta smelt, characterize parameters, and production capabilities, and initiate a supply of live material for research projects concerned with delta smelt. Serge Doroshov, UC Davis. Research; project completed.	This project will provide an indication of whether restored shallow water habitats are successful in terms of fish use of the area. This was a Masters Thesis. Unable to contact. Phone number disconnected. No forwarding number.	This is a monitoring plan will provide information on ecological processes, success of the project through use of habitat by targeted animals, and address a research question regarding the production of organic material. Gina VanKlompenburg, CDFG. Planning; a Monitoring Plan was developed prior to the project being on hold. This project was supposed to restore shallow water fresh emergent wetlands by breaching levees to restore tidal action. Additionally, it was to restore/replant riparian habitat on internal islands. An unplanned and misplaced breach prior to the project getting started stalled the project. No implementation has taken place to date.	Objective: Process and analyze the existing scale samples for the San Joaquin Basin to determine age structure of returning adult fall-run Chinook salmon. This information will provide managers with a clearer understanding of the variables that affect the ultimate production of the San Joaquin salmon. Results from this project will provide the information needed to carry out a detailed cohort analysis. Detailed <i>inventory</i> , <i>reabsorption assessment</i> , <i>and scale reading is nearly</i> <i>complete for all Chinook scales between 1976 and 1999</i> .	Objective: The primary objective of the project is to use a 2- dimensional hydraulic and topographic model to help evaluate benefits to salmon spawning and rearing habitat created by a large scale channel restoration project on the Merced River. Pre-project monitoring for the PHABSIM 2-D modeling effort occurred in the summer and fall of 2000 with FY00 funds, and in 2001 with FY01 funds. Post project monitoring started in the spring of 2002.	Comments

er.		Ape				CON	TRACT						ble		
S Numb	EGION	oject T	ERP Targets taken from	MS Components or Questions for field	ERP PROJECT	START				Total Project		Principal	uantifia nits		
Σ	2	<u>a</u> Milestone	ERPP Vol 2	personnel 112 B Status of the	NUMBERS	DATE	END DATE	CALFED Award	Cost Share	Cost	Applicant	Investigator	σΞ	Project Name Contaminant Effects on Smelt	Comments Research and monitoring of listed species. William Bennett . UCD
				development of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitate and spacies											Bodega Bay. Research / Monitoring. Project completed.
				populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered											
12	S			plants and animals in the MSCS Focus Area.							UCD (Bodega	William A.			
÷	2			112 B Status of the	ERP-97-C06	Jul-98	Jun-01	437,326	none	437,326	Bay)	Bennett		Evaluation of the Potential Impacts of	This project will provide information regarding the relationship between
				development of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species										the Chinese Mitten Crab on the Benthic Community in the Sacramento-San Joaquin Delta and Suisun Bay	the Chinese mitten crab and the benthic invertebrate community with the Bay-Delta. <i>Kim Webb, USFWS. Unknown if project completed.</i>
	ø			populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Encus Area		none					The Department of Water				
112	RE				ERP-99-B18	listed	Mar-03	191,799	70,541	262,340	Resources	Cindy Messer			
112	RES			112 B Status of the development of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.	ERP-01-N32	Jul-01	Jul-03	126,000		126,000	NHI	John Cain		Watershed Stewardship in Marsh Creek	Baseline monitoring will be conducted on aquatic and terrestrial species. <i>John Cain, NHI. Monitoring</i>
112	RES			112 B Status of the development of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.	ERP-99-N15	May-00	.lun-02	227.000		227.000	San Joaquin County Resource Conservation District	John Meek		Continuation of the Lower Mokelumne River Watershed Stewardship Program	This project will prepare the Lower Mokelumne River Watershed Program Monitoring and Evaluation Program. <i>John Brodie, Project</i> <i>complete</i>
12	ES			112 B Status of the development of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.	ERP-99-012	May 02	Jun-02	227,000		800,000		Jorni Meek		Comprehensive Monitoring Assessment and Research Program (CMARP)	Monitoring and Research; Completed. Leo Winternitz, The Water Forum

							TRACT								
her	Type					CON	TRACT						able		
Num	ect .		EBD Torgete taken from	MS Components or		OTADT				Total Brainst		Bringing	intifi Is		
Β	Proj	Milestone	ERPP Vol 2	personnel	NUMBERS	DATE	END DATE	CALFED Award	Cost Share	Cost	Applicant	Investigator	Qua	Project Name	Comments
				112 B Status of the development of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the										Demonstration Project for Delta In- Channel Islands	Project will monitor the effects biotechnical erosion control h aquatic and terrestrial species. Marcia Brockbank, Associa Bay Area Governments. Implementation. Webb Tract #3 completed. They had to do an amendment since the float booms failed. Amendment is for 2 years.
112	RES			fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.	ERP-01-N13	Jul-01	Jul-04	928,150	411,100	1,339,250	Association of Bay Area Governments	Marcia Brockbank	2159 LF		
				112 B Status of the development of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.										Effects of Introduced Species of Zooplankton and Clams on the Bay- Delta Food Web	Kim Webb, USFWS. Unknown if project completed. The e the project will be to determine how food web alteratic influence the key fish species that depend on that food w what rehabilitation efforts and actions might be effective context of that altered food web. Tasks include examina gut contents and condition of fish to assess the extent to fish prey on introduced versus native species; zooplan experiments will be conducted to determine growth a production rates of common species of zooplankton; pre experiments will be conducted to examine selective preda fish on alternative zooplankton prey, and predatory relatio among the zooplankton; and growth rate of key species i measured and the degree of food limitation will be deter
2	ES						Mar-04				San Francisco State				
				112 B Status of the development of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys	LIVE-39-1403		amenueu	000,004		000,004		win Kinnerer		Tyler Island Restoration	Conduct scientific monitoring and experimental program to im habitat values as measured by increases in plant cover and ge habitat heterogeneity and also the contribution of instream livin, to fish and macroinvertebrates. Jeff Hart, Hart Restoration, Implementation. Restore SRA and riparian habitat along 4, of Georgiana Slough and 3,000 ft along Mokelumne River o Island; total 7,500 ft. Also 2.3 acres of tidal emergent wet Project completed.
12	ES			for all "R" and "r" covered plants and animals in the MSCS Focus Area.		1.1.00	Dec 01	000 000		005 000	Habitat Assessment & Restoration	laff Llavt			
				112 B Status of the development of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered	ERF-9/-N13	<u> 701-98</u>	DeC-01	663,202	none	003,202	Northwest	јен нап		Evaluation of Increasing Tagging Levels for Chinook Salmon and Steelhead and a Demonstration Project on Mass Marking	Contributes to research and monitoring salmon. This project evaluate current tagging practices and demonstrate a technique mass marking of hatchery produced salmon, to support subser evaluating of harvest practices. Tasks include the evaluation hatchery stocking, tagging, recovery data, alternative taggin approaches and concomitant benefits/risks, and the demonstr tagging of hatchery stock at various Central Valley hatcheries. <i>Knutson, Northwest Marine Technology. Monitoring; Tagg complete. Data still needs to be analyzed.</i>
12	KES			plants and animals in the MSCS Focus Area.		Aug 02	lup 02	607 632	0	607 632	Marine Technology,	Guy Thorphurch			
				112 B Status of the development of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCE Ecoura Acce	EKE-90-010	Aug-96	Juni-UZ	091,032	U	097,032	Stillwator	Guy momourgn		Merced River Corridor Restoration Project Phase III	This project will develop a long-term restoration and monitoring Project completed. The Merced River Corridor Restoration was developed in Phase III. Jeff McLain, USFWS.
112	Ϋ́Ε		1	MOUS I UCUS Aled.	ERP-00-E05	Feb-00	Sep-02	260.351	1	260.351	Sciences	Jennifer Vick			

MS Number	REGION	ect 17be Milestone	ERP Targets taken from	MS Components or Questions for field personnel	ERP PROJECT			Cost Share	Total Project	Applicant	Principal	Quantifiable Jnits	Project Name	Comments
12	RES			112 B Status of the development of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.	FRP-98-F12	Apr-99 Apr-	0 159.000	none	159.000	San Joaquin	John Meek .ir		Develop Local Watershed Stewardship Plan for the Lower Mokelumne River	This project will monitor neotropical birds, wildlife and riparian vegetation. <i>John Brodie. Project completed.</i>
2	<u> </u>			112 B Status of the development of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.									Evaluate Use of a Two-dimensional Hydraulic and Habitat Simulation Mode to Assess Benefits of Channel Restoration	This project will quantify features of fall-run chinook salmon spawning and rearing habitat, before and after restoration, in the Robinson restoration project on the Merced River.
11	RE			112 B Status of the development of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.	CVPIA-01-F11		11,000		11,000	USFWS University of California,	Mark Gard		Fish Treadmill-Developed Fish Screen Criteria for Native Sacramento-San Joaquin Watershed Fishes	The Fish Treadmill project is an ongoing, multi-agency, targeted research program that addresses the uncertain impacts of water diversions and fish screens on priority fish species (e.g., delta smelt, splittail, chinook salmon, steelhead). The project objective is to provide the data necessary to evaluate and improve aspects of fish protective facility design and operation at the State Water Project (SWP), Central Valley Project (CW, including the Tracy Fish Test Facility, TFTF), and other existing and proposed fish screen facilities (e.g., Hood-Mokelumne Connection). This proposal requests next-phase funding to continue this valuable research program and to expand its scope to include other priority fish species (e.g., sturgeon) and complementary investigations on the effects of debris on fish screen function and fish-fish screen interactions.
112 1	RES			112 B Status of the development of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.	ERP-00-B06	Sep-00 May	2 211,164		205,013 (reduced by modification)	University of California, Davis	Joseph J. Cech, Jr		Biological Assessment of Green Sturgeon Phase II	Monitoring and Research. Project completed.
112	RES			112 B Status of the development of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.	ERP-01-N50	Jul-01 Jun-	4 576.422	none	576.422	University of California, Davis	Dr. Charles R. Goldman		Food Resources for Zooplankton in the Sacramento-San Joaquin River Delta	This project will investigate how copepods utilize the food resources available in different Delta habitats and compare the findings to those for cladocerans. Anke Muller-Solger, UC Davis Monitoring/Research. The project is 85% completed. The field component is completed.

ber		Type					CON	TRACT	-					able		
MS Num	REGION	Project 7	Milestone	ERP Targets taken from ERPP Vol 2	MS Components or Questions for field personnel	ERP PROJECT	START DATE	END DATE	CALFED Award	Cost Share	Total Project Cost	Applicant	Principal Investigator	Quantifia Units	Project Name	Comments
					112 B Status of the development of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered								g		Shallow Open Water Habitats: Hydrodynamics and Benthic Grazing	Project will improve scientific understanding of the linkages between populations of at-risk species and inflows, especially relative to regulatory measures like X2. Stephen Monismith, Stanford University, Department of Civil and Environmental Engineering. Monitoring/Research. Project not completed.
112	RES				plants and animals in the MSCS Focus Area.	ERP-02-P22			471,661	none	471,661	Stanford University	Stephen Monismith			
					112 B Status of the development of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the							The Regents of	About Holdon		Delta Smelt Culture and Research Program	This project will develop methods for the successful culture of delta smelt so that a reliable supply of all life stages is available to the research community. Serge Doroshov.Project is approximately 50% complete.
112	RES				MSCS Focus Area.	ERP-02-P31	Nov-03	Oct-05	400,000	none	400,000	of California	Elahi		Primary Production in the Delta:	This project will improve the understanding of mechanisms governing
112	RES				development of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.	ERP-02-P33	Jul-03	Jun-06	315,811	none	315,811	The Regents of the University of California	Ahmad Hakim- Elahi		Monitoring, Design, Data Analysis and Forecasting	phytoplankton primary production and biomass in the Delta. Allan Jassby. Project is not complete, due to contract delays. However, the project has begun.
112	RES				112 B Status of the development of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.	ERP-02-P34	Aug-03	Jul-05	424,246	none	424,246	The Regents of the University of California	Ahmad Hakim- Elahi		Restoration of Sacramento Perch to San Francisco Estuary	The research project will develop strategies to restore Sacramento perch to self-sustaining wild populations in the San Francisco Estuary, and to assure the Sacramento perch long-term future in Central California. <i>Peter Moyle. Project incomplete due to contracting</i> <i>difficulties.</i>
112	RES				112 B Status of the development of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.	ERP-02-P35	Jul-03	Jun-04	150,047		150,047	The Regents of the University of California	Ahmad Hakim- Elahi		Selenium Effects on Health and Reproduction of White Sturgeon, Acipenser transmontanus, in the Sacramento-San Joaquin Estuary	This project will elucidate the effects of selenium bioaccumulation on white sturgeon in the San Francisco Bay-Delta. Serge Doroshov . The project is looking at the effects of Se on white sturgeon only . The project is incomplete and has received a short extension .

					1					1	1	1			
Ŀ		ed				CON	TRACT						e		
, p	z	τ τ		MS Components or									ifiat		
n Z	00)je c	ERP Targets taken from	Questions for field	ERP PROJECT	START				Total Project		Principal	anti		
ΒS	RE	A Milestone	ERPP Vol 2	personnel	NUMBERS	DATE	END DATE	CALFED Award	Cost Share	Cost	Applicant	Investigator	ng n	Project Name	Comments
				112 B Status of the										McCormick Williamson Tract Phase II	Program to establish, restore, and maintain an unspecified amount
				development of a										Monitoring Program	riparian nabitat to improve floodplain nabitat, saimonid shaded river
				assessment and research											Companion proposal submitted by DWR (McCormick-Williamson Tra
				program (CMARP) for aquatic											Restoration Planning, Design and Monitoring Program: II). (Also se
				habitats and species											ERP-99-03, ERP-99-F04, ERP-00-F07, ERP-02-P25). <i>Planning.</i>
				fish and wildlife agencies.											conditions that have lead to the current condition of the propert
				Conduct range wide surveys											The pre-assessment of the conditions gave researchers a bette
				for all "R" and "r" covered											understanding of natural processes that occurred in the past the
				plants and animals in the MSCS Focus Area											are valuable for planning for the future. It is unclear whether of not these tools are being utilized and how valuable they might h
															in current planning efforts.
											I initiantity of				
	s										California.				
112	RE				ERP-00-F08	May-98	Sep-03	556,200		556,200	Davis	Jeffery Mount			
				112 B Status of the										Lower Calaveras River Chinook	This project will provide information that can be used in the prelimina
				development of a										Salmon and Steelhead Life History	development of a technically sound and implementable, consensus- based plan to restore self-sustaining populations of chinook salmon
				assessment and research										Emiting Pactors Assessment	and steelhead to the Calaveras River. Trevor Kennedy. Planning
				program (CMARP) for aquatic											Year 1 of project has been completed. They filed an extension of
				habitats and species											the second phase which should be completed by Dec 2005.
				fish and wildlife agencies.											
				Conduct range wide surveys											
				for all "R" and "r" covered							Fishery				
2	ES			MSCS Focus Area.							Foundation of				
÷	~			112 B Status of the	AFRP-01-07			314,704		314,704	California	Patricia Duran		Distribution and Relationship of	Will meet the milestone if the project was completed
				development of a										Resident and Anadromous Central	
				comprehensive monitoring,										Valley Rainbow Trout	
				assessment and research											
				habitats and species											
				populations acceptable to the											
				fish and wildlife agencies.											
				for all "R" and "r" covered											
	6			plants and animals in the							California				
112	RE			MSCS Focus Area.	AFRP-03-05			158,756	158,756		Fish and Game	Kathleen Perry			
				112 B Status of the										Culture of Delta Smelt Phase II and III	Research on MSCS listed species. <i>Monitoring and Research.</i>
				development of a comprehensive monitoring											Project is 70 percent complete. Culture phase is done.
				assessment and research						1		1			
				program (CMARP) for aquatic						1		1			
				habitats and species						1		1			
				fish and wildlife agencies						1		1			
				Conduct range wide surveys						1		1			
				for all "R" and "r" covered							University of				
2	ŝ			plants and animals in the MSCS Focus Area							California,				
7	R			112 B Status of the	ERP-00-B03	Jul-00	Oct-03	559,446	431,606	991,052	Davis	Serge Doroshov		Albembro Crook Watershed CDMD	Project will develop a watershed management program for Albembr
				development of a						1		1		Program	Creek. Plan will address restoration of degraded aquatic and riparia
				comprehensive monitoring,						1		1			communities, soil erosion, non-point pollution, and prevention of
				assessment and research											wildfire. Project complete. Planning project. Carla Koop, CCWD
				habitats and species						1		1			
				populations acceptable to the						1		1			
				fish and wildlife agencies.											
				Conduct range wide surveys						1		1			
1				plants and animals in the						1	Contro Cont	1			
12	SES			MSCS Focus Area.	FRP-98-F17	Apr-99	Apr-00	138 000		138.000	Water District	Carla Koon			

umber	NO	ct Type		MS Components or		CONTRACT						tifiable		
MS N	REGIO	ୁର୍ଦ୍ଦ ଜୁନ୍ମ ଜୁନ୍ମ	ERP Targets taken from ERPP Vol 2	Questions for field personnel	ERP PROJECT NUMBERS	START DATE END D	ATE CALFED Awar	d Cost Share	Total Project Cost	Applicant	Principal Investigator	Quant Units	Project Name	Comments
				112 B Status of the development of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies.									South Napa River Tidal Slough and Floodplain Restoration Project	Task 2.9 Monitoring and data collection. Development of a plan and ongoing monitoring. The monitoring and adaptive management plan will be provided to CALFED for approval and consistency with CMARP Project not complete. Grants to purchase and build have been obtained, EIR has been completed, Restoration has not begun; Carl Wilcox, CDFG.
~	s			Conduct range wide surveys for all "R" and "r" covered						City of American				
112	RE			Plants and animals in the MSCS Ecous Area 112 B Status of the development of a comprehensive monitoring	ERP-99-B11	Apr-00 Sep-	1,520,000	390,000	1,910,000	Canyon	John Wankum		Effects of Introduced Clams on the Food Supply of Bay-Delta Fish Species	Project nearly complete waiting on final deliverable. Project is foodweb focused research. Kim Webb, USFWS.
112	RES			assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the	ERP-99-F11	Mar-00 Dec.)1 100.490		100,490	SF State University, Romberg Tiburon Center	Wim Kimmerer			
-				MSCS Excuse Area 112 B Status of the development of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys					100,490	Habitat	Win Kinnerer		Georgiana Slough Habitat	This project will develop a monitoring plan for aquatic and terrestrial species. Jeff Hart, HART Restoration, Inc. Implementation. Project completed.
	s			plants and animals in the MSCS Focus Area.						and Restoration				
112 112	RES			112 B Status of the development of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.	ERP-99-N03 ERP-99-N06	Nov-99 Mar-	<u>1,100,000</u> 13 1,546,0 <u>16</u>	none	1,100,000	UC Davis	Jeff Hart		Linked Hydrogeomorphic-Ecosystem Models to Support Adaptive Management: Cosumnes-Mokelumne Paired Basin Project	This project will develop a paired-basin water quality and aquatic food resource monitoring and modeling program. This project will also conduct sampling programs with emphasis on assessment of the benefits of restoration efforts within the basins. Jeff Mount, UC Davis. Research and Planning; The project is wrapping up. The final reports are being finalized and should be available soon.
112	RES			112 B Status of the development of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.	ERP-97-N05	Mar-99 Jun-	0 222,530	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. <i>John Nelson, Department of Fish and</i> <i>Game. Planning; project completed.</i>

)er	ype					CON	TRACT						ble		
Numt	GION oject T		ERP Targets taken from	MS Components or Questions for field	ERP PROJECT	START				Total Project		Principal	antifia its		
MS	R R	Milestone	ERPP Vol 2	personnel 112 B Status of the	NUMBERS	DATE	END DATE	CALFED Award	Cost Share	Cost	Applicant	Investigator	α'n	Project Name Auburn Ravine/Coon Creek	Comments
				development of a comprehensive monitoring,										Restoration Planning	riparian and aquatic habitats. John Nelson, Department of Fish and Game. Planning; project completed.
				program (CMARP) for aquatic habitats and species											
				populations acceptable to the fish and wildlife agencies.											
				Conduct range wide surveys for all "R" and "r" covered							Placer County				
112	RES			MSCS Focus Area.	ERP-97-N05	Mar-99	Jun-00	222,530	0	222,530	Planning Department	Loren Clark			
				112 B Status of the development of a										Lassen National Forest Watershed Stewardship Within the Anadromous	The LNF watershed stewardship project includes three watershed- based restoration tasks within the anadromous watersheds of Deer.
				comprehensive monitoring,										Watersheds of Butte, Deer, and Mill	Mill, Butte Creeks. Tasks 1a and 2a include 44 extensive sediment
				program (CMARP) for aquatic										Cieeks	proposed activities include Colby Creek Meadow condition survey;
				populations acceptable to the											projects, installation of interpretive displays at seven recreation areas
				fish and wildlife agencies. Conduct range wide surveys							United States				along Deer and Mill Creeks, a campground education program at Potato Patch campground, a summer patrol of the Spring-run chinook
				for all "R" and "r" covered plants and animals in the							Department of Agriculture				salmon spawning areas in Deer Creek, and the establishment of Watershed Stewardship education programs at Chester Elementary
				MSCS Focus Area.							Forest Service, Lassen				and High Schools. Ken Roby,USFWS. Implementation of various restoration projects on Butte, Deer ,and Mill Creeks; 66 percent
112	RES				ERP-01-N26	Oct-01	Oct-04	849,845	0	849,845	National Forest (LNF)	Russ Volke			complete.
				112 B Status of the development of a										Chronic Toxicity in Splittail	Research and monitoring. Project 85% complete pending final reports: Silia S.O. Hung
				comprehensive monitoring, assessment and research											· · · · · · · · · · · · · · · · · · ·
				program (CMARP) for aquatic											
				populations acceptable to the											
				Conduct range wide surveys											
5	SES			for all "R" and "r" covered plants and animals in the	FRP-99-N07	.lan-00	.lan-04	673 684	135 994	809 678	UC Davis	Silia S. O. Hung			
				112 B Status of the		oun oo	our or	010,001	100,001	000,010	ee Buile	Cind C. C. Hang		Sonoma Creek Watershed	Fish passage enhancement will restore steelhead spawning and rearing babitat Habitat restoration and enhancement will benefit
				comprehensive monitoring,										Conservancy	steelhead and other aquatic/ riparian species. Project is complex, multi
				program (CMARP) for aquatic											including salmon escapement. water quality, and benthic
				populations acceptable to the											of habitats/species through a volunteer monitoring program. (Project
				fish and wildlife agencies. Conduct range wide surveys											linked to ERP-01-N27) Implementation, monitoring, and research project; Project completed, included riparian restoration, bank
				for all "R" and "r" covered plants and animals in the							Southern				stabilization, pool enhancement, and spawning and rearing habitat improvement. Chris Taylor, Southern Sonoma County
112	RES			MSCS Focus Area.	ERP-00-E04	Jun-00	Nov-03	438,923	143,030	626,953	Sonoma County RCD	Gillian Harris			RCD.
				112 B Status of the development of a										San Joaquin River National Wildlife Refuge Riparian Habitat Protection and	This contract represents Phase I of an overall project to acquire lands along the San Joaquin River for the benefit of fish and wildlife. Four
				comprehensive monitoring, assessment and research										Floodplain Restoration Project	separate parcels will be purchased totaling 6169 acres; this acreage will become part of the SJR NWR. This phase will also include pre-
				program (CMARP) for aquatic habitats and species											restoration planning. A Baseline Biological Inventory was completed as part of this project prior to future phase restoration. Phase II of this
				populations acceptable to the											project will entail earth-moving and restoration. This project was completed it included planning and baseling monitoring. Kim
				Conduct range wide surveys							San Luia				Forrest, USFWS.
				plants and animals in the							National	Kim Farmat			
112	RES			MSUS FOCUS Area.	ERP-97-B04	Aug-98	Mar-02	10,947,000	10,000,000	20,947,000	Complex	Kim ⊢orrest, Refuge Manager			

r	1 1														
	e					CON	TRACT						Ð		
pe	2 Z												able		
E E	<u>8</u> .ช			MS Components or									tifi		
z	ë <u>ë</u>		ERP Targets taken from	Questions for field	ERP PROJECT	START				Total Project		Principal	its		
Β	R L	Milestone	ERPP Vol 2	personnel	NUMBERS	DATE	END DATE	CALFED Award	Cost Share	Cost	Applicant	Investigator	g P	Project Name	Comments
				112 B Status of the										Biological Assessment of Green	Researching various biological and ecological factors of Green
				development of a										sturgeon in the Sacramento-San	Sturgeon. Monitoring and Research project; 80 percent complete.
				comprehensive monitoring,										Joaquin Watershed	Biological requirements of green sturgeon have been identified.
				assessment and research											Joe Cech Jr., UC Davis.
				program (CMARP) for aquatic											
				habitats and species											
				populations acceptable to the											
				fish and wildlife agencies.											
				Conduct range wide surveys											
				for all "R" and "r" covered											
12	ы́			plants and animals in the											
	LE L			112 P Status of the	AFRF-01-00									Lising Molecular Techniques to	Propose to use molecular and population genetic techniques to
				development of a										Brosonio Constin Integrity of	evaluate hypotheses relating to the following objectives: 1) identify
														Endangered Salmon in a	winter-run individuals prior to artificial propagation 2) develop new
				assossment and research										Supplementation Program	polymorphic molecular markers for use in winter run pediaree and
				program (CMARP) for aquatic										Supplementation Frogram	linkage disequilibrium analyses, 3) genotype returning adult carcasses
				habitats and species											to obtain more precise winter-run size estimates 4) genotype
				populations acceptable to the											outmigrating inveniles to refine run size estimates, 5) assess the
				fish and wildlife agencies											naturally spawning population of winter run in Battle Creek and 6)
				Conduct range wide surveys											investigate further, by verifying models of effective population size, the
				for all "R" and "r" covered							Liniversity of				impact of the supplementation program on the naturally spawning
				plants and animals in the							Colifornio				winter run. Dennis Hedgecock. UC Davis. Planning/Research.
				MSCS Focus Area.							California Redege Merine	Donnio			Project is 95% complete. The final report is pending.
13	ы́				AEDD 01 05			400.000	0	400.000	Laboratory	Hodgocock			· · · · · · · · · · · · · · · · · · ·
	LE L			112 B Status of the	AI KF-01-03			400,000	0	400,000	Laboratory	Heugecock		Sonoma Crook Watershed	Fish passage onbancement will restore steelboad snawning and
				development of a										Conservancy	rearing habitat Habitat restoration and enhancement will benefit
														Conservancy	steelbead and other aquatic/ rinarian species. Project is complex multi
				assessment and research											objective program to include watershed monitoring, assessment tasks
				program (CMARP) for aquatic											including salmon escapement water quality, and benthic
				habitats and species											macroinvertebrates. Specific tasks include monitoring fish passage
				populations acceptable to the											enhancements monitoring of pool enhancement and restoration
				fish and wildlife agencies											Implementation, Monitoring, and Research Project. Project is 70%
				Conduct range wide surveys											complete: streambed restoration projects are in progress, in
				for all "R" and "r" covered							Southern				various stages of completion. Chris Taylor, Southern Sonoma
2	ŝ			plants and animals in the							Sonoma				County RCD.
-	R			MSCS Ecous Area	ERP-01-N27	Oct-01	Oct-05	545,170		545,170	County RCD	David Luther			
				112 B Status of the										Kirker Creek Watershed CRMP	The goals of this project are to facilitate, coordinate, and support the
				development of a										Program	efforts of landowners, municipalities, industry, and citizens of the Kirker
				comprehensive monitoring,											Creek Watershed to develop and write a watershed management plan
				assessment and research											using the Coordinated Resource Management and Planning (CRMP)
				program (CMARP) for aquatic											process. Task 3 includes conducting inventory and monitoring; Task 6
				nabitats and species											includes the writing of a plan. (Note: Contract amendment in place to
				fish and wildlife aparatics											increase the scope of work to include implementation). Planning,
				Conduct range wide out rove											monitoring and education project; 90% complete with the
				for all "D" and "r" apvored											watershed management plan completed. Carla Koop, Contra
N	ŝ			plants and animals in the							Contra Costa				COSIA RCD.
-	RE			MSCS Ecous Area	ERP-01-N29	May-01	Jul-04	198,450	241,895	440,345	RCD	Laura Cossey			
				112 B Status of the										Juvenile Salmon Migratory Behavior	This project will improve the technical understanding of juvenile salmon
1				development of a										Study	outmigrations behavior through the Delta. Dave Vogel, Research
1				comprehensive monitoring,											
1				assessment and research											
1				program (CMARP) for aquatic											
				habitats and species											
I				populations acceptable to the											
I				tish and wildlife agencies.											
				Conduct range wide surveys							Natural				
	s			TOF all "R" and "r" covered							Resource				
112	Ш И			plants and animals in the	ERP-01-N48	Sep-01	Jul-03	210.000	none	210,000	Scientists. Inc.	David Vogel			
				112 B Status of the				,000		,000				Bahia Acquisition and Tidal Wetland	Task 5.3: Monitoring. Development of a monitoring plan to evaluate
1				development of a										Restoration	the physical and biological evolution of the restored site against
				comprehensive monitorina.											established performance measures.
1				assessment and research											
1				program (CMARP) for aquatic											
1				habitats and species											
1				populations acceptable to the											
1				fish and wildlife agencies.											
1				Conduct range wide surveys											
1				for all "R" and "r" covered							Maria Arritote				
12	ES			plants and animals in the		lun 00	lun 00	2 245 000	12 014 074	17 150 074	Narin Audubon	Barbara Calary			
÷	Ř	1	1	MECE Foous Area	ERP-02-P14	Jun-03	Jun-06	3,345,000	13,814,674	17,159,674	Society	Barbara Salzman		1	

er	ed/					CON	TRACT						ole		
qunN	GION ject T ₃		EPP Targets taken from	MS Components or		STADT				Total Broject		Brincipal	antifial ts		
MS	Pro	Milestone	ERPP Vol 2	personnel	NUMBERS	DATE	END DATE	CALFED Award	Cost Share	Cost	Applicant	Investigator	Qua Unii	Project Name	Comments
				112 B Status of the development of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the										Determining the Mechanisms Relating to Freshwater Flow and Abundance of Esturine Biota (The Fish-X2 Relationships)	Determining the Mechanisms Relating to Freshwater Flow and Abundance of Esturine Biota (The Fish-X2 Relationships). <i>Wim</i> <i>Kimmerer, Romberg Tiburon Center. Monitoring/Planning.</i>
				fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered											
112	RES			plants and animals in the	ERP-02-P19	Feb-04	Jul-06	509.222	none	509.222	Romberg Tiburon Center	Wim Kimmerer			
				112 B Status of the development of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies.										Life History and Stock Composition of Steelhead Trout	Project 20 percent complete. Needed permits to start project. Monitoring and Research. Yuba County Water Agency funded a downstream migrant steelhead study.
2	B			Conduct range wide surveys for all "R" and "r" covered plants and animals in the							Jones and Stokes	William T.			
	<u>R</u>			MSCS Eccus Area 112 B Status of the development of a	ERP-98-N03	Sep-99	Jun-04	120,000	180,000	300,000	Associates	Mitchell		Genetic Comparison of Steelhead Stocks in Clear Creek	90 percent completed. Written report is all that remains. Monitoring and Research
12	ES			comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the											
12	RES			NECCS Ensue Area 112 B Status of the development of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the	ERP-98-C12	Apr-99	Sep-04	60.801	0	60.801	USEWS	Kurt Brown		Spawning Areas of Green Sturgeon in the Upper Sacramento River	Monitoring and Research; project completed.
112	RES			MCCS Excuse Area 112 B Status of the development of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Excuse Area	ERP-98-B25	Mar-99	Oct-04	230,255	188,255	418,510	Fishery Foundation of California	Patricia Duran		Cosumnes River Salmonid Barrier Program	The project will involve the design and construction of modifications to both of Granlees Diversion Dam fish ladders, a flow barrier wall on the left bank dam to eliminate misdirecting attraction flows that occur, and low fish passage structures on three summer dam/low flow crossings that exist in the lower river. <i>Trevor Kennedy, Fishery Foundation of California. Implementation; project completed. No habitats. 3</i> <i>small dams, a box culvert, and a fish ladder</i>
112	RES			112 B Status of the development of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MCCS Engine Area	ERP-98-C14	Mar-99	Aug-02	150,000	0	150,000	USFWS (Red Bluff)	James G. Smith		Monitoring Spring and Winter Run Chinook Salmon and Steelhead in Butte Creek	Monitoring; project completed.

						1				1						
2		e					CON	TRACT						e		
, a	z	₹												liab		
I N	<u></u>	ect			MS Components or						T. (.) D		Balancia d	s ntii		
SI SI	Ш Ш	ō	Milestone	ERP Targets taken from	Questions for field	ERP PROJECT	DATE		CALEED Award	Cost Shara	Total Project	Applicant	Principal	Juit	Broject Name	Comments
		<u>a</u>	Milestone	ERFF VOIZ	112 B Status of the	NUMBERS	DATE	END DATE	CALFED Awaru	COSt Share	COSL	Applicant	investigator	60	Battle Creek Protection and	One of the project goes is to protect long-term sustainability of
					development of a										Stewardship	freshwater fish habitat that supports various life cycle stages of Pacific
					comprehensive monitoring,											Lamprey, Chinook salmon and Steelhead trout by purchasing
					assessment and research											conservation easements on over 6,800 acres of habitat lands.
					program (CMARP) for aquatic											Project not complete, still negotiating on properties. One
					habitats and species											property may close in fall. Acquisition
					fish and wildlife agencies											
					Conduct range wide surveys											
	~				for all "R" and "r" covered							The Nature				
12	RE				plants and animals in the	IMM-02-I01	Mar-03	?	2,206,625	0	2,206,625	Conservancy	Jake Jacobson			
					112 B Status of the				_,,						San Joaquin River National Wildlife	This contract represents Phase I of an overall project to acquire lands
					development of a										Refuge Riparian Habitat Protection and	along the San Joaquin River for the benefit of fish and wildlife. Four
					comprehensive monitoring,										Floodplain Restoration Project	separate parcels will be purchased totaling 6169 acres; this acreage
					assessment and research											will become part of the SJR NWR. This phase will also include pre-
					habitats and species											part of this project prior to future phase restoration. Phase II of this
					populations acceptable to the											project will entail earth-moving and restoration.
					fish and wildlife agencies.							Contuin				
					Conduct range wide surveys							National				
	ŝ				for all "R" and "r" covered							Wildlife Refuge	Kim Forrest,			
11	RE					ERP-97-B04	Aug-98	Mar-02	10,947,000	10,000,000	20,947,000	Complex	Refuge Manager			
					112 B Status of the										Developing a Genetic Baseline for San	Develop genetic baseline for fall-run chinook salmon. Project
					development of a										Joaquin Fall-Run Chinook Salmon	completed.
					assessment and research											
					program (CMARP) for aquatic											
					habitats and species											
					populations acceptable to the											
					fish and wildlife agencies.											
					for all "R" and "r" covered											
2	ES				plants and animals in the											
÷	2				112 B Status of the	ERP-97-C09	Sep-98	Sep-01	387,003	none	387,003	CDFG	George Neillands		Sacramento River Winter Chinook	Monitoring of Winter -run salmon carcasses on the Sacramento River
					development of a										Salmon Carcass Study	Monitoring: the project is ongoing. Two years completed.
					comprehensive monitoring,										,	
					assessment and research											
					program (CMARP) for aquatic											
					nabilals and species											
					fish and wildlife agencies.											
					Conduct range wide surveys											
	6				for all "R" and "r" covered								James G. Smith			
13	RE				plants and animals in the	ERP-01-N46	May-01	Dec-05	391,019	0	391,019	USFWS	or Matt Brown			
					112 B Status of the						·				Battle Creek Anadromous Salmonid	Monitoring projects on chinook salmon in Battle Creek. Monitoring;
1					development of a										Monitoring Projects	project on-going.
1					comprehensive monitoring,											
1					program (CMARP) for aquatic											
1					habitats and species											
1					populations acceptable to the											
1					fish and wildlife agencies.											
					Conduct range wide surveys											
2	ួ				plants and animals in the								James G. Smith			
7	2				MSCS Focus Area	ERP-01-N45	Jul-01	Jun-05	1,736,073	0	1,736,073	USFWS	or Matt Brown			
1					112 B Status of the										Estimating the Abundance of	monitoring downstream migrating winter-run salmonids. <i>Monitoring;</i>
1					comprehensive monitoring										Chinook Salmon with Comparison to	project on-going.
1					assessment and research										Adult Escapement	
1					program (CMARP) for aquatic											
1					habitats and species											
					populations acceptable to the											
1					Conduct range wide surveys											
1					for all "R" and "r" covered											
13	ES				plants and animals in the		0+01	Sor 04	1 014 000	_	1 014 000		lomos C			
Ļ÷	R				MSCS Focus Area	ERP-01-N44	Uct-01	Sep-04	1,211,903	0	1,211,903	USEWS	James Smith			

-	1 1				1	1			1		1				
5		e.				CON	TRACT						е		
nbe	z	Ā											fiab		
N ^{II}	05	ject	ERP Targets taken from	MS Components or Questions for field		START				Total Project		Principal	antif		
MS	REC	O Milestone	ERPP Vol 2	personnel	NUMBERS	DATE	END DATE	CALFED Award	Cost Share	Cost	Applicant	Investigator	Qui	Project Name	Comments
				112 B Status of the										Stockton East Water and Calaveras	This project will develop plans to monitor existing fish populations,
				development of a										County Water Districts Fish Screen	spawning activity, rearing, and habitat limitations to help determine the
				assessment and research										T actitues	Kauffman, Planning. Project not completed: Amendment 2 weeks
				program (CMARP) for aquatic											ago to include fish ladder.
				habitats and species											
				fish and wildlife agencies.											
				Conduct range wide surveys											
2	ŝ			plants and animals in the							Stockton East				
	R			MSCS Ecous Area 112 B Status of the	ERP-01-N59	Aug-02	Jan-05	670,000	none	670,000	Water District	Kevin Kauffman		Spawning Gravel Introduction	Biological monitoring of the annual fall-run chinook salmon
				development of a										Tuolumne River, La Grange & Old	escapement. <i>Project will distribute approx 12,500 cubic yards of</i>
				comprehensive monitoring,										Basin Bridge	gravel creating habitat for salmonids. Jeff McLain, USFWS. A
				assessment and research program (CMARP) for aquatic											portion of 4 river miles of instream habitat. Project completed. This was one phase of a larger project to restore the course
				habitats and species											sediment supply to the Tuolumne River by introducing clean
				populations acceptable to the											gravels into the river between La Grange Dam and Old Basso
				fish and wildlife agencies. Conduct range wide surveys											Bridge. The overall project would distribute approximately 25- 30.000 cubic vards of gravel at key sites within the upper 4 miles
				for all "R" and "r" covered											of anadromous salmonid habitat on the Tuolumne River. This
				plants and animals in the											particular phase of the project distributed 12,500 cubic yards of
				WISCS FOCUS AIRd.											graver below the La Grange Bridge.
N	្ល														
-	R			110 D Chebus of the	ERP-97-C11	Sep-98	Dec-01	250,975	none	250,975	CDFG	Clarence Mayott		Dutte Creek Die Chies Creek and	Maniferinan 60 normant complete. Drainet will continue
				development of a										Sutter Bypass Chinook Salmon and	Monitoring; 60 percent complete. Project will continue.
				comprehensive monitoring,										Steelhead Evaluation	
				assessment and research											
				habitats and species											
				populations acceptable to the											
				tish and wildlife agencies.											
	~			for all "R" and "r" covered				262454		¢500,500, 00m					
112	RES			plants and animals in the	ERP-01-N49	Jan-02	Dec-04	amended		worth of work	CDFG	Paul Ward			
				112 B Status of the										Clear Creek Juvenile Salmonid	Monitoring of Rotary Screw Trap for juvenile salmonids in Clear Creek.
				development of a										Monitoring Project	Monitoring; the project is ongoing. One year is completed.
				assessment and research											
				program (CMARP) for aquatic				1							
				populations acceptable to the				1							
				fish and wildlife agencies.											
				Conduct range wide surveys											
9	ß			plants and animals in the							105100	James G. Smith			
÷	₩2			MSCS Ecous Area 112 B Status of the	ERP-01-N47	Jul-01	Jun-06	1,009,287	0	1,009,287	USEWS	or Matt Brown		Sacramento River Conservation Area	The project involves biring a manager and office staff for a three-year
				development of a										Program	period to assist in the development and implementation of site-specific
				comprehensive monitoring,											plans for areas with in the Sacramento River Riparian Conservation
1				program (CMARP) for aquatic				1							that will coordinate activities and continue the process of building
				habitats and species				1							broader support and understanding of the goals of the SB 1086
				populations acceptable to the fish and wildlife acception				1							program. Burt Bundy, Sacramento River Conservation Area
1				Conduct range wide surveys				1							funding to continue the efforts of the Sacramento River
				for all "R" and "r" covered											Conservation Area Program to act as a coordinating body
				plants and animals in the MSCS Focus Area.				1							Detween local, state, and tederal agencies regarding restoration activities in the Sacramento River watershed
	s							1							dearrades in the ouslamento have wateraned.
13	ЦШ Ш				ERP-01-N28	Oct-01	Oct-04	541.747	0	541,747	CDWR	Burt Bundy			

	;	ed					CON	TRACT						ole		
444	N				MS Components or						Total Desired		Balancia d	ntifiat s		
Ŭ		Proj	Milestone	ERP Targets taken from ERPP Vol 2	Questions for field personnel	NUMBERS	DATE	END DATE	CALFED Award	Cost Share	Cost	Applicant	Investigator	Qua Unit	Project Name	Comments
					112 B Status of the development of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies.										Health Monitoring of Hatchery and Natural Fall-run Chinook in the San Joaquin River (USFWS)	The project characterized the health and physiological condition of both natural and hatchery juvenile chinook in the San Joaquin River. Project completed. No contact, information derived from Project Reports.
		0			Conduct range wide surveys for all "R" and "r" covered							U.S. Fish and	J. Scott Foott			
1, 1	Ŭ	Ŭ			plants and animals in the	ERP-99-B19	Apr-00	Jan-01	37,860	None	37,860	Wildlife Service	PhD			
		9			112 B Status of the development of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the										Improve Upstream Ladder and Barrier Wier @ Coleman National Fish Hatchery at Battle Creek	Harry Rectenwald, CDFG. Planning / Design; 70 percent complete. Planning and designs are nearly complete.
ţ		Ľ				ERP-99-B08	Dec-99	Oct-05	1,663,400	0	1,663,400	USBR	Carl Werder		Occurrente Disso O Maios Tributarias	
					112 B Status of the development of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.							California State	Oboles W		Sacramento River & Major Tributaries Riparian Corridor Mapping Project	Mapping of nparian 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.
5						ERP-96-M16	Aug-97	Sep-98	1.450.200	0	1.450.200	Chico	Nelson			
	. <u> </u>	2			112 B Status of the development of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all 'R" and 'r" covered plants and animals in the MSCS Focus Area.							Cottonwood Creek Watershed	Vieva		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. <i>Patricia Bratcher, CDFG. Monitoring and</i> <i>Assessment; project completed.</i>
÷	. 0	2			112 B Status of the	ERP-00-E03	Oct-00	Dec-05	443,047	0	443,047	Group	Swearingen		San Joaquin River Chinook Salmon	This project will provide clarification of the age of chipook salmon that
10		3			development of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.	CVPIA-01-F09			54 555		54 555	CDEG	Tim Hevne		Age Distribution	have returned to the rivers in the San Joaquin Basin to spawn.

P		ed					CON	TRACT						ele		
qun	NO	oct Ty			MS Components or									ntifiak s		
MS N	REG	Proje	Milestone	ERP Targets taken from ERPP Vol 2	Questions for field personnel	ERP PROJECT NUMBERS	START DATE	END DATE	CALFED Award	Cost Share	Total Project Cost	Applicant	Principal Investigator	Quar Units	Project Name	Comments
2	g	2			112 B Status of the development of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.										Health Monitoring of Hatchery and Natural Fall-run Chinook Juveniles in the San Joaquin River System and Delta, April - June 2001	This project will characterize the health and physiological condition of both natural and hatchery juvenile chinook in the San Joaquin River System and Delta. <i>Scott Foot, USFWS. Monitoring / Research</i>
112	ŭ	2				CVPIA-01-F10			40,890		40,890	USFWS	J. Scott Foott		One Decembric Onetral Maller	
					112 B Status of the development of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.										Sex-Reversal in Central Valley Chinook Salmon: Occurrence and Population Genetic Consequences	Objective: Perform genetic and histological analyses on fish from the Sacramento and San Joaquin River basins to provide management agencies with information regarding the possible impact sex-reversed fish may have on population persistence of fall-run Chinook. The second year of this project is underway and substantial progress is being made in meeting the objectives of this project. Several hundred adult carcasses from streams in both the Sacramento and San Joaquin drainages were sampled. Fin samples were taken for later analysis for sex specific markers and gonadal samples were taken. In addition 22 crosses were made at UCDavis between 11 females and two males. Females that were normal, apparent sex-reversals, and an intermediate type were used in crosses. These crosses have resulted in juveniles that will be raised to approximately six months of age when they can be identified as to sex. Mortalities have been preserved and will be genotyped to compare departures from random death among and within the families.
112	RES					AFRP-02-08						AFRP	Tricia Parker, USFWS			
112	RES				112 B Status of the development of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.	ERP-01-N22	Sep-98	Jun-01	530,000	120,000	650,000	Central Valley Regional Water Quality Control Board	Karen Larsen		Rainbow Trout Toxicity Monitoring	Research and monitoring of rainbow trout. Karen Larsen, State Water Resource Control Board. Monitoring; There have been contract delays. The work has not yet started.
112	S H	0			112 B Status of the development of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.	ERP-98-C07	Sep-98	Nov-02	400,000	0	400.000	State Water Resources Control Board	Karen Larsen		Fathead Minnow Toxicity Study in the Sacramento River	Monitoring and research of fathead minnows. Karen Larsen, State Water Resource Control Board. Monitoring; project completed.

ar L		Type					CON	TRACT						able		
MIN SM	REGION	Project 1	Milestone	ERP Targets taken from ERPP Vol 2	MS Components or Questions for field personnel	ERP PROJECT NUMBERS	START DATE	END DATE	CALFED Award	Cost Share	Total Project Cost	Applicant	Principal Investigator	Quantifia Units	Project Name	Comments
					112 B Status of the development of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys										Algae Toxicity Study	Monitoring and research. Karen Larsen, Monitoring; project completed.
					plants and animals in the MSCS Focus Area.							State Water Resources				
Ŧ					112 B Status of the development of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.	ERP-98-C08	Jun-01	Nov-02	500,000	0	500,000	Control Board	Karen Larsen		Fish Treadmill Developed Fish Screen Criteria for Native Sacramento - San Joaquin Watershed Fishes	Joseph J. Cech Jr., U.C. Davis. Monitoring and Research; project completed.
113	RES	2				ERP-99-N02	Aug-99	Oct-01	823,000	0	823,000	UCD	Joseph J. Cech Jr.			
					development of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.										Evaluation	completed.
110		2			112 B Status of the	ERP-99-N12	Jul-99	May-03	70,636	103,622	174,258	CDFG	Dennis McEwan		Development of a Comprehensive	Contributes to research and monitoring salmon. The primary goal of
112	RES				development of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.	ERP-99-N13	Oct-02	Nov-04	94,657	0	94,657	Humboldt State University, Department of Fisheries	Dr. David Hankin		Implementation Plan for a Statistically Designed Marking and Recovery	the proposal was to develop a plan for marking, tagging, and recovering salmon and to detail the steps required to implement such a plan. David Hankin, Humboldt State University. Planning; The model has not been completed. Final report is about 90% completed.
ţ	ES				112 B Status of the development of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.		Nov 97	Oct 00	508 096	0	508.0%6	UC Davis, Bodega Marine	Michael Ponko		Winter-run Chinook Salmon Captive Broodstock Program	The project will continue the development and refinement of molecular and statistical tools for stock discrimination among Central Valley chinook salmon. <i>Dennis Hedgecock, University of Southern</i> <i>California. Research; project completed.</i>

mber	N true			MS Components or		CON	TRACT						ifiable		
MS Nu	REGIO	Milestone	ERP Targets taken from ERPP Vol 2	Questions for field	ERP PROJECT			CALFED Award	Cost Share	Total Project Cost	Applicant	Principal Investigator	Quanti Units	Project Name	Comments
				112 B Status of the development of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.							UC Davis,	investigator		Applied Research to Identify Chinook Salmon Runs via Genetics	This project will address throughput efficiency and statistical backing for run integrity, characterization, discrimination and mixed stock analysis of chinook salmon. Unable to contact. Final report in e-room. Research; project completed.
12	SES				FRP-96-M11	Jul-96	2	750 000	250 000	1 000 000	Bodega Marine	Michael Banks			
112	RES			112 B Status of the development of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.	ERP-98-C11	Feb-99	May-01	285.000	none	285.000	CDFG	Bob Fuiimura		Adult Fall-Run Chinook Salmon Movement in the Lower San Joaquin River and South Delta	This project will monitor the upstream movement of fall-run chinook salmon in the lower San Joaquin River and South Delta. Bob <i>Fujimura, CDFG. Monitoring; project completed.</i>
	s			112 B Status of the development of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.				200,000						Assessing Ecological and Economic Impacts of the Chinese Mitten Crab	Kim Webb, USFWS. Project completed.
112	RE			112 P Status of the	ERP-99-N10	Sep-99	Jan-00	113,033	0	113,033	UC Berkeley	Vincent H. Resh		Riological Assessment of Green	This project will provide baseling information on life history parameters
12	tes			development of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and the covered plants and animals in the MSCS Focus Area.	ERP.08-015	Feb-99	Oct.01	241 000		241 000	LIC Davie	Josenh Carb Ir		Sturgeon in the Sacramento-San Joaquin Watershed	and physiological responses of green sturgeon. Monitoring and research project is 80% complete. Biological requirements of green sturgeon have been identified. Joseph Cech, Jr, UC Davis.
F				112 B Status of the	LNF-90-013	1 67-99		241,000	0	241,000	UC Davis	зозерп сесп, Л.		Identification of Watershed-Dependent	This project will use two complementary molecular markers to elucidate
112	RES			Idevelopment of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.	ERP-01-N43	Jun-01	Apr-05	827,000	0	827,000	San Francisco State University	Thomas Smith		Species in Central Valley	the genetic structure of Central Valley populations and to identify corresponding management units for 8 species of conservation importance in the Central Valley. <i>Project is 75% complete. Tom</i> <i>Smith, UCLA Center for Tropical Research.</i>

9 9	liable	ifiable					-		CON		MS Components or			N t Type	mber
U I <td>Principal Investigator Project Name Comments Investigator Encursed Action to Develop Research Project Task I: Identify the timing frequent magnitude and the second action to Develop</td> <td>Quanti Units</td> <td>Principal Investigator</td> <td>Applicant</td> <td>Total Project Cost</td> <td>Cost Share</td> <td>CALFED Award</td> <td>END DATE</td> <td>START DATE</td> <td>ERP PROJECT NUMBERS</td> <td>Questions for field personnel</td> <td>ERP Targets taken from ERPP Vol 2</td> <td>Milestone</td> <td>Projec</td> <td>MS Nu</td>	Principal Investigator Project Name Comments Investigator Encursed Action to Develop Research Project Task I: Identify the timing frequent magnitude and the second action to Develop	Quanti Units	Principal Investigator	Applicant	Total Project Cost	Cost Share	CALFED Award	END DATE	START DATE	ERP PROJECT NUMBERS	Questions for field personnel	ERP Targets taken from ERPP Vol 2	Milestone	Projec	MS Nu
Image:	Ecologically-based Hydrologic Models and Water Management Strategies in the San Joaquin Basin the San Joaquin										development of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and r" covered				
L K L K L <thl< th=""> <thl< th=""> <thl< th=""> <thl< th=""></thl<></thl<></thl<></thl<>				Natural Heritage							MSCS Focus Area.			ES	12
L Z Z APR-02.06 APR-02.06 APR-02.06 APR-02.07 APR-02.07 APR-02.07 APR-02.07 APR-02.07 Applied Real-Time Wate Outling Descingment and impairs of majors of	Joint Cam Comprehensive Assessment of Genetic Population Structure and Diversity for Central Valley Chinook Salmon Objective: Describe population structure and the distribution of genetic variation for Central Valley Chinook salmon populations to help guide recovery and restoration efforts. The project is still in its earliest stages. The PIs and associated NMFS and CDFG biologists have met several times and the first year of sample collection has been proceeding as planned. Collection targets are being met in almost all cases.		John Cain	institute	295,925		293,925	Jul-02	Feb-U1	EKF-00-804	112 B Status of the development of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.			<u>x</u>	÷
E B B B Betelognent of a competencies minifolding program (CMAPP) for equation and unlike discipations and propriations acceptable to the fish and wildlife agencies. For all "F and "Concept Betelognent of a propriations acceptable to the fish and wildlife agencies. For all "F and "Concept Betelognent of a competensise minifolding. B Betelognent of a competensise minifolding. Betelognent of a competensise minifolding. Betelognent of a minifolding discretise SBII on Marcinek. Censel SBII on Marcinek. Censel SBII on Marcinek. Censel Water Dativit. Marcinek. Censel Marcinek. Censel Water Dativit. Marcinek. Censel Marcinek. Censel Water Dativit. Marcinek. Censel Marcinek. Censel Water Dativit. Marcinek. Censel Marcinek. Censel Water Dativit. Project Marcinek. Bit Marcinek. Censel Water Dativit. Project Marcinek. Bit Marcinek. Censel Water Dativit. Project Marcinek. Bit Marcinek. Censel Water Dativit. Project Marcinek. Bit Marcinek. Censel Marcin	onzalo Castillo Adaptive Real-Time Water Quality Development and implementation of a program to address the therma	lo	Gonzalo Castillo	AFRP						AFRP-02-06	112 B Status of the			KE	112
E Image: Constraint of the second quartery is comprehensive monitoring, assessment and research program (MARP) for aquate heights and animals in the MSCS Focus Area. Support of the second quartery is comprehensive monitoring, assessment and research program (MARP) for aquate heights and animals in the MSCS Focus Area. Project will describe the implementation of an explanation of diked we program (MARP) for aquate heights and animals in the MSCS Focus Area. Project will describe the implementation of a comprehensive monitoring, assessment and research program (MARP) for aquate heights and animals in the MSCS Focus Area. Project will describe the implementation of a comprehensive monitoring, assessment and research program (MARP) for aquate heights and animals in the MSCS Focus Area. Project will describe the implementation of an explanation of a comprehensive monitoring, assessment and research program (CMARP) for aquate heights and animals in the MSCS Focus Area. Project will describe the implementation of an explanation of a comprehensive monitoring, assessment and research program (CMARP) for aquate heights and animals in the MSCS Focus Area. Project will describe the implementation of an explanation of a comprehensive monitoring, assessment and research program (CMARP) for aquate heights and animals in the MSCS Focus Area. Project will describe the implementation of an explanation of a comprehensive monitoring, assessment and research program (CMARP) for aquate height and animals in the MSCS Focus Area. Project will describe the implementation of an explanation of	Management of Seasonal Wetlands in the Grassland Water District impacts of irrigation return flows in the San Joaquin Basin. Project includes designing and installing a monitoring system for quantity and quality of wetland drainage flow from the Grassland Water District. Don Marciochi, Grasslands Water District. Monitoring. Project Still ongoing. Extended to 9/2004. Don Marciochi, On Marciochi,	i,	Don Marciochi,	Grasslands Water District,							development of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.				2
Image: Construction of the second of the	Interal Manager Biological Assessment of Green Project will describe the biological characteristics of this species and in habitats for conservation and potential restoration. Peter Klimley, UCD. Monitoring / Research. The project is 25 percent complete. The second quarterly report was published. Sturgeon have been caught and tagged. Monitoring sturgeon movement is underway Ahmad Hakim- Elahi Hakim-	I-	f Ahmad Hakim- Elabi	The Regents o the University	1 083 700	85 478	998.222	Sep-04	Sep-00	ERP-00-B05	112 B Status of the development of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.			TES	12
	Charles Applied Research to Predict the Evolution of Restored Diked Wetlands Contributes to the development of a delta flow and hydrodynamic evaluation methodology that can be appropriately used in the implementation of an ecologically based plan to restore conditions in the rivers and sloughs of the Delta to support targets for restoration o aquatic resources. Project contributes to the overall knowidege of restoration of diked wetlands in the Delta. Research/Monitoring		Charles	University of	1,083,700	00,478	393,222	Sep-US	000-03	ERF-02U-P3/	112 B Status of the development of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.			<u>er</u>	7

-	Т	- T				1			1	1	1		1	1	T	
	-		e				CON	TRACT						e		
	pe	_	ž											abl		
	'n	õ	t d		MS Components or									utili		
	s	B	oje	ERP Targets taken from	Questions for field	ERP PROJECT	START				Total Project		Principal	uar		
	Σ	R	- Milestone	ERPP Vol 2	personnel	NUMBERS	DATE	END DATE	CALFED Award	Cost Share	Cost	Applicant	Investigator	σ⊃	Project Name	Comments
					112 B Status of the										Zebra Mussel Detection and Outreach	The project is to implement a combination of public outreach and
					comprohensive monitoring										Program	monitoring to, first provide mormation to educate the public about
					assessment and research											up and operate an early detection system in the Central Valley
					program (CMARP) for aquatic											Bay/Delta and water storage and delivery systems. <i>Kim Webb</i> .
					habitats and species											USFWS. Monitoring; Remaining task is the development of a
					populations acceptable to the											Rapid Response Plan. This project conducts monitoring that wi
					fish and wildlife agencies.											aid in the detection of zebra mussel occurrence in the Delta.
					Conduct range wide surveys											
					for all 'R' and 'r' covered											
					MSCS Focus Area											
		s			meeer ocus / reu.											
	112	RE				ERP-99-F07	Nov-00	Mar-05	160,000	30,000	190,000	CDWR	Cindy Messer			
					112 B Status of the										Merced River Wing-Dam Gravel	Objective: The monitoring in this project will evaluate how spawning-
					development of a										Monitoring	sized gravel moves from wing-dam sites, comparing two techniques:
					comprehensive monitoring,											painted tracer rocks and radio-tagged rocks. This information can be
					assessment and research											used to assess whether these diversions are suitable locations for
					habitats and species											2002 and draft report was distributed for review in February 2003
1					populations acceptable to the									1		Final report was submitted in April 2003.
					fish and wildlife agencies.											· ······ · · · · · · · · · · · · · · ·
					Conduct range wide surveys									1		
					for all "R" and "r" covered											
					plants and animals in the											
		6			MSCS FOCUS Area.								leff McLain			
	112	RE				AFRP-00-46						AFRP	USFWS			
					112 B Status of the										Understanding Tidal Marsh Restoration	Researchers propose to build on and expand initial CALFED Categor
					development of a										Processes and Patterns	III-supported research in the Sacramento-San Joaquin Delta to
					comprehensive monitoring,											address considerable uncertainty in predicting the outcome and
					program (CMARP) for aquatic											different regions of the Bay-Delta, Suisun Bay, and San Pablo/North
					habitats and species											Bay. Charles Simenstad. University of Washington.
					populations acceptable to the											Research/Monitoring; 99% complete. Fieldwork and research
					fish and wildlife agencies.											complete. The project addresses considerable uncertainty in
					Conduct range wide surveys											predicting the outcome and ecological benefit of restoring
					for all "R" and "r" covered											shallow-water tidal habitat in three different regions of the Bay
					MSCS Focus Area.											Dena. the Dena, Suistin Bay, and San Pablomonth Bay
	~	s										University of	Charles			
	7	RE				ERP-99-B13	Aug-00	Jun-04	1,042,245	none	1,063,600	Washington	Simenstad			
					112 B Status of the										he Influences Flood Regimes,	Contributes to the development of the methodology for evaluating
					development of a										on the Links between Aquatic 8	delta flow and hydrodynamic patterns. Research. Project not
					assessment and research										Terrestrial Systems	completed. They are T hz years into the project
					program (CMARP) for aquatic										i chrocarda e yeterne.	
					habitats and species									1		
1					populations acceptable to the									1		
					fish and wildlife agencies.									1		
					Conduct range wide surveys									1		
					nor all is and animals in the									1		
					MSCS Focus Area.							University of		1		
	2	ŝ										California,		1		
L	11	RE				ERP-01-N01	Jan-02	Dec-04	2,521,236		2,521,236	Davis	Dr. James Quinn			
					112 B Status of the								1	1	Big Break and Marsh Creek Water	Planning for restoration of up to <30 acres of intertidal marsh in the
1					comprehensive monitoring									1		restored Monitoring Project not completed
					assessment and research									1	riogram	restored. monitoring, r roject not completed.
					program (CMARP) for aquatic									1		
					habitats and species									1		
1					populations acceptable to the									1		
					Conduct range wide supress									1		
					for all "R" and "r" covered									1		
1					plants and animals in the									1		
1					MSCS Focus Area.							California State	e	1		
	2	ŝ							0.000			Coastal		1		
	1,	Ř				ERP-02D-P52		L	357,146	none	357,146	Conservancy	Mary Small			

-																
	uber 4	Type					CON	TRACT						iable		
	MS Nun REGION	Project	Milestone	ERP Targets taken from ERPP Vol 2	MS Components or Questions for field personnel	ERP PROJECT NUMBERS	START DATE	END DATE	CALFED Award	Cost Share	Total Project Cost	Applicant	Principal Investigator	Quantif Units	Project Name	Comments
					112 B Status of the development of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.										Genetic Maintenance of Hatchery and Natural-Origin Winter-Run Chinook Salmon	Objective: Continue on-going screening and development of nDNA markers (loci) to allow positive identification of individual salmon adults for use in the Service's winter-run Chinook salmon captive propagation and captive brood stock programs, and determine genetic impacts of the program on the wild population through genetic analysis and verification and refinement of an effective population size model. The Bodega Marine Laboratory is well equipped to characterize populations of Chinook salmon using microsatellites. Screening of more than 50 microsatellite primer sets has been completed for most of the four runs. Seven loci have demonstrated marked frequency differences among the runs, and have been most useful to run discrimination work conducted thus far. Much of the work for run discrimination has been funded through a separate contract through the California Department of Water Resources for run discrimination work in the Delta. A computer program named "WHICH-RUN" has also been developed by the lab to make probability assignments for
	112 RES					AFRP-00-22						AFRP				
					112 B Status of the development of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.										Yuba River chinook salmon and steelhead life history evaluation	Objective: The objectives of the project are to document timing of emergence, size and condition at emigration, duration of emigration, and a measure of abundance or relative abundance. <i>Remaining</i> <i>funds in the amount of \$7,120 were appropriated to be used for a</i> <i>redd survey in fall 2003.</i>
	112 RES					AFRP-00-28						AFRP	USFWS			
	112 RES				112 C Status of the implementation of a comprehensive monitoring, assessment and research program (CMARP) for terrestrial habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.	ERP-98-C10	May-98	Dec-99	800,000	0	800,000	CDWR	Leo Winternitz		Comprehensive Monitoring Assessment and Research Program (CMARP)	Monitoring and Research; Completed. Leo Winternitz, The Water Forum
	S 9				112 C Status of the implementation of a comprehensive monitoring, assessment and research program (CMARP) for terrestrial habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.							California State University,	Charles W.		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). <i>Mapped riparian</i> <i>vegetation, open water, gravel bars, disturbed riparian, and</i> <i>invasive (Arundo, Tamarix, Rubus discolor) throughout the</i> <i>Sacramento River and major tributaries. Monitoring; project</i> <i>completed.</i>
1	12			1		ERP-96-M16	Aug-97	Sep-98	1,450,200	0	1,450,200	Chico	Nelson			

	;	/pe					CON	TRACT	-					ole		
		ject T		EPD Targets taken from	MS Components or		OT A DT				Total Broject		Principal	antifial ts		
2	N N	Pro	Milestone	ERPP Vol 2	personnel	NUMBERS	DATE	END DATE	CALFED Award	Cost Share	Cost	Applicant	Investigator	Qua Unii	Project Name	Comments
					112 C Status of the implementation of a comprehensive monitoring, assessment and research program (CMARP) for terrestrial habitats and species										Biological Restoration and Monitoring in the Suisun Marsh/North San Francisco Bay Ecological Zone	Project task 3 includes restoration success monitoring of at risk bird and mammal species, including clapper rail and salt marsh harvest mouse. <i>Project complete. Restoration of 272 acres of tidal marsh</i> <i>habitat; Carl Wilcox, CDFG.</i>
	. 0				fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the											
		1			MSCS Focus Area.	ERP-98-F22	Dec-98	Sep-02	772,667	243,812	1,016,479	CSU Hayward	C. Kitting			
					112 C Status of the implementation of a comprehensive monitoring, assessment and research program (CMARP) for terrestrial habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the transmission of the surveys for all "R" and "r" covered plants and animals in the transmission of the surveys for all "R" and "r" covered plants and animals in the transmission of the surveys for all "R" and "r" covered plants and animals in the transmission of the surveys for all "R" and "r" covered plants and animals in the transmission of the surveys for all "R" and "r" covered plants and animals in the transmission of the surveys for all "R" and "r" covered plants and animals in the transmission of the surveys for all "R" and "r" covered plants and animals in the transmission of the surveys for all "R" and "r" covered plants and animals in the transmission of the surveys for all "R" and "r" covered plants and animals in the transmission of the surveys for all "R" and "r" covered plants and animals in the transmission of the surveys for all "R" and "r" covered plants and animals in the transmission of the surveys for all "R" and "r" covered plants and animals in the transmission of the surveys for all "R" and "r" covered plants and animals in the transmission of the surveys for all "R" and "r" covered plants and animals and animals and animals and plants and animals and plants and pl										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.
					MSCS Focus Area.	ERP-97-N04	Feb-98	Feb-01	898.700	0	898.700	The Nature Conservancy	Meghan Mazzoni			
					112 C Status of the implementation of a comprehensive monitoring, assessment and research program (CMARP) for terrestrial habitats and species populations acceptable to the fish and wildlife agencies.										At-Risk Plant Species, Habitat Restoration and Recovery, And Non- Native invasive Species Management	Development of a cooperative program to manage and restore 17.25 acres of alkali vernal pools and ~ 250 of adjacent buffer areas in the Suisun Marsh/North San Francisco Bay EMZ. Ties in with Suisun Marsh/North San Francisco Bay EMZ by way of Crampton's tuctoria. Monitoring, Planning, and Implementation; 27% completed. 320 acres of alkali vernal pools and grassland (17.25 acres of alkali vernal pools and ~ 250 of adjacent buffer)
017	RES -	2			Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.	ERP-02-P46	Jul-03	Jun-06	400,000	0	400,000	Environmental Science Associates	Niall McCarten			
					112 C Status of the implementation of a comprehensive monitoring, assessment and research program (CMARP) for terrestrial habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.	ERP-01-C01	Feb-01	Oct-04	1.793.661	582 840	2.367.501	SF Bay Area	Nadine Hitchcock		Invasive Spartina Project	Project not complete. Project has conducted outreach, education, and clapper rail surveys. Actual eradication is pending environmental compliance documents. This project will undertake efforts to plan and implement control of Spartina to prevent an invasion of San Pablo and Suisun Bays and significantly reduce invasive populations bay wide. Contributes to the restoration of saline emergent wetland; Kim Webb, USFWS.
		_			112 C Status of the implementation of a comprehensive monitoring, assessment and research program (CMARP) for terrestrial habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the				1,100,001		2,001,001	The Nature			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.
13		2			WISUS FOCUS Area.	ERP-97-N03A	Dec-98	Dec-01	780,000	0	780.000	Conservancy	Meghan Mazzoni			

-	e					CON	TRACT						e		
equir	⁴ Tyl			MS Components or									ifiabl		
MS NL	REGIC Projec	Milestone	ERP Targets taken from ERPP Vol 2	Questions for field personnel	ERP PROJECT NUMBERS	START DATE	END DATE	CALFED Award	Cost Share	Total Project Cost	Applicant	Principal Investigator	Quant Units	Project Name	Comments
				112 C Status of the implementation of a comprehensive monitoring, assessment and research program (CMARP) for terrestrial habitats and species populations acceptable to the										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.
112	RES			fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.	ERP-97-N03B	Mar-99	Mar-02	512,500	0	512,500	Wildlife Conservation Board	Scott Clemons			
112	RES			112 C Status of the implementation of a comprehensive monitoring, assessment and research program (CMARP) for terrestrial habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.	ERP-01-N19	Feb-01	n/a	593 931		593.931	Ducks Unlimited	Fritz Reid		Ecological Monitoring of Tolay and Cullinan Ranch Tidal Wetland Restoration	Monitoring from construction to development of tidal marsh. Monitoring project is ongoing; Carl Wilcox, CDFG.
12	Res			112 C Status of the implementation of a comprehensive monitoring, assessment and research program (CMARP) for terrestrial habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.	ERP_02D_P59			6 427 131		6 427 131	San Luis National Wildlife Refuge	Kim Forrest,		Recovery Implementation for Riparian Brush Rabbit and Riparian Woodrat on the lower Stanislaus River	Project not begun yet. Proposing to establish for riparian brush rabbits a Lower Stanislaus River Riparian Preserve of 500-1,000 acres on the south bank of Stanislaus River in Stanislaus County, within an area defined by the confluence with the San Joaquin River up to river mile 9.5. Additionally, proposing expansion of the habitat at Caswell Memorial State Park, San Joaquin County, while monitoring the riparian brush rabbits response; and monitor the recently reintroduced rabbits at the San Joaquin River National Wildlife Refuge on the San Joaquin River in Stanislaus County to gain a better understanding of the reintroduction process. Kim Forrest, USFWS.
112	RES			112 C Status of the implementation of a comprehensive monitoring, assessment and research program (CMARP) for terrestrial habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.	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, CDFG. 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.
112				112 C Status of the implementation of a comprehensive monitoring, assessment and research program (CMARP) for terrestrial habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.	ERP-02-P17	Sep-03	Aug-06	356.876	81.363	438.239	Point Reyes Bird Observatory	Geoffrev Geunel		Songbird population responses to riparian management and restoration at multiple scales: comparative analysis, predictive modeling, and the evaluation of monitoring programs.	Geoffrey Geupel,Point Reyes Bird Observatory. Monitoring. Project 5% completed.

Number	NOIS	ject Type	EPP Tarrate taken from	MS Components or		CONT	TRACT			Total Project		Principal	untifiable ts		
N N	REC	G Milestone	ERPP Vol 2	personnel	NUMBERS	DATE	END DATE	CALFED Award	Cost Share	Cost	Applicant	Investigator	Qua	Project Name	Comments
				112 D Status of the implementation of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered										Biological Assessment of Green Sturgeon in the Sacramento-San Joaquin Watershed	This project will provide baseline information on life history parame and physiological responses of green sturgeon. <i>Monitoring and</i> <i>research project is 80% complete. Biological requirements of</i> <i>green sturgeon have been identified. Joseph Cech, Jr, UC Da</i>
				plants and animals in the MSCS Focus Area.											
Ŧ				112 D Status of the implementation of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys	ERP-98-C15	Feb-99	Oct-01	241,000	0	241,000	UC Davis	Joseph Cech, Jr.		Comprehensive Monitoring Assessment and Research Program (CMARP)	Monitoring and Research; Completed. Leo Winternitz, The Wa Forum
110	RES			for all "R" and "r" covered plants and animals in the MSCS Focus Area.	ERP-98-C10	May-98	Dec-99	800,000	0	800,000	CDWR	Leo Winternitz			
112	RES			112 D Status of the implementation of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "A" and "r" covered plants and animals in the MSCS Focus Area.	ERP-02-P29	Jul-03	Jun-06	4,350,000	50000 Tuolumne River Technical Advisory Committee	4,400,000	Turlock Irrigation District	Wilton Fryer		Tuolumne River Sediment Acquisition and Spawning Gravel Transfusion Project	Project Task 10. Monitoring. This task will implement component the monitoring plan to evaluate the performance of gravel augmentation to enhance salmonid spawning habitat. <i>JBF MCL</i> <i>USFWS. Implementation. Project has not started, USFWS</i> <i>expecting a significant change in the scope of this contrac</i>
				112 D Status of the implementation of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.										Genetic Maintenance of Hatchery and Natural-Origin Winter-Run Chinook Salmon	Objective: Continue on-going screening and development of nDN markers (loci) to allow positive identification of individual salmon at for use in the Service's winter-run Chinook salmon captive propaga and captive brood stock programs, and determine genetic impacts the program on the wild population through genetic analysis and verification and refinement of an effective population size model. T Bodega Marine Laboratory is well equipped to characterize <i>populations of Chinook salmon using microsatellites. Screen</i> <i>of more than 50 microsatellite primer sets has been completed</i> <i>most of the four runs. Seven loci have demonstrated marke</i> <i>frequency differences among the runs, and have been mos</i> <i>useful to run discrimination has been funded through a separ</i> <i>contract through the California Department of Water Resourc</i> <i>for run discrimination work in the Delta.</i>
1	RES				AFRP-00-22						AFRP				

Visual state Visual state <th< th=""><th></th><th>۵</th><th></th><th></th><th></th><th>CON</th><th>TRACT</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></th<>		۵				CON	TRACT								
Solution ERP Targets taken from MS Components or Operations for hid personnel ERP PROJECT START DATE END DATE CALFED Award Cost Share Total Project Principal Start Principal Start Principal Start Project Name Comments Image: Start Image: Start Image: Start DATE CALFED Award Cost Share Cost Share Cost Applicant Principal Start Project Name Comments Image: Start Image: Start Components or Target staken from MUMEERS DATE CALFED Award Cost Share Cost Share Cost Applicant Principal Start Image: Start Researchers propose to build on and expand initial CALFED Catege Image: Start Image: Start Researchers propose to build on and expand initial CALFED Catege Image: Start Image: Start Researchers propose to build on and expand initial CALFED Catege Image: Start Image: Start Researchers propose to build on and expand initial CALFED Catege Image: Start Image:	nber N	d T				001							liable		
S C A Milestone EMP Vol 2 personnel NUMBERS DATE CALFED Award Cost Share Cost Applicant investigator S Description Researches proposition Comments III 2D Status of the implementation of a comprehensive monitoring, dassessment and research populations acceptable to the fish and wildle agencies. III 2D Status of the implementation of a comprehensive monitoring, dassessment and research populations acceptable to the fish and wildle agencies. IIII 2D Status of the implementation of a comprehensive monitoring, dassessment and research populations acceptable to the fish and wildle agencies. IIII 2D Status of the implementation of a comprehensive monitoring, dassessment and research populations acceptable to the fish and wildle agencies. IIIII 2D Status of the implementation of a comprehensive monitoring, dassessment and research populations acceptable to the fish and wildle agencies. IIIII 2D Status of the implementation of a comprehensive monitoring, dassessment and research populations sceptable to the fish and wildle agencies. IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	IS Nur EGIOI	roject	ERP Targets taken from	MS Components or Questions for field	ERP PROJECT	START				Total Project		Principal	uantif nits		
E Implementation of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildle agencies. Conduct range wide surveys for all "R" and " covered plants and animats in the method and animats in the plants and species populations acceptable to the fish and wildle agencies. Conduct range wide surveys for all "R" and " covered plants are aquatic habitats and species comprehensive monitoring, assessment and animats in the plants are aquatic habitats and species considerable to the fish and wildle agencies. Conduct range wide surveys for all "R" and " covered plants are aquatic habitats and species considerable to the fish and wildle agencies. Conduct range wide surveys for all "R" and " covered plants are aquatic habitats and species plants are aquatic habitats and species plants are aquatic plants are aquatic pl	2 2	C. Milestone	ERPP Vol 2	112 D Status of the	NUMBERS	DATE	END DATE	CALFED Award	Cost Share	Cost	Applicant	Investigator	ø⊃	Project Name Understanding Tidal Marsh Restoration	Comments Researchers propose to build on and expand initial CALFED Category
Image: segment and research program (CMARP) for aquatic habitas and species populations acceptable to the fish and widtlife agencies. Conduct range wide surveys for all "R" and " covered plants and animals in the MSCS Focus Area. Image: segment and research project addresses considerable in the complete. The project addresses considerable in the project addresses considerable in the project addresses considerable in the MSCS Focus Area. Image: segment addresses considerable in the project addresses considerable in the project addresses considerable in the MSCS Focus Area. Image: segment addresses considerable in the project addresses considerable in the project addresses considerable in the MSCS Focus Area. Image: segment addresses considerable in the project addresses considerable in the method in the addresses considerable in the MSCS Focus Area. Image: segment addresses considerable in the project addresses considerable in the method in the addresses considerable in the MSCS Focus Area. Image: segment addresses considerable in the project addresses considerable in the project addresses considerable in the method in the addresses considerable in the address and addresses considerable in the addressese considerable in the addresses considerable				implementation of a comprehensive monitoring.										Processes and Patterns	III-supported research in the Sacramento-San Joaquin Delta to address considerable uncertainty in predicting the outcome and
Note: Status				assessment and research											ecological benefit of restoring shallow-water tidal habitat in three
Image: bit is and wilding agencies. computations acceptable to the fish and wilding agencies. complex. The particular data constraints in three different regions of the Ba Delta: the Delta, Suisun Bay, and San Pablo/North Bay Image: bit is and wilding agencies. conduct range wide surveys for all "R" and "covered plants and animals in three different regions of the Ba Delta." the Delta, Suisun Bay, and San Pablo/North Bay conduct range wide surveys for all "R" and "covered plants and animals in three different regions of the Ba Delta." the Delta, Suisun Bay, and San Pablo/North Bay Image: bit is bit				habitats and species											different regions of the Bay-Delta, Suisun Bay, and San Pablo/North Bay. <i>Charles Simenstad, University of Washington.</i>
Normal Section Section Conduct range wide surveys for all "R" and "r covered plants and animals in the MSCS Focus Area. Number and sections and ecological benefit of restoring shallow-water tidal habitat in three different regions of the Ba Delta: the Delta, Suisun Bay, and San Pablo/North Bay MSCS Focus Area. Line Pable Conduct range wide surveys for all "R" and "r covered plants and animals in the MSCS Focus Area. Line Pable Line Pable Conduction for central Valley Charles Comprehensive Assessment of Genetic Population structure and Diversity for Central Valley Chinook Salmon Objective: Describe population structure and the distribution of gene variation for Central Valley Chinook Salmon Objective: Describe population structure and the distribution of gene variation for Central Valley Chinook Salmon Objective: Describe population structure and the distribution of gene variation for Central Valley Chinook salmon populations to help gui recovery and restoration efforts. The project is Still in its earlies stages. The PIs and assessment and research proceeding as planned. Collection targets are being met in alme and widing egnels. Conduction agreeds were series are being met in alme proceeding as planned. Collection targets are being met in alme all cases. Conduction targets are being met in alme all cases.				populations acceptable to the											Research/Monitoring; 99% complete. Fieldwork and research
R Image: Second sec				Conduct range wide surveys											predicting the outcome and ecological benefit of restoring
Image: Problem in the plants and administration of program (CMARP) for quartic ange wide surveys Aug-00 Jun-04 1,042,245 none 1,063,600 University of Washington Charles Simenstad Objective: Describe population structure and the distribution of gene variation of forms to help gui recovery and restoration efforts. The project is still in its earlies and the first year of sample collection targets are being met in all cases. Objective: Describe population structure and the distribution of gene variation of a covery and restoration efforts. The project is still in its earlies are being met in all cases. Objective: Describe population structure and the distribution of gene variation of a covery and restoration efforts. The project is still in its earlies are being met in all cases. Image: Plants and additional plants and wild if agencies. Conduct range wide surveys Image: Plants and wild if agencies. Conduct range wide surveys				for all "R" and "r" covered											shallow-water tidal habitat in three different regions of the Bay
2 3/2 Image: Constraint of the constraint				MSCS Focus Area.											Dena. ule Dena, Sulsuli Bay, allu Sali Pablomortii Bay
P W Intersity of Chaines Oniversity of Chaines V W Intersity of Chaines Oniversity of Chaines V V Implementation of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species point and wildlife agencies. Conduct range wide surveys Implementation of a comprehensive data and program (CMARP) for aquatic habitats and species point and wildlife agencies. Conduct range wide surveys Implementation of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species point and wildlife agencies. Conduct range wide surveys Implementation of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species point and wildlife agencies. Conduct range wide surveys Implementation of a comprehensive monitoring, assessment and research aprogram (CMARP) for aquatic habitats and species point and wildlife agencies. Conduct range wide surveys Implementation of a comprehensive monitoring, assessment and research aprogram (CMARP) for aquatic habitats and species point and wildlife agencies. Conduct range wide surveys Implementation of a comprehensive monitoring, assessment and research aprogram (CMARP) for aquatic habitats and species point and wildlife agencies. Conduct range wide surveys Implementation of a comprehensive monitoring, assessment and research aprogram (CMARP) for aquatic habitats and species point and wildlife agencies. Conduct range wide surveys Implementation of a comprehensive monitoring, assessment and research aprogram (CMARP) for aquatic habitats and species point and wildlife agencies. Conduct range wide surv											I Iniversity of	Charles			
112 D Status of the implementation of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species Conduct range wide surveys Objective: Describe oppulation structure and the distribution of gene implementation of a variation for Central Valley Chinook salmon populations chelg guid variation for Central Valley Chinook stages. The PIs and associated NMFS and CDFG biologists ha met several times and the first year of sample collection has bee habitats and species Conduct range wide surveys Salmon Objective: Describe oppulation structure and nopoulations chelg guid stages. The PIs and associated NMFS and CDFG biologists ha met several times and the first year of sample collection has bee proceeding as planned. Collection targets are being met in almon all cases.	112 RES				ERP-99-B13	Aug-00	Jun-04	1,042,245	none	1,063,600	Washington	Simenstad			
biversity for Central Valley Chinook sasessment and research program (CMARP) for aquatic habitats and species. Conduct range wide surveys				112 D Status of the implementation of a										Comprehensive Assessment of Genetic Population Structure and	Objective: Describe population structure and the distribution of genetic variation for Central Valley Chinook salmon populations to help guide
assessment and research associated wins and CDPG biologists and the first year of sample collection has be habitat and species and the first year of sample collection has be proceeding as planned. Collection targets are being met in almost and wildlife agencies. Conduct range wide surveys				comprehensive monitoring,										Diversity for Central Valley Chinook	recovery and restoration efforts. The project is still in its earliest
habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys				program (CMARP) for aquatic										Samon	met several times and the first year of sample collection has been
an cases.				habitats and species											proceeding as planned. Collection targets are being met in almost
Conduct range wide surveys				fish and wildlife agencies.											all cases.
				Conduct range wide surveys											
plants and animals in the				plants and animals in the											
R MSCS Focus Area. Gonzaio Castilio K AFRP-02-06 AFRP	112 RES			MSCS Focus Area.	AFRP-02-06						AFRP	USFWS			
112 D Status of the Zebra Mussel Detection and Outreach The project is to implement a combination of public outreach and implementation of a monitoring to first provide information to educate the public about				112 D Status of the										Zebra Mussel Detection and Outreach	The project is to implement a combination of public outreach and monitoring to first provide information to educate the public about
comprehensive monitoring,				comprehensive monitoring,										riogram	zebra mussels and the means by which they spread and, second to set
assessment and research program (CMARP) for aquatic				assessment and research program (CMARP) for aquatic											up and operate an early detection system in the Central Valley, Bay/Delta and water storage and delivery systems. <i>Kim Webb</i> .
habitats and species				habitats and species											USFWS.Monitoring; Remaining task is the development of a
populations acceptable to the fish and wildlife agencies.				fish and wildlife agencies.											aid in the detection of zebra mussel occurrence in the Delta.
Conduct range wide surveys				Conduct range wide surveys											
plants and animals in the				plants and animals in the											
P Weights MSCS Focus Area. ERP-99-F07 Nov-00 Mar-05 160,000 30,000 Lights Cindy Messer	112 RES			MSCS Focus Area.	ERP-99-F07	Nov-00	Mar-05	160,000	30,000	190,000	CDWR	Cindy Messer			
112 D Status of the Lassen National Forest Watershed The LNF watershed stewardship project includes three watershed Implementation of a Stewardship Within the Academan based and activity in the academan watershed of December 2010				112 D Status of the								-		Lassen National Forest Watershed	The LNF watershed stewardship project includes three watershed-
Comprehensive monitoring,				comprehensive monitoring,										Watersheds of Butte, Deer, and Mill	Mill, Butte Creeks. Tasks 1a and 2a include 44 extensive sediment
assessment and research Creeks reduction projects in Deer and Mill Creek watersheds. Additiona				assessment and research										Creeks	reduction projects in Deer and Mill Creek watersheds. Additional
habitats and species followed by the implementation of meadow restoration demonstration				habitats and species											followed by the implementation of meadow restoration demonstration
Department of De				populations acceptable to the							Department of				projects, installation of interpretive displays at seven recreation areas
Agriculture Conduct range wide surveys				Conduct range wide surveys							Agriculture				Potato Patch campground, a summer patrol of the Spring-run chinook
for all "R" and "r" covered salmon spawning areas in Deer Creek, and the establishment of Lassen Watershed Stewardship education programs at Chester Elementation and animals in the stabilishment of Lassen Stewardship education programs at Chester Elementation and animals in the stabilishment of Lassen Stewardship education programs at Chester Elementation and animals in the stabilishment of Stewardship education programs at Chester Elementation and animals in the stabilishment of Stewardship education programs at Chester Elementation and animals in the stabilishment of Stewardship education programs at Chester Elementation and animals in the stabilishment of Stewardship education programs at Chester Elementation and Stewardship education and Stewardship education at Steward				for all "R" and "r" covered plants and animals in the							Lassen				salmon spawning areas in Deer Creek, and the establishment of Watershed Stewardship education programs at Chester Elementary
P MSCS Focus Area. MSCS Focus Area.	12 RES			MSCS Focus Area.	ERP-01-N26	Oct-01	Oct-04	840 845	0	849 845	National Forest	Puss Volko			and High Schools. Ken Roby, USFWS. Implementation of various
Image: Contraction projects on Buttle Dear and Mill Creeks: 66 parce 112 D Status of the 112 D Status of the				112 D Status of the		000-01	001-04	0-0,0-0	, v	0-0,0-0		TRUCE VOINE		Estimating the Abundance of	Monitoring downstream migrating winter-run salmonids. Monitoring;
implementation of a comprehensive monitoring, comprehensive monitoring				Implementation of a comprehensive monitoring										Sacramento River Juvenile Winter-run Chinook Salmon with Comparison to	project on-going.
Adult Escapement				assessment and research										Adult Escapement	
program (CMARP) for aquatic habitats and species				program (CMARP) for aquatic habitats and species											
populations acceptable to the				populations acceptable to the											
Conduct range wide surveys				Conduct range wide surveys											
for all "R" and "r" covered				for all "R" and "r" covered											
No. State and an all of an and a state and a stat	112 XES			MSCS Focus Area.	ERP_01-N///	Oct-01	Sep-04	1 211 003	0	1 211 003	LISEW/S	James Smith			

	-				1			1	·		1				
						001	TRACT						-		
Der 1		ά.				CON	RACI						ble		
Ę	N	H		MS Components or									lifia		
ž	ĕ	- jec	ERP Targets taken from	Questions for field	ERP PROJECT	START				Total Project		Principal	ant its		
Β	R	Milestone	ERPP Vol 2	personnel	NUMBERS	DATE	END DATE	CALFED Award	Cost Share	Cost	Applicant	Investigator	g P	Project Name	Comments
				112 D Status of the										Assessing Ecological and Economic	Kim Webb, USFWS, Project completed.
				implementation of a										Impacts of the Chinese Mitten Crab	
				comprehensive monitoring,											
				assessment and research											
				habitats and species											
				populations acceptable to the											
				fish and wildlife agencies.											
				Conduct range wide surveys											
				for all "R" and "r" covered											
	6			plants and animals in the											
13	Ϋ́Ε			MSCS Focus Area.	ERP-99-N10	Sep-99	Jan-00	113,033	0	113,033	UC Berkeley	Vincent H. Resh			
				112 D Status of the										Central Valley Steelhead Genetic	Dennis McEwen, CDFG. Monitoring and Research; project
				implementation of a										Evaluation	completed.
				comprehensive monitoring,											
				assessment and research											
				habitats and species											
				populations acceptable to the											
				fish and wildlife agencies.											
				Conduct range wide surveys											
				for all "R" and "r" covered											
~	s			plants and animals in the											
112	RE			MISCS FOCUS Area.	ERP-99-N12	Jul-99	May-03	70,636	103,622	174,258	CDFG	Dennis McEwan			
				112 D Status of the										Fish Treadmill Developed Fish Screen	Joseph J. Cech Jr., U.C. Davis. Monitoring and Research; project
				implementation of a										Criteria for Native Sacramento - San	completed.
				comprehensive monitoring,										Joaquin Watersned Fisnes	
				program (CMARP) for aquatic											
				habitats and species											
				populations acceptable to the											
				fish and wildlife agencies.											
				Conduct range wide surveys											
				for all "R" and "r" covered											
2	ŝ			MSCS Focus Area.								Joseph J. Cech			
-	R				ERP-99-N02	Aug-99	Oct-01	823,000	0	823,000	UCD	Jr.			
				112 D Status of the										Algae Toxicity Study	Monitoring and research. Karen Larsen, Monitoring; project
				comprehensive monitoring.											completed.
				assessment and research											
				program (CMARP) for aquatic											
1				habitats and species											
1				populations acceptable to the											
1				Conduct range wide survive											
1				for all "R" and "r" covered											
	1			plants and animals in the							State Water				
12	ES			MSCS Focus Area.		lup 01	Nov 02	500.000	0	500.000	Resources	Karon Lorgan			
—	L.			112 D Status of the	LNF-90-000	Juil-UI	1107-02	500,000	U	500,000	Some Di Buard	Naren Laisell		Effects of Introduced Species of	Kim Webb. USFWS. Unknown if project completed. The goal of
1	1			implementation of a										Zooplankton and Clams on the Bay-	the project will be to determine how food web alterations
1				comprehensive monitoring,										Delta Food Web	influence the key fish species that depend on that food web, and
				assessment and research											what rehabilitation efforts and actions might be effective in the
1				program (CMARP) for aquatic											context of that altered food web. Tasks include examination of
1				naultats and species											gui contents and condition of fish to assess the extent to which
1				fish and wildlife agencies.											experiments will be conducted to determine growth and
1				Conduct range wide surveys											production rates of common species of zooplankton; predation
1				for all "R" and "r" covered											experiments will be conducted to examine selective predation by
1	1			plants and animals in the											fish on alternative zooplankton prey, and predatory relationships
1				INISUS FOCUS Area.											among the zooplankton; and growth rate of key species will be
1															measured and the degree of 1000 limitation will be determined.
1											San Francisco				
	s						Mar-04				San Tancisco State				
12	Ű.			1	ERP-99-N09	Apr-00	amended	653.384	0	653 384	University	Wim Kimmerer			

۲.		e					CON	TRACT						Ð		
nmbe	N	ct Tyj			MS Components or									tifiabl		
N SM	REGI	Proje	Milestone	ERP Targets taken from ERPP Vol 2	Questions for field	ERP PROJECT NUMBERS	START DATE	END DATE	CALFED Award	Cost Share	Total Project Cost	Applicant	Principal Investigator	Quan	Proiect Name	Comments
					112 D Status of the implementation of a										Rainbow Trout Toxicity Monitoring	Research and monitoring of rainbow trout. Karen Larsen, State Water Resource Control Board, Monitoring: There have been
					comprehensive monitoring,											contract delays. The work has not yet started.
					program (CMARP) for aquatic											
					populations acceptable to the											
					fish and wildlife agencies. Conduct range wide surveys							Control Valley				
					for all "R" and "r" covered plants and animals in the							Regional				
112	RES				MSCS Focus Area.	ERP-01-N22	Sep-98	Jun-01	530,000	120,000	650,000	Water Quality Control Board	Karen Larsen			
					112 D Status of the implementation of a										Fathead Minnow Toxicity Study in the Sacramento River	Monitoring and research of fathead minnows. Karen Larsen, State Water Resource Control Board. Monitoring; project completed.
					comprehensive monitoring, assessment and research											
					program (CMARP) for aquatic habitats and species											
					populations acceptable to the fish and wildlife agencies.											
					Conduct range wide surveys											
~	s				plants and animals in the							State Water Resources				
11	RE				112 D Status of the	ERP-98-C07	Sep-98	Nov-02	400,000	0	400,000	Control Board	Karen Larsen		Clear Creek Juvenile Salmonid	Monitoring of Rotary Screw Trap for juvenile salmonids in Clear Creek.
					implementation of a										Monitoring Project	Monitoring; the project is ongoing. One year is completed.
					assessment and research											
					habitats and species											
					fish and wildlife agencies.											
					Conduct range wide surveys for all "R" and "r" covered											
2	ES				plants and animals in the MSCS Focus Area.					_			James G. Smith			
÷	~	-			112 D Status of the	ERP-01-N47	Jul-01	Jun-06	1,009,287	0	1,009,287	USFWS	or Matt Brown		Sacramento River Winter Chinook	Monitoring of Winter -run salmon carcasses on the Sacramento River.
					implementation of a comprehensive monitoring,										Salmon Carcass Study	Monitoring; the project is ongoing. Two years completed.
					assessment and research program (CMARP) for aquatic											
					habitats and species populations acceptable to the											
					fish and wildlife agencies. Conduct range wide surveys											
					for all "R" and "r" covered											
13	RES				MSCS Focus Area.	ERP-01-N46	May-01	Dec-05	391,019	0	391,019	USFWS	James G. Smith or Matt Brown			
					112 D Status of the implementation of a										Battle Creek Anadromous Salmonid Monitoring Projects	Monitoring projects on chinook salmon in Battle Creek. Monitoring; project on-going.
					comprehensive monitoring,											
					program (CMARP) for aquatic											
					populations acceptable to the											
1					Conduct range wide surveys											
1					plants and animals in the								James G. Smith			
112	RES				MSCS Focus Area.	ERP-01-N45	Jul-01	Jun-05	1,736,073	0	1.736.073	USFWS	or Matt Brown			

Number	GION	ject Type	ERP Targets taken from	MS Components or Questions for field	ERP PROJECT	CON	TRACT	-		Total Project		Principal	its fits	
ΒS	RE	Milestone	ERPP Vol 2	personnel	NUMBERS	DATE	END DATE	CALFED Award	Cost Share	Cost	Applicant	Investigator	Project Name	Comments
				112 D Status of the implementation of a comprehensive monitoring, assessment and research program (CMARP) for aquatic									Chronic Toxicity in Splittail	Research and monitoring. Project 85% complete pending final reports; Silia S.O. Hung
				habitats and species populations acceptable to the fish and wildlife agencies.										
	s			Conduct range wide surveys for all "R" and "r" covered plants and animals in the										
11	RE			MISCS I OCUS Alea.	ERP-99-N07	Jan-00	Jan-04	673,684	135,994	809,678	UC Davis	Silia S. O. Hung		
				112 D Status of the implementation of a comprehensive monitoring, assessment and research									Ecological Monitoring of Tolay and Cullinan Ranch Tidal Wetland Restoration	monitoring from construction to development of tidal marsh. Monitoring project is ongoing; Carl Wilcox, CDFG.
				habitats and species populations acceptable to the fish and wildlife agencies.										
12	RES			for all "R" and "r" covered plants and animals in the MSCS Focus Area.	ERP-01-N19	Feb-01	n/a	593 931		593 931	Ducks	Fritz Reid		
—				112 D Status of the		100-01	11/0	000,001		000,001	Criminited		Butte Creek Big Chico Creek and	Monitoring; 60 percent complete. Project will continue. PGE
				implementation of a									Sutter Bypass Chinook Salmon and	funded a pre-spawning mortality study.
				assessment and research									Steemeau Evaluation	
				program (CMARP) for aquatic										
				populations acceptable to the										
				fish and wildlife agencies.										
				for all "R" and "r" covered										
				plants and animals in the				202454		¢500.500.00m				
112	RES			MSCS Focus Area.	ERP-01-N49	Jan-02	Dec-04	362454 amended	?	\$522,529 3yrs worth of work	CDFG	Paul Ward		
				112 D Status of the									Sacramento River Conservation Area	The project involves hiring a manager and office staff for a three-year
				comprehensive monitoring,									Program	period to assist in the development and implementation of site-specific plans for areas with in the Sacramento River Riparian Conservation
				assessment and research										Area, and to manage a new nonprofit riparian land management entity
				habitats and species										that will coordinate activities and continue the process of building broader support and understanding of the goals of the SB 1086
				populations acceptable to the										program. Burt Bundy, Sacramento River Conservation Area
				fish and wildlife agencies. Conduct range wide surveys										Forum. Planning; project completed. The project provided funding to continue the efforts of the Sacramento River
				for all "R" and "r" covered										Conservation Area Program to act as a coordinating body
				plants and animals in the MSCS Focus Area.										between local, state, and federal agencies regarding restoration activities in the Sacramento River watershed.
	s													
11	RE				ERP-01-N28	Oct-01	Oct-04	541,747	0	541,747	CDWR	Burt Bundy		
				implementation of a									Butte Creek Riparian Restoration Demonstration	CDFG. Close off all unauthorized vehicle access and monitor
				comprehensive monitoring,										water quality, revegetation areas and wildlife populations.
				program (CMARP) for aquatic										funded a spring -run chinook salmon project.
				habitats and species										
				fish and wildlife agencies.										
				Conduct range wide surveys								Donald		
1				plants and animals in the								Holtgrieve, Dept		
112	RES			MSCS Focus Area.	ERP-98-F24	Dec-98	Sep-00	76,348	0	76,348	CSU Chico	of Geography and Planning.		

MS Number	REGION Project Type	ERP Targets ta Milestone ERP V	MS Components or Questions for field I 2 personnel	ERP PROJECT NUMBERS	CONTRA START DATE EN	ACT	CALFED Award	Cost Share	Total Project Cost	Applicant	Principal Investigator	Quantifiable Units	Project Name	Comments
112	RES		112 D Status of the implementation of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r' covered plants and animals in the MSCS Focus Area.	ERP-98-F22	Dec-98 5	Sep-02	772,667	243,812	1,016,479	CSU Hayward	C. Kitting		Biological Restoration and Monitoring in the Suisun Marsh/North San Francisco Bay Ecological Zone.	Project task 3 includes restoration success monitoring of submerged vegetation habitats, fish migration and colonization, and foodweb parameters. Project complete. Restoration of 272 acres of tidal marsh habitat; Carl Wilcox, CDFG.
12	tes		112 D Status of the implementation of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.	ERP.01-C01	Feb.01	Oct-04	1 703 661	582 840	2 367 501	SF Bay Area	Nadine Hitchcock		Invasive Spartina Project	Project not complete. Project has conducted outreach, education, and clapper rail surveys. Actual eradication is pending environmental compliance documents. This project will undertake efforts to plan and implement control of Spartina to prevent an invasion of San Pablo and Suisun Bays and significantly reduce invasive populations bay wide. Contributes to the restoration of saline emergent wetland; Kim Webb, USFWS.
112	× ×		112 D Status of the implementation of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.	AFRP-01-10	2000 ? 9/	/30/02 ?	299,606 ?	75.000	2,367,501	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. This work will identify and prioritize high-risk erosion areas for future treatment and builds on the upper watershed processes landowner workgroup developed by BCWC in Phase 1. 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 outreach work toward the complementary objectives of safeguarding the Battle Creek watershed. <i>Harry Rectenwald, CDFG. Planning / Implementation; 50 percent complete. Project is ongoing.Watershed strategy is complete.Conservation easement planning is complete. Implement an information system for watershed.</i>
112	RES		112 D Status of the implementation of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.	ERP-01-N27	Oct-01	Oct-05	545,170	10,000	545,170	Southern Sonoma County RCD	David Luther		Sonoma Creek Watershed Conservancy	Fish passage enhancement will restore steelhead spawning and rearing habitat. Habitat restoration and enhancement will benefit steelhead and other aquatic/ riparian species. Project is complex, mult objective program to include watershed monitoring, assessment tasks, including salmon escapement. water quality, and benthic macroinvertebrates. Specific tasks include monitoring fish passage enhancements, monitoring of pool enhancement and restoration. <i>Implementation, Monitoring, and Research Project. Project is 70%</i> <i>complete; streambed restoration projects are in progress, in</i> <i>various stages of completion. Chris Taylor, Southern Sonoma</i> <i>County RCD.</i>

-	1	1 1														
-		g					CON	TRACT						e		
be	-	Ž							1					labl		
L L	õ	ect			MS Components or									s ntif		
I SI	B	roj.	Milostono	ERP Targets taken from	Questions for field	ERP PROJECT	START		CALEED Award	Cost Share	Total Project	Applicant	Principal	Dua	Project Name	Commente
2	L. L.	-	WINESLUITE	ENFP VUIZ	112 D Status of the	NUMBERS	DATE	END DATE	SALFED AWARD	SUSL SHARE	0081	Applicati	investigator	05	Contaminant Effects on Smelt	Research and monitoring of listed species
					implementation of a											
					comprehensive monitoring,											
					assessment and research											
					program (CMARP) for aquatic											
					populations acceptable to the											
					fish and wildlife agencies.											
					Conduct range wide surveys											
					for all "R" and "r" covered											
2	ES				MSCS Focus Area.	555 47 444						UCD (Bodega	William A.			
÷	2				112 D Status of the	ERP-97-C06	Jul-98	Jun-01	437,326	none	437,326	Вау)	Bennett		Life History and Stock Composition of	Project 20 percent complete Needed permits to start project
					implementation of a										Steelhead Trout	Monitoring and Research. Yuba County Water Agency funded a
					comprehensive monitoring,											downstream migrant steelhead study.
					assessment and research											
					program (CMARP) for aquatic											
					populations acceptable to the											
					fish and wildlife agencies.											
					Conduct range wide surveys											
					for all "R" and "r" covered											
					MSCS Focus Area.							lanas and				
	S											Stokes	William T			
112	RE					ERP-98-N03	Sep-99	Jun-04	120,000	180,000	300,000	Associates	Mitchell			
					112 D Status of the										Anderson - Cottonwood Irrigation	Installation of fish screens and monitor how effective they are.
					implementation of a										District Fish Passage Improvement	Implementation and Monitoring, project completed.
					assessment and research										Toject	
					program (CMARP) for aquatic											
					habitats and species											
					fish and wildlife agencies											
					Conduct range wide surveys											
					for all "R" and "r" covered											
					plants and animals in the							Anderson -				
					WSCS FOCUS Alea.							Cottonwood	D F			
5	SES					FRP-99-N01	.lun-01	Dec-05	5 100 000	0	5 100 000	District	Dee E. Swearingen			
F	-				112 D Status of the		001-01	200-00	0,100,000	5	0,100,000	District	oweaningen		Anderson - Cottonwood Irrigation	Installation of fish screens and monitor how effective they are.
1					implementation of a										District Fish Passage and Screen	Implementation and Monitoring, project completed.
1					comprehensive monitoring,										Phase 3	
					program (CMARP) for aquatic											
					habitats and species											
1					populations acceptable to the											
1					tish and wildlife agencies.											
1					for all "R" and "r" covered											
1					plants and animals in the							Anderson				
~	s				MSCS Focus Area.							Irrigation	Dee E.			
11	RE					ERP-99-B03	Aug-99	Apr-01	5,100,000	5,100,000	10,200,000	District	Swearingen			
1					112 D Status of the										Genetic Comparison of Steelhead	90 percent completed. Written report is all that remains.
1					comprehensive monitoring										Stocks in Clear Creek	wonitoring and Research
1					assessment and research											
1					program (CMARP) for aquatic											
1					habitats and species											
1					fish and wildlife agencies.											
1					Conduct range wide surveys											
					for all "R" and "r" covered											
					plants and animals in the											
2	ES				WOOD I UCUS AIEd.											
1 -	R C	1			1	ERP-98-C12	Apr-99	Sen-04	45 492	0	45 492	LISEWS	Kevin Niemela			1

		ТТ														
er	1	e be					CON	TRACT	4					ole		
٩ ٩	z	Ţ			MC Components on									fiat		
Ñ	8	ject		FRP Targets taken from	MS Components or Questions for field	FRP PROJECT	START				Total Project		Principal	anti ts		
ΜS	Б	Pro	Milestone	ERPP Vol 2	personnel	NUMBERS	DATE	END DATE	CALFED Award	Cost Share	Cost	Applicant	Investigator	Uni	Project Name	Comments
					112 D Status of the								Ŭ		Spawning Areas of Green Sturgeon in	Monitoring and Research; project completed.
					implementation of a										the Upper Sacramento River	
					comprehensive monitoring,											
					program (CMARP) for aquatic											
					habitats and species											
					populations acceptable to the											
					tish and wildlife agencies.											
					for all "R" and "r" covered											
					plants and animals in the											
N	ŝ				MSCS Focus Area.											
7	R				440.0.01	ERP-98-C13	Apr-99	Sep-01	60,801	0	60,801	USFWS	Kurt Brown			
					112 D Status of the										Monitoring Spring and Winter Run Chinook Salmon and Steelbead in	Monitoring; project completed.
					comprehensive monitoring,										Butte Creek	
					assessment and research											
					program (CMARP) for aquatic											
					nabilats and species											
					fish and wildlife agencies.											
					Conduct range wide surveys											
					for all "R" and "r" covered											
					MSCS Focus Area.											
5	ES						Mar 00	Aug 02	150,000	0	150,000	USFWS (Red	Jamaa C. Smith			
~					112 D Status of the	ERF-90-014	IVIAI-99	Aug-02	150,000	0	150,000	Biuli)	James G. Smith		Improve Upstream Ladder and Barrier	Harry Rectenwald, CDFG. Planning / Design; 70 percent
					implementation of a										Wier @ Coleman National Fish	complete. Planning and designs are nearly complete.
					comprehensive monitoring,										Hatchery at Battle Creek	
					program (CMARP) for aquatic											
					habitats and species											
					populations acceptable to the											
					fish and wildlife agencies.											
					for all "R" and "r" covered											
					plants and animals in the											
2	ŝ				MSCS Focus Area.											
7	RE				140 D 01-1	ERP-99-B08	Dec-99	Oct-05	1,663,400	0	1,663,400	USBR	Carl Werder	<u> </u>		
1	1				TTZ D Status of the implementation of a										Battle Creek Screens and Fish	Not sure but some monitoring was done. Harry Rectenwald, CDFG.
					comprehensive monitoring,										Investigations)	r lanning / Design, project complete.
1	1				assessment and research											
1	1				program (CMARP) for aquatic											
					populations acceptable to the											
					fish and wildlife agencies.											
					Conduct range wide surveys											
					for all "R" and "r" covered											
1	1				MSCS Focus Area.											
12	RES					FRP-98-B16	Sep-98	.lul-04	395 000	0	395 000	U.S. Bureau of Reclamation	Carl Werder			
	Ľ.				112 D Status of the	LINE -90-010	Seh-90	Jui-04	393,000	U	333,000	Reciamation			Stockton East Water and Calaveras	This project will develop plans to monitor existing fish populations.
1	1				implementation of a										County Water Districts Fish Screen	spawning activity, rearing, and habitat limitations to help determine the
1	1				comprehensive monitoring,										Facilities	relative impact of entrainment losses to the populations. Kevin
					program (CMARP) for aquatic											ago to include fish ladder.
					habitats and species											-3
1	1				populations acceptable to the											
1	1				Conduct range wide surveys											
					for all "R" and "r" covered							Oteelstern Ern (
112	RES				plants and animals in the	ERP-01-N59	Aug-02	Jan-05	670.000	none	670.000	Stockton East Water District	Kevin Kauffman			

-	1					1		1			1			<u> </u>		
-		e					CON	TRACT						٥		
be	-	Ţ												labl		
L L	õ	ct			MS Components or									"ĮĮ		
s	B	roje		ERP Targets taken from	Questions for field	ERP PROJECT	START				Total Project		Principal	nits		
Σ	R	ā	Milestone	ERPP Vol 2	personnel	NUMBERS	DATE	END DATE	CALFED Award	Cost Share	Cost	Applicant	Investigator	α⊃	Project Name	Comments
					112 D Status of the										I witchell Island Category III	Contributes to protection and ennancement of Island habitat in the
					comprehensive monitoring										Project	Deita.
					assessment and research										1 10,000	
					program (CMARP) for aquatic											
					habitats and species											
					populations acceptable to the											
					tish and wildlife agencies.											
					for all "R" and "r" covered							Department of				
2	ES				plants and animals in the			5				Water				
÷	2				MSCS Ecous Area	ERP-98-C01	May-99	Dec-03	3,886,995	none	3,886,995	Resources	Curt Schmutte		Distribution and Abundance of Shrimp	This project is a research project that investigates the current
					implementation of a										Plankton and Benthos in Suisun	distribution of native and alien benthos, mysid shrimp, and plankton
					comprehensive monitoring,										Marsh	within the Suisun Marsh. Results will help determine the importance of
					assessment and research											tidal marsh habitat as native species refugia. Research Project not
					program (CMARP) for aquatic											complete. Delayed one year due to contracting difficulties. Some
					habitats and species											sampling has been completed. Peter Moyle, UC Davis.
					fish and wildlife agencies											
					Conduct range wide surveys											
					for all "R" and "r" covered											
					plants and animals in the											
	s				MSCS Focus Area.											
112	RE					ERP-02-P32	Sep-03	Aug-06	271,804		271,804	UC Davis	Peter Moyle			
					112 D Status of the										Biological Assessment of Green	Project will describe the biological characteristics of this species and it
					implementation of a										Sturgeon in the Sacramento-San	habitats for conservation and potential restoration. Peter Klimley,
					comprehensive monitoring,										Joaquin Watershed	UCD. Monitoring / Research. The project is 25 percent complete.
					program (CMARP) for aquatic											caught and tagged. Monitoring sturgeon movement is underway
					habitats and species											
					populations acceptable to the											
					fish and wildlife agencies.											
					Conduct range wide surveys											
					for all "R" and "r" covered											
					MSCS Focus Area.							The Regents of	F			
~	ŝ											the University	Ahmad Hakim-			
7	RE					ERP-02D-P57	Oct-03	Sep-05	998,222	85,478	1,083,700	of California	Elahi			
					112 D Status of the										Adult Fall-Run Chinook Salmon	This project will monitor the upstream movement of fall-run chinook
					implementation of a										Movement in the Lower San Joaquin	salmon in the lower San Joaquin River and South Delta. Bob
					comprehensive monitoring,										River and South Delta	Fujimura, CDFG; wonitoring. Project completed.
					program (CMARP) for aquatic											
					habitats and species											
					populations acceptable to the											
					fish and wildlife agencies.											
					Conduct range wide surveys											
					for all "R" and "r" covered											
					MSCS Focus Area.											
~	s															
1	RE					ERP-98-C11	Feb-99	May-01	285,000	none	285,000	CDFG	Bob Fujimura			
					112 D Status of the										Applied Research to Predict the	Contributes to the development of a delta flow and hydrodynamic
					implementation of a										Evolution of Restored Diked Wetlands	evaluation methodology that can be appropriately used in the
					comprehensive monitoring,											Implementation of an ecologically based plan to restore conditions in
					program (CMARP) for aquatic											aquatic resources. Project contributes to the overall knowledge of
					habitats and species											restoration of diked wetlands in the Delta. Research/Monitoring
					populations acceptable to the											· · · · · · · · · · · · · · · · · · ·
l I					fish and wildlife agencies.											
l I					Conduct range wide surveys											
1					nur all "R" and "I" covered											
1					MSCS Focus Area.											
.	s											University of	Charles			
1 2	١Ŵ				1	ERP-96-M10	Sep-97	Dec-99	475.000	1	475.000	Washington	Simenstad	None		

S Number	GION	oject Type		ERP Targets taken from	MS Components or Questions for field	ERP PROJECT	CON		-		Total Project		Principal	ıantifiable iits		
Β	RE	Pr	Milestone	ERPP Vol 2	personnel	NUMBERS	DATE	END DATE	CALFED Award	Cost Share	Cost	Applicant	Investigator	οu	Project Name	Comments
					112 D Status of the implementation of a comprehensive monitoring, assessment and research program (CMARP) for aquatic.										Culture of Delta Smelt Phase II and III	Research on MSCS listed species. <i>Monitoring and Research.</i> <i>Project is 70 percent complete. Culture phase is done.</i>
					habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.							University of				
2	ŝ					555 44 544					004.050	California,				
÷	~~~~				112 D Status of the implementation of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the	ERP-00-B03	Jui-00	000-03	559,446	431,606	991,052	Davis	Serge Dorosnov		Biological Assessment of Green Sturgeon Phase II	Monitoring and Research. Project completed.
112	RES				fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.	ERP-00-B06	Sep-00	May-02	211.164	205,013	3 (reduced by mod	University of California, Davis	Joseph J. Cech, Jr			
12	SES				112 D Status of the implementation of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.	CVPIA-01-E10			40.890		40.890	LISEWS	L Scott Foott		Health Monitoring of Hatchery and Natural Fall-run Chinook Juveniles in the San Joaquin River System and Delta, April - June 2001	This project will characterize the health and physiological condition both natural and hatchery juvenile chinook in the San Joaquin Riv System and Delta. <i>Scott Foot,USFWS. Monitoring / Research</i>
	<u>~</u>				112 D Status of the implementation of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Ecous Area	<u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u></u>			40,890		40,890	USEWS	J. Scott Foott		Biological Assessment of Green sturgeon in the Sacramento-San Joaquin Watershed	Researching various biological and ecological factors of Green Sturgeon. Monitoring and Research project; 80 percent comple Biological requirements of green sturgeon have been identifie Joe Cech Jr., UC Davis.
12	KES					AFRP-01-06										

112	112	112	MS Number
RES	RES	RES	REGION
			A roject A nilestone
			ERP Targets taken from ERPP Vol 2
112 D Status of the implementation of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the	112 D Status of the implementation of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.	112 D Status of the implementation of a comprehensive monitoring, assessment and research program (CMARP) for aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct range wide surveys for all "R" and "r" covered plants and animals in the MSCS Focus Area.	MS Components or Questions for field personnel
ERP-97-C08	ERP-00-E04	AFRP-02-08	ERP PROJECT NUMBERS
Jan-99 [Jun-00 1		CONTRA START DATE EN
Dec-00	Nov-03		ID DATE
931,857	438,923		CALFED Award
	143,030		Cost Share
	626,953		Total Project Cost
DWR	Southern Sonoma County RCD	AFRP	Applicant
Earle Cummings	Gillian Harris	Tricia Parker, USFWS	Principal Investigator
			Quantifiable Units
San Joaquin River Real-time Water Quality Management Program	Sonoma Creek Watershed Conservancy	Sex-Reversal in Central Valley Chinook Salmon: Occurrence and Population Genetic Consequences	Project Name
Implementation f a comprehensive monitoring, assessment and research program for aquatic habitats. Installation of Stream stage and salinity equipment to generate continuous radio telemetered data from the field. <i>Monitoring project, completed. Ernie Taylor, DWR</i> .	Fish passage enhancement will restore steelhead spawning and rearing habitat. Habitat restoration and enhancement will benefit steelhead and other aquatic/ riparian species. Project is complex, multi-objective program to include watershed monitoring, assessment tasks, including salmon escapement. water quality, and benthic macroinvertebrates. Specific tasks include monitoring and assessment of habitats/species through a volunteer monitoring program. (Project linked to ERP-01- N27). Implementation, monitoring, and research project; Project completed, included riparian restoration, bank stabilization, pool enhancement, and spawning and rearing habitat improvement. Chris Taylor, Southern Sonoma County RCD.	Objective: Perform genetic and histological analyses on fish from the Sacramento and San Joaquin River basins to provide management agencies with information regarding the possible impact sex-reversed fish may have on population persistence of fall-run Chinook. The second year of this project is underway and substantial progress is being made in meeting the objectives of this project. Several hundred adult carcasses from streams in both the Sacramento and San Joaquin drainages were sampled. Fin samples were taken for later analysis for sex specific markers and gonadal samples were taken. In addition 22 crosses were made at UCDavis between 11 females and two males. Females that were normal, apparent sex-reversals, and an intermediate type were used in crosses. These crosses have resulted in juveniles that will be raised to approximately six months of age when they can be identified as to sex. Mortalities have been preserved and will be genotyped to compare departures from random death among and within the families.	Comments

				MULTI	SPECIES (CONSE	ERVATI	ION STR	RATEG	Y MILE	STONE 1	13 ROLLE	ED UF	P SUMMARY		
MIL begi dete the g ripal Sac Rive coop vege banl requ	ESTO n imp rmine germin ian w ramer er. Co berativ etatior ks cor ireme	DNE 113 Develop and elementation of a study to a appropriate conditions for nation and establishment of roody plants along the nto River and San Joaquin omplete development of a ve program to plant n on unvegetated rip rapped nesistent with flood control ents.	F		PROJECTS REVIEWED - ERP-00-F04, ERP-01-N01		SUMMA methodolo the approp of woody r Sacramen results to o riparian pla supply mu NEED to o rapped ba integrity.	ARY One gy to evaluat oriate timing a riparian plants to and San J select additio ant establish the of the found develop the con nks, including	e rather signif te Delta flow and condition s along the C oaquin River nal study site ment in the S ndational info ooperative pr g authorizatic	icant contrac and hydrody is for optimur iosumnes Ri systems. A se for develo an Joaquin f rmation to a rogram to pla on from those	t was granted for namic patterns a m germination a ver, wider applic nother effort utili nother effort utili nig a conceptu River Basin. The chieve the miles nt woody vegets a uthorities resp	or developing a and to determine nd establishment ation to the zes pilot study al model for ese studies may tone, yet we ation on rip ponsible for levee			AGENCY NOTES	NOTES CONT'D
		MULTI SPECIE	S CONSERV	ATION STRATEGY	MILESTO	NE 11	3 EV	ALUATI	ON OF	INDIVIE	DUAL PRO	DJECTS RE	EVIEV	VED TO FORMULATE T	THE ROLLED UP SUM	IARY
MS Number	REGION	ect Type Joject Milestone	ERP Targets taker from ERPP Vol 2	MS Components or Questions for field personnel	ERP PROJECT NUMBERS	CON START DATE	END DATE	CALFED Award	Cost Share	Total Project Cost	Applicant	Principal Investigator	Quantifiable Units	Project Name	Comme	nts
13	RES	Develop and begin implementation of a study to determine appropriate conditions for the germination and establishment of riparian woody plants along the Sacramento River and San Joaquin River. Complete development of a cooperative program to plant vegetation o unvegetated rip rapped banks consistent with flood control requirements.	n	113 A Status of development of a study to determine appropriate conditions for the germination and establishment of riparian woody plants along the Sacramento River and San Joaquin River.	EPP.01-N01	lan_02	Dec.04	2 521 236		2 521 236	University of California, Davis	Dr. James Quinn		The Influences Flood Regimes, Vegetative and Geomorphic Structures on the Links between Aquatic & Terrestrial Systems.	PORTION OF MILESTONE ADE development of the methodology hydrodynamic patterns. Research. are 1 1/2 years in	RESSED: Contributes to the for evaluating delta flow and Project not completed. They to the project
113	RES			113 A Status of development of a study to determine appropriate conditions for the germination and establishment of riparian woody plants along the Sacramento River and San Joaquin River.	ERP-00-F04	Feb-00	Dec-04	223,666		223,666	Stillwater Sciences	John Stella		A Mechanistic Approach to Riparian Restoration in the San Joaquin Basin Phase I and II	This project will identify the physic affecting the establishment of riparia Basin, in order to identify the most of for riparian protection and restoration Conceptual Model of Riparian Plant E and Select Study Sites. Phase II: Restoration Model Based on Sar <i>Research project completed</i>	al and biological mechanisms n vegetation in the San Joaquin ost-effective strategies and sites Phase I: Develop a Mechanistic stablishment, Analyze Pilot Data, Develop a Physical/Biological Doaquin Basin Study Sites. d. Jeff McLain, USFWS.
113	RES			113 B. Status of implementation of the development of a cooperative program to plant vegetation on unvegetated rip rapped banks consistent with flood control requirements.												

					MULTI	SPECIES	CONSE	RVAT	ION ST	RATEG	Y MILE	STONE 1	14 ROLI	LED U	P SUMMARY		
MII stu the ver on	ESTC dy to ir road t nal poo vernal	DNE nves throi ol h poc	114 Conduct a stigate the effects of ugh Olcott Lake on ydrology and impacts ol species.			PROJECTS REVIEWED -		SUMMA through OI species. N road and it	NRY No cott Lake or JEED to soli s impacts o	contracts we n vernal pool icit for propos n vernal pool	re issued to nydrology a als that wou species.	investigate the e nd impacts on ve ild investigate the	effects of the road rnal pool e effects of the			AGENCY NOTES	NOTES CONT'D
			MULTI SPECIES	S CONSERV	ATION STRATEGY	/ MILESTC	DNE 11	4 EV.	ALUAT	ION OF	INDIV	DUAL PR	OJECTS F	REVIE	WED TO FORMULATE	THE ROLLED UP SUM	MARY
MS Number	NOI DE RES	Project Type	Milestone Conduct a study to investigate the effects of the road through Olcott Lake on vernal pool hydrology and impacts on vernal pool species.	ERP Targets taken from ERPP Vol 2	MS Components or Questions for field personnel 114 A Status of a study to investigate the effects of the road through Olcott Lake on vernal pool hydrology and impacts on vernal pool	ERP PROJECT NUMBERS	CONT START DATE	RACT END DATE	CALFED Award	Cost Share	Total Project Cost	Applicant	Principal Investigator	Quantifiable Units	Project Name	Comme	nts

					MULTI S	SPECIES C	ONSE	RVATI	ON STR	RATEG	Y MILE	STONE 1	15 ROLL	ED UF	P SUMMARY		
Mi ins the sta fis	LES1 stream ages of h spe	ONE a flow s nec of ana ccies.	115 Conduct studies to determine essary to support all life dromous and estuarine			PROJECTS REVIEWED - ERP-99-N02, ERP-00-804, ERP-01-C02, AFRP-2003-02, AFRP-2003-06		SUMMA knowledge of anadron yet, throug agencies, evaluate h temperatu parameter to define tf milestone	ARY Sim e in order to o nous and esi h ERP or ott researchers abitats for ta re, and D.O. s for maximu he paramete expectations	pply stated, the determine the tuarine fish sher actions. and restorat argeted speci- conditions a um environm ers of this mile s. It is too op	his mileston ose "flows n ppecies." W NEED to st ion ecologis es correlate and provide t ental benefi estone like " en-ended, r	e calls for a mon lecessary to sup e have not gaine imulate partners its to prepare stu d with different f feed back to opti t balanced with o 'support" and be now.	umental amount of port all life stages ad that knowledge hips among udies that would low regimes, mize those other needs. Need tter define the			AGENCY NOTES	NOTES CONT'D
			MULTI SPECIES	S CONSERV	ATION STRATEGY	MILESTO	NE 115	5 EVA	ALUATI	ON OF	INDIVI	DUAL PR	OJECTS RI	EVIEV	VED TO FORMULATE 1	THE ROLLED UP SUMN	IARY
		Project Type	Milestone	ERP Targets taken from ERPP Vol 2	MS Components or Questions for field personnel	ERP PROJECT NUMBERS	CONT START DATE	END DATE	CALFED Award	Cost Share	Total Project Cost	Applicant	Principal Investigator	Quantifiable Units	Project Name	Comme	nts
	6 4		Conduct instream flow studies to determine the flows necessary to support all life stages of anadromous and estuarine fish species.		115 A. Status of the instream flow studies conducted to determine the flows necessary to support all life stages of anadromous and estuarine fish species.	ERP-01-C02	Oct-01	Sep-04	418.700	0	418.700	CDWR	John Clements		Real-Time Flow Monitoring	Project provides for the continued op stream gauging stations and associa three-year period. <i>Paul Ward, CDF</i> <i>Mill, Deer, Big Chico and Butte cre</i> <i>complet</i>	eration and maintenance of 18 ed telemetry equipment over a G. Install 18 flow meters on eks. Implementation; project ed.
					115 A. Status of the instream flow studies conducted to determine the flows necessary to support all life stages of anadromous and estuarine fish species.										Up-Migration and Straying of Tuolumne River Salmonids in Response to Fall Attraction Flows and Environmental Factors	Objective: The proposed study wil environmental explanatory variables arrival timing of fall run Chinook salm and b) the annual proportion of stray San Joaquin basin that are recovered Environmental variables will include f meteorology. Annual carcass survey used to indicate the upmigration timi large. CWT recovery of Merced River released in the San Joaquin basin trit numbers recovered in the American, F the Sacramento River basin. The pro staff, Tuolumne River Technical California Bay-Delta Program E proposal was revised and later September	examine the relationship of with: a) the annual variation in on in the lower Tuolumne River, coded wire tag (CWT) from the in Sacramento River tributaries. ow, water quality, and regional s of the Tuolumne River will be ig of the San Joaquin basin at Fish Facility (MRFF) tag codes utaries will be compared to the eather and Mokelumne Rivers in posal was reviewed by AFRP Advisory Committee, and RP staff in July 2003. The accepted by the AFRP in 2003.
;					115 A. Status of the instream	AFRP-2003-02						AFRP	Jeff McLain USFWS		Focused Action to Develop	Parsing document identifies achievem	ent of this milestones can be met
					flow studies conducted to determine the flows necessary to support all life stages of anadromous and estuarine fish species.	ERP-00-B04	Feb-01	Jul-02	295,925		295,925	Natural Heritage Institute	John Cain		Ecologically-based Hydrologic Models and Water Management Strategies in the San Joaquin Basin	through modeling research. Proje frequent, magnitude, and duration regenerate and sustain native ripari aquatic organisms as well as natur- processes. Project Task 2: Identify strategies for modifying reservoir rele water delivery schedules and practic maximize ecological benefit	t Task I: Identify the timing, of flood flows necessary to an vegetation, fish, and other al floodplain and alluvial river innovative water management ase operations or reconfiguring ase in the San Joaquin Basin to Project completed .

115	115 MS	S Number
RES	RES RE	GION
	Pro	oject Type
	Milestone	
	from ERPP Vol 2	ERP Targets taken
115 A. Status of the instream flow studies conducted to determine the flows necessary to support all life stages of anadromous and estuarine fish species	personnel 115 A. Status of the instream flow studies conducted to determine the flows necessary to support all life stages of anadromous and estuarine fish species.	MS Components or Questions for field
ERP-99-N02	NUMBERS	ERP PROJECT
Aua-99	DATE	CONT
Oct-01	DATE	RACT
823.000	Award	CALFED
0	Cost Share	
823.000	Cost	Total Project
UCD	Applicant	
Joseph J. Cech Jr.	Investigator Cesar Blanco USFWS	Principal
	<u>ð5</u>	uantifiable nits
Fish Treadmill Developed Fish Screen Criteria for Native Sacramento - San Joaquin Watershed Fishes	Project Name Lower American River Temperature Reduction Modeling Project	
Joseph J. Cech Jr., U.C. Davis. Monitoring and Research; project completed.	Comments 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. <i>Ongoing</i>	

					MULTIS	SPECIES	CONSE	ERVAT	ION ST	RATEG	IY MILE	STONE	116 ROLL	ED U	IP SUMMARY		
M in fc si fi: in re p	ILES vestig ructur Ilowin litabili shes; teract comm edatio	rone ation es tha g issu ty for (2) pre ions; ; nenda on on	116 Conduct an of in-channel at focuses on the les: (1) habitat both predator and prey edator-prey and (3) tions for reducing juvenile salmonids.			PROJECTS REVIEWED - ERP-01-N03		SUMM/ additional indirectly to the comple- nuances of effective rr milestone milestone	ARY So contracts the bear on aspe ex questions if habitat sui ecommenda has not bee by solicitatic	me contracts at were spec ects of this m relating to p tability, and e tability, and e n addressed. n or directed	were associ ific to Milesto ilestone, but redator-prey ispecially tho cing predati NEED to for action.	ated with this r nes 23, 71, 88 no contracts s interactions, t ise aspects tha on on juvenile bcus actions to	nilestone and a, and others may pecifically address heir behavior, at would provide for salmonids. This achieve this			AGENCY NOTES	NOTES CONT'D
			MULTI SPECIE	S CONSERV	ATION STRATEGY	MILESTO	DNE 11	6 EV	ALUAT	ION OF	INDIVI	DUAL PI	ROJECTS R	EVIE	WED TO FORMULATE	THE ROLLED UP SUM	MARY
	REGION	Project Type	Milestone	ERP Targets taken from ERPP Vol 2	MS Components or Questions for field personnel	ERP PROJECT NUMBERS	CON1 START DATE	END DATE	CALFED Award	Cost Share	Total Project Cost	Applicant	Principal Investigator	Quantifiable Units	Project Name	Commer	nts
	RES		Conduct an investigation of in- channel structures that focuses on the following issues: (1) habitat suitability for both predator and prey fishes; (2) predator-prey interactions; and (3) recommendations for reducing predation on juvenile salmonids.		116 A Status of the investigation of in-channel structures that focuses on habitat suitability for both predator and prey fishes												
	RES				116 B Status of the investigation of in-channel structures that focuses on predator-prey interactions												
	RES				116 C Status of the investigation of in-channel structures that focuses on recommendations for reducing predation on juvenile salmonids.	ERP-01-N03	Nov-01	Nov-04	543,530	0 0	543,530	Turlock Irrigation District	Wilton Fryer		Tuolumne River Restoration: Special Run Pool 10	Project will fill in deep lake like pool a gravel mining thus reducing salmo <i>McLain, USFWS. Proj</i>	reas created by past instream n fish predator habitat. Jeff iect completed.

					MULTI	SPECIES (CONSE	RVATI	ON ST	RATEG	Y MILE	ESTONE 1	17 ROLL	ED U	IP SUMMARY		
MII exp Sad per	EST erima eramo ennia	ONE ental ento al aqu	117 Conduct introductions of perch into nontidal jatic habitats			PROJECTS REVIEWED - ERP-02-P34		SUMMA Sacrament Estuary. T early life hi basic biolo	RY One o Perch to s his project i story, envirc gical informa	e contract ad self-sustainin s the critical nmental tole ation crucial	dresses dev g wild popul first step in I rrance, and to a restorat	reloping strategie lations in the San bridging the know genetics of Sacra ion plan.	is to restore Francisco vledge gap about amento perch,			AGENCY NOTES	NOTES CONT'D
			MULTI SPECIE	S CONSERV	ATION STRATEGY	/ MILESTO	NE 11	7 EV	ALUAT	ION OF	INDIV	IDUAL PR	OJECTS R	REVIE	WED TO FORMULATE	THE ROLLED UP SUM	MARY
MOLTT SPECIES CONSERVATION STRATEGY MILESTONE TT7 EVALUATION OF INDIVIDUAL PROJECTS REVIEWED TO FORMULATE THE ROLLED OF SOMULATE THE ROLLED OF SOMULATES.													nts ategies to restore Sacramento is in the San Francisco Estuary, ch long-term future in Central complete due to contracting es				

					MULTI S	SPECIES (CONSEI	RVATI	ON STI	RATEG	Y MILE	STONE 1	18 ROLL	ED UI	P SUMMARY		
N ii i r C c c t t a s	ILES npact atural hinoc perate ponsist lat wil I Cen almor	TON of ha ly spa k sal e hato ent w I mai tral V id po	E 118 Assess the tchery practices on awning populations of non and steelhead and theries in a manner ith safe genetic practices ntain genetic integrity of alley anadromous pulations.			PROJECTS REVIEWED - AFRP-2000-29, AFRP-2000-36		SUMMA some AFR indirectly b NEED to g result in sy issue.	ARY No P and other ear on this r enerate spe rstematic, sc	ERP contrac routine work nilestone top cific studies i ientifically ba	ts specifical performed bic, especiall that have Ce ased recomr	ly addressed this by State and fed y agency hatche entral Valley wide nendations and g	milestone, but eral agencies ry operations. application and guidance on this			AGENCY NOTES	NOTES CONT'D
			MULTI SPECIES	CONSERV	ATION STRATEGY	MILESTO	NE 118	8 EVA	ALUATI	ON OF	INDIVI	DUAL PR	OJECTS R	EVIE	WED TO FORMULATE	THE ROLLED UP SUM	MARY
	MS Number	REGION	Milestone	ERP Targets taken	MS Components or Questions for field personnel	ERP PROJECT	CONTE START	END	CALFED Award	Cost Share	Total Project Cost	Applicant	Principal Investigator	Quantifiable Jnits	Project Name	Comme	ints
	8	S	Assess the impact of hatchery practices on naturally spawning populations of Chinook salmon and steelhead and operate hatcheries in a manner consistent with safe genetic practices that will maintain genetic integrity of all Central Valley anadromous salmonid populations.		118 A. Status of the assessment of the impact of hatchery practices on naturally spawning populations of Chinook salmon and steelhead								Tricia Parker		Assist with analysis of alternative hatchery management strategies in order to integrate operations with the restoration of natural populations of chinook salmon and steelhead in Battle Creek	There are four major components o proces Compilation and analysis of histo evaluatior Determine mitigatio Conduct impact analyses of current on listed stocks of anac Suggest potential management a <i>Funded throw</i>	robjectives of the reevaluation ss: vical hatchery operations and work n responsibilities //proposed production programs fromous salmonids liternatives where appropriate ugh 2001
	18	ES			118 A. Status of the assessment of the impact of hatchery practices on naturally spawning populations of Chinook salmon and steelhead	AFRP-2000-36						AFRP	USFWS Cesar Blanco		Winter-run carcass survey on the upper mainstem Sacramento River	Objective: To estimate escapement origin winter Chinook salmon; colle spawning population of winter Chin temporal distribution of spawning); e winter Chinook salmon propagation future genetic analysis. Collected in AFRP restoration goals, determine th supplementation program and ass diversity in hatchery and natural stock	of hatchery-produced and wild- ict baseline information on the ook salmon (i.e. age, sex ratio, valuate the effectiveness of the program; and collect tissue for iformation will serve to assess he effectiveness of the hatchery sist in the maintaining genetic rs. Project completed in 2000 .

				MUL	TI SPECIE	S CON	SERVA	ATION STR	RATEG	Y MILESTO	ONE 119 -	- ROLLED	UP SI	JMMARY		
MIL of e prog saln with Mor com repo amo to th	ESTONE rams, mi ionid retu n the MS itoring te pilation a rting sho ng resea e greate	119 Through the use xpanded, and new onitor adult anadromous urns to each watershed SCS focus area. Echniques, data and analysis, and build be standardized urchers and watersheds st extent possible.			PROJECTS REVIEWED ERP-98-B15, ERP-98-C11, ERP 98-C14, ERP-99- N13, ERP-00-E04, ERP-01-N27, ERP 01-N44, ERP-01- N45, AFRP-2000-29, AFRP-2002-09, AFRP-2003-03, AFRP-2003-03, AFRP-2003-05, WSP-01-FP-082		SUMMA efforts that salmonid r of standart techniques collaborati collaborati effective ir	ARY Several d t are existing, exp returns to each wa dization among re s, data compilation ve synthesis of pr brs. A small subg n this endeavor.	contracts are anded, or ne itershed with searchers a n and analys otocols and roup of rese	e linked to this milk w programs that hin the MSCS focu nd watersheds in is, and reporting. experimental desi archers working w	estone, and them monitor adult an is area. The iss the areas of mon NEED to accor gn to be adopte with the Science	e may be other adromous ue is the degree hitoring mplish a d by all Program could be			AGENCY NOTES	NOTES CONT'D
		MULTI SPEC	CIES CONSE	RVATION STRATE	GY MILES	TONE [^]	119 E	EVALUATIO	ON OF	INDIVIDUA	AL PROJE	CTS REVI	EWED) TO FORMULATE THE	ROLLED UP SUMMAR	Y
MS Number	REGION Project Type	Milestone	ERP Targets taken from ERPP Vol 2	MS Components or Questions for field personnel	ERP PROJECT NUMBERS	CONT START DATE	END DATE	CALFED Award	Cost Share	Total Project Cost	Applicant	Principal Investigator	Quantifiable Units	Project Name	Commer	ts
19	ES	Through the use of existing, expanded, and new programs, monitor adult anadromous salmonid returns to each watershed within the MSCS focus area. Monitoring techniques, data compilation and analysis, and reporting should be standardized among researchers and watersheds to the greatest extent possible.		119 A. Status of monitoring program for adult anadromous salmonid returns to each watershed within the MSCS focus area.												
19	S			119 A. Status of monitoring program for adult anadromous salmonid returns to each watershed within the MSCS focus area.								James G. Smith		Sacramento River Winter Chinook Salmon Carcass Study	Monitoring of Winter -run salmon carca Monitoring; the project is ongoin	sses on the Sacramento River. ng. Two years completed.
11	ES			119 A. Status of monitoring program for adult anadromous salmonid returns to each watershed within the MSCS focus area.	ERP-01-N46	May-01	Dec-05	391,019	0	391,019	USFWS	James G. Smith		Battle Creek Anadromous Salmonid Monitoring Projects	Monitoring projects on chinook salmoi project on-g	in Battle Creek. <i>Monitoring;</i> oing.
119	RES			119 A. Status of monitoring program for adult anadromous salmonid returns to each watershed within the MSCS focus area.	AFRP-2000-24	Jul-01	Jun-U5	1,736,073	0	1,736,073	AFRP	Jeff McLain USFWS		Analyze archived San Joaquin Basin chinook salmon scale samples and develop a comprehensive database accessible to interested parties	Objective: Process and analyze the ex Joaquin Basin to determine age struc Chinook salmon. This information will p understanding of the variables that affe San Joaquin salmon. Results from information needed to carry out a deta <i>inventory, reabsorption assessmen</i> <i>complete for all Chinook scales</i>	sting scale samples for the San ture of returning adult fall-run rovide managers with a clearer ct the ultimate production of the this project will provide the uiled cohort analysis. Detailed and scale reading is nearly between 1976 and 1999.

Ŀ		be				CONT	RACT						ole		
ф Ц	z	f Ty		MS Components of									ifiat		
Nu	GIO	ojec		ERP Targets taken Questions for field	ERP PROJECT	START	END			Total Project		Principal	ant its		
Ň	RE	Pre	Milestone	from ERPP Vol 2 personnel	NUMBERS	DATE	DATE	CALFED Award	Cost Share	Cost	Applicant	Investigator	ъ	Project Name	Comments
				119 A. Status of monitoring										Monitoring Spring and Winter Run Chinook Salmon and Steelbead in	Monitoring; project completed.
				salmonid returns to each										Butte Creek	
				watershed within the MSCS											
				locus area.											
	s										USFWS (Red				
119	RE				ERP-98-C14	Mar-99	Aug-02	150,000	0	150,000	Bluff)	James G. Smith			
				119 A. Status of monitoring										Estimating the Abundance of Sacramento, River Juvenile Winter-run	Monitoring downstream migrating winter-run salmonids. <i>Monitoring;</i>
				salmonid returns to each										Chinook Salmon with Comparison to	project en genigr
				watershed within the MSCS										Adult Escapement	
				locus area.											
6	ŝ														
7	RE				ERP-01-N44	Oct-01	Sep-04	1,211,903	0	1,211,903	USFWS	James Smith			
				program for adult anadromous										Implementation Plan for a Statistically	the proposal was to develop a plan for marking, tagging, and
				salmonid returns to each										Designed Marking and Recovery	recovering salmon and to detail the steps required to implement such a
				watershed within the MSCS											plan. David Hankin, Humboldt State University. Planning; The
				locus area.							Humboldt State				completed.
6	ŝ										Department of				
;	R			110 A Status of monitoring	ERP-99-N13	Oct-02	Nov-04	94,657	0	94,657	Fisheries	Dr. David Hankin		Evoluction of Increasing Tagging	Contributes to research and monitoring colmon. This project will
				program for adult anadromous										Levels for Chinook Salmon and	evaluate current tagging practices and demonstrate a technique for the
				salmonid returns to each										Steelhead and a Demonstration	mass marking of hatchery produced salmon, to support subsequent
				focus area.										Project on Mass Marking	evaluating of harvest practices. Tasks include the evaluation of hatchery stocking, tagging, recovery data, alternative tagging
															approaches and concomitant benefits/risks, and the demonstration
											Northwest				tagging of hatchery stock at various Central Valley hatcheries. Dave Knutson Northwest Marine Technology Monitoring: Tagging is
	ŝ										Technology,				complete. Data still needs to be analyzed.
119	RE				ERP-98-B15	Aug-98	Jun-02	697,632	0	697,632	Inc.	Guy Thornburgh			
				program for adult anadromous										Conservancy: Outreach and	I hrough the use of new programs, monitor adult anadromous salmonid returns to each watershed within the MSCS focus area. Task
				salmonid returns to each										Restoration	3: Steelhead population assessment: Planning to restore a self-
				watershed within the MSCS											sustaining steelhead population requires and assessment of the
															existing population. There has never been a population study in the
6	ŝ										Sonoma				watershed.
÷	R			119 A Status of monitoring	WSP-01-FP-082	Jun-01	Jun-03	270,541	319,900	590,441	Ecology Center	Catilin Cornwall		Evaluating the Success of Spawning	Objective: The objective of the study is to determine the location
				program for adult anadromous										Habitat Enhancement on the Merced	and number of redds in the Robinson Reach and to assess the
				salmonid returns to each										River, Robinson Reach	suitability of spawning habitat based on level of use. This study
				focus area.											design features of future phases of MRSHEP and that can be
															applied to other restoration efforts on rivers of similar scale and
															investigated to accomplish the objective: 1. Chinook salmon
															redd densities will be higher in the constructed portion of the
															Robinson Reach than in the adjacent upstream and downstream
															equal to or higher in the constructed portion of the Robinson
															Reach than those that occurred in the Robinson Reach prior to
															along the Robinson Reach and is not spread evenly or randomly
															throughout the reach. 4. The quantity of spawning is significantly
															different among spawning area designs.
19	SES				AERR 2003 03			140 440		149 440	AEDD	Jeff McLain			

		e					CONT	RACT						ⁿ	
mber	z	t Typ												fiable	
S Nu	EGIO	rojec		ERP Targets taken	Questions for field	ERP PROJECT	START	END			Total Project		Principal	uanti nits	
Σ	8	4	Milestone	from ERPP Vol 2	personnel 119 A Status of monitoring	NUMBERS	DATE	DATE	CALFED Award	Cost Share	Cost	Applicant	Investigator	α⊃	Project Name Comments Adult Fall-Run Chinook Salmon This project will monitor the unstream movement of fall-run chinook
					program for adult anadromous										Movement in the Lower San Joaquin salmon in the lower San Joaquin River and South Delta. Bob
					salmonid returns to each										River and South Delta <i>Fujimura, CDFG. Monitoring. Project completed.</i>
19	ES				focus area.		E-1 00	May 04	005 000		005 000	0050	Dah Eulimuna		
-	2				119 A. Status of monitoring	ERP-98-C11	Feb-99	May-01	285,000	none	285,000	CDFG	BOD Fujimura		VAKI Riverwatcher Fish Monitoring Objective: The objective is to purchase two (2) VAKI Riverwatcher fis
					program for adult anadromous										System at Daguerre Point Dam counting systems with digital camera units in order to track and record
					salmonid returns to each										tish movement through the tish ladders at Daguerre Point Dam. Systems were installed on the ladders at Daguerre Point Dam in
					focus area.										July 2003. The solar systems used to power the VAKI units were
															not sufficient to provide reliable operation; hence PRAQUA, the
															additional solar panels at no cost in order to achieve reliable
															operation of the VAKI units. The additional solar panels should
	~												Cooor Plance		be in place by September 2003.
119	RE					AFRP-2003-01						AFRP	USFWS		
					119 A. Status of monitoring										Lower Yuba River Juvenile Chinook Objective: Better understand the life history, population trends, and
					salmonid returns to each										best improve the adaptive management, including actions such as fis
					watershed within the MSCS										restoration projects and providing appropriate in-stream flow regimes
19	ES				tocus area.								Cesar Blanco		Project is entering its second year of funding.
-	~				119 A. Status of monitoring	AFRP-2002-09						AFRP	USEWS		Distribution and Relationship of Objective: To examine the occurrence and distribution of anadromou
					program for adult anadromous										Resident and Anadromous Central and non-anadromous rainbow trout. Otoliths of juvenile trout from
					salmonid returns to each watershed within the MSCS										Valley Rainbow Frout many Central Valley watersheds will be analyzed to determine parent life history strategy (anadromous or resident). The determination will
					focus area.										be based on examination of the ratio of strontium to calcium within the
															otolith. Otoliths are being collected (July 2003-July 2005). Collection: have been made from Deer Creek, and the Calaveras, upper
															Sacramento and Yuba Rivers. Initial data should be available Januar
6	ŝ												JD Wikert		2004. Project in progress.
-	R				119 A. Status of monitoring	AFRP-2003-05						AFRP	USFWS		Winter-run carcass survey on the Objective: To estimate escapement of hatchery-produced and wild-
					program for adult anadromous										upper mainstem Sacramento River origin winter Chinook salmon; collect baseline information on the
					salmonid returns to each										spawning population of winter Chinook salmon (i.e. age, sex ratio,
					focus area.										winter Chinook salmon propagation program; and collect tissue for
															future genetic analysis. Collected information will serve to assess
															AFRP restoration goals, determine the effectiveness of the hatchery supplementation program and assist in the maintaining genetic
													O		diversity in hatchery and natural stocks. Project completed in 2000
119	RES					AFRP-2000-29						AFRP	USFWS		
					119 B. Status of										Sonoma Creek Watershed Fish passage enhancement will restore steelhead spawning and
					techniques, data compilation										steelhead and other aquatic/ riparian species. Project is complex,
					and analysis, and reporting										multi-objective program to include watershed monitoring, assessment
					among researchers and watersheds to the greatest										tasks, including salmon escapement, water quality, and benthic macroinvertebrates. Specific tasks include salmon escapement
					extent possible.										monitoring. (Project linked to ERP-00-E04). <i>Implementation,</i>
															Monitoring, and Research Project. Project is 70% complete; streambed restoration projects are in progress, in various stand
												0 "			of completion. Chris Taylor, Southern Sonoma County RCD.
	s											Southern Sonoma			
115	RE					ERP-01-N27	Oct-01	Oct-05	545,170		545,170	County RCD	David Luther		

119	MS Number
RES	REGION
	Project Type
	Milestone
	ERP Targets taken from ERPP Vol 2
119 B. Status of standardization of monitoring techniques, data compilation and analysis, and reporting among researchers and watersheds to the greatest extent possible.	MS Components or Questions for field personnel
ERP-00-E04	ERP PROJECT NUMBERS
Jun-00	CONT START DATE
Nov-03	RACT END DATE
438.923	CALFED Award
143,030	Cost Share
626.953	Total Project Cost
Southern Sonoma County RCD	Applicant
Gillian Harris	Principal Investigator
	Quantifiable Units
Sonoma Creek Watershed Conservancy	Project Name
Fish passage enhancement will restore steelhead spawning and rearing habitat. Habitat restoration and enhancement will benefit steelhead and other aquatic/ iparian species. Project is complex, multi-objective program to include watershed monitoring, assessment tasks, including salmon escapement. water quality, and benthic macroinvertebrates. Specific tasks include salmon escapement monitoring. (Project linked to ERP-01-N27). Implementation, monitoring, and research project; Project completed, included riparian restoration, bank stabilization, pool enhancement, and spawning and rearing habitat improvement. Chris Taylor, Southern Sonoma County	Comments