

Fish Screen Improvements

These types of projects are designed to reduce or eliminate losses of fish through entrainment at water diversions. They can include reallocation or consolidation of points of diversion and the construction or rehabilitation of fish screens at diversions.

Map ID	Project Description	Applicant or Administrator	Geographic Area	FY 98 Federal	Prop 204 (Category III)	CUWA	EPA Watershed	Prop 204 (CVPIA)	CVPIA	Other Funding Sources
1	Select fish screens on the Sacramento River and Tributaries	Department of Fish and Game	Sacramento Mainstem and Mill, Deer and Butte Creeks		446,250					151,000
2	RD 108 fish screen at Wilkins Slough Pumping Plant	Reclamation District 108	Sacramento Mainstem		2,500,000			1,300,000	1,300,000	
3	Princeton fish screen (RD 1004)	Reclamation District 1004	Sacramento Mainstem		1,750,000			880,000	880,000	
4	Wilson Ranch fish screen	Deseret Farms of California	Sacramento Mainstem			200,000				
12	Battle Creek screens and fish passage	Department of Water Resources	Sacramento Tributaries/Battle Creek			395,000			395,000	
14	Gorrill Dam screen and ladder	Gorrill Land Company	Sacramento Tributaries/Butte Creek			369,641		304,256	788,000	50,000
15	Adams Dam screen and passage	Ducks Unlimited	Sacramento Tributaries/Butte Creek			242,000		225,000	508,000	150,000
21	Hastings Tract fish screen feasibility study	Hastings Island Land Company	Delta			27,000				
38	Banta-Carbona fish screen	Banta-Carbona Irrigation District	San Joaquin Mainstem			938,875		938,875	45,000	1,991,750
51*	Richter Brothers screen	Henry D. Richter, Jr.	Sacramento Mainstem	49,000						
52*	Boeger Family Farm screen	Boeger Family Farms	Sacramento Mainstem	15,000						
61*	Woodbridge fish screen and passage	Woodbridge Irrigation District	Mokelumne River/East Side Tributaries	1,575,000						

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62*	Selected fish screens - Suisun Marsh	Department of Fish and Game	Suisun Marsh		2,784,600					151,000
*	Small Diversion Fish Screens Program	NRCS		900,000						
* **	Alternatives to Fish Screens Research Program	To be determined			200,000					
Total Fish Screen Improvements				2,539,000	7,680,850	2,172,516	-	3,648,131	3,916,000	2,493,750

* These projects/programs have been approved by CALFED Policy Group and are pending approval from the Secretary of Resources and/or the Secretary of the Interior.

** Some of these focused grants and designated actions may be funded from the CUWA funds.

Fish Passage Improvements

These types of projects include removal of barriers, construction of fish ladders, improvements to water quality and other modifications to improve fish passage by removing physical or other types of obstructions.

Map ID	Project Description	Applicant or Administrator	Geographic Area	FY 98 Federal	Prop 204 (Category III)	CUWA	EPA Watershed	Prop 204 (CVPIA)	CVPIA	Other Funding Sources
17	Saeltzer Dam fish passage	Townsend Flat Water Ditch Company	Sacramento Tributaries/Clear Creek			238,200				150,000
53*	Anderson-Cottonwood Irrigation District fish passage	Anderson-Cottonwood Irrigation District	Sacramento Mainstem	325,000						50,000
*	Fish Passage Program	USBR		8,000,000						
* **	Fish Passage Assessment Program	To be determined			500,000					
Total Fish Passage Improvements				8,325,000	500,000	238,200	-	-	-	200,000

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E-029707

Habitat Restoration in Floodplains and Marshes

These are restoration actions associated with floodplain area and marshlands. They can include reconnection of the floodplains with the river system through modifications to levee systems, floodplain easements or other methods. They can include restoration of seasonal wetland areas.

Map ID	Project Description	Applicant or Administrator	Geographic Area	FY 98 Federal	Prop 204 (Category III)	CUWA	EPA Watershed	Prop 204 (CVPIA)	CVPIA	Other Funding Sources
31	Cosumnes floodplain acquisition and restoration	Wildlife Conservation Board, The Nature Conservancy	East Side Tributaries/Cosumnes River		10,374,300					7,800,000
36	Cullinan Ranch restoration	Ducks Unlimited	North Bay		368,500					662,000
37	Tolay Creek restoration	Ducks Unlimited	North Bay/Tolay Creek		283,000					422,000
42	San Joaquin River floodplain acquisition and riparian restoration (SJR NWR)	USFWS	San Joaquin Mainstem	10,647,000						9,353,000
43	Bear Creek floodplain restoration demonstration project (NLNWR)	USFWS	San Joaquin Tributaries/Bear Creek	334,000						80,000
47	Tuolumne River channel restoration (Special Run Pool 9)	Turlock Irrigation District	San Joaquin Tributaries/Tuolumne River			2,353,100			249,000	46,000
48	Tuolumne River setback levees and channel restoration (Mining Reach)	Turlock Irrigation District	San Joaquin Tributaries/Tuolumne River			2,801,000			3,512,000	50,000
59*	Cache Slough Habitat Enhancement	Reclamation District 2060	Delta	85,000						
64*	Merced River Ranch acquisition and restoration	Department of Fish and Game	San Joaquin Tributaries/Merced River		658,000					45,500
67*	San Francisco Bay Area wetlands ecosystem goals project	US EPA	North Bay	76,000						200,000
68*	Hamilton wetland restoration	San Francisco Bay Conservation and Development Commission and California Coastal Conservancy	North Bay		1,000,000					1,324,000

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Map ID	Project Description	Applicant or Administrator	Geographic Area	FY 98 Federal	Prop 204 (Category III)	CUWA	EPA Watershed	Prop 204 (CVPIA)	CVPIA	Other Funding Sources
71*	South Napa River wetlands acquisition and restoration	Napa County Land Trust	North Bay	1,000,000						
*	Habitat Restoration/Flood Control Bypasses Program	USCOE		1,200,000						
*	Floodplain Restoration/Habitat Restoration on existing conservation lands Program	USFWS		14,000,000						
Total Habitat Restoration in Flooplains and Marshes				27,342,000	12,683,800	5,154,100	-	-	3,761,000	19,982,500

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River Channel Changes

River channel work includes stream bed alterations to increase channel complexity, additions of suitable spawning gravels, restoration of habitats along sloughs and mid-channel islands, creation of areas to allow river corridors to migrate, reconnection of historical stream channel areas, management to reduce fine sediments such as sand and silt and other actions to restore healthy riparian habitats along the river channels.

Map ID	Project Description	Applicant or Administrator	Geographic Area	FY 98 Federal	Prop 204 (Category III)	CUWA	EPA Watershed	Prop 204 (CVPIA)	CVPIA	Other Funding Sources
6	Watershed management planning - Upper Sacramento River (SB 1086)	Department of Water Resources	Sacramento Mainstem		200,000					
7	Sacramento River floodplain acquisition - natural process restoration (SB 1086)	Wildlife Conservation Board, USFWS, The Nature Conservancy	Sacramento Mainstem		9,879,800					
8	Sacramento River floodplain acquisition - Active Riparian Forest Restoration (SB 1086)	Wildlife Conservation Board, USFWS, The Nature Conservancy	Sacramento Mainstem		1,292,500					2,000,000
9	Sacramento River meander belt restoration project (SB 1086)	The Nature Conservancy	Sacramento Mainstem		898,700					
16	Butte Creek acquisition and riparian restoration	CSU Chico	Sacramento Tributaries/ Butte Creek		186,128				125,000	135,000
18	Cottonwood Creek channel restoration	Graham Matthews & Associates	Sacramento Tributaries/ Cottonwood Creek		61,000					10,000
20	Lower Mill Creek riparian restoration	Mill Creek Conservancy, The Nature Conservancy	Sacramento Tributaries/Mill Creek		69,000				169,400	
24	Sedimentation movement and availability and monitoring in the Delta	USGS	Delta	1,046,200						
26	Jepson Prairie restoration of SRA and perennial grasslands	Solano County Farmlands, Open Space Foundation	Delta		244,000					
27	In-channel island restoration/demonstration project	Association of Bay Area Governments	Delta		270,270					91,000
28	Liberty Island acquisition	USFWS	Delta	8,577,000						
29	Franks Tract wetlands habitat restoration	Moffatt and Nichol Engineers, DPR, DWR	Delta		231,500					370,000

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Map ID	Project Description	Applicant or Administrator	Geographic Area	FY 98 Federal	Prop 204 (Category III)	CUWA	EPA Watershed	Prop 204 (CVPIA)	CVPIA	Other Funding Sources
30	Tyler Island levee protection and habitat restoration pilot project	Habitat Assessment & Restoration Team, Inc.	Delta		885,202					
32	Mokelumne River setback levee and habitat restoration	Reclamation District 2110	East Side Tributaries/Mokelumne River		365,000					
33	Bay Point shoreline restoration plan	East Bay Regional Park District	Suisun Marsh and Bay		185,000					53,900
34	Martinez Regional shoreline restoration	East Bay Regional Park District	Suisun Marsh and Bay		325,000					67,375
44	Stanislaus River channel restoration at the Willms Site	Department of Fish and Game, Department of Water Resources	San Joaquin Tributaries/Stanislaus River		1,037,899				1,337,899	262,200
45	Knights Ferry Gravel replenishment	Carl Mesick Consultants	San Joaquin Tributaries/Stanislaus River		536,410					90,000
46	Gravel Replacement (Basso Bridge)	Department of Fish and Game	San Joaquin Tributaries/Tuolumne River		250,975					22,100
56*	Twitchell Island restoration	Department of Water Resources	Delta		3,000,000					
65*	Basso Bridge land acquisition	Department of Fish and Game	San Joaquin Tributaries/Tuolumne River		172,500					
* **	Gravel Restoration Program	To be determined			500,000					
Total River Channel Changes				9,623,200	20,590,884	-	-	-	1,632,299	3,101,575

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Improved Instream Flows

These actions can include acquisition of drought year water supplies and provision of alternative water sources to increase flows for fish populations. Actions can include replacing lost power generation revenue to allow increased bypasses at hydroelectric facilities, funding water use efficiency measures to allow conserved water to remain instream, as well as other water management actions which can result in improved instream flows during times when there are critical needs.

Map ID	Project Description	Applicant or Administrator	Geographic Area	FY 98 Federal	Prop 204 (Category III)	CUWA	EPA Watershed	Prop 204 (CVPIA)	CVPIA	Other Funding Sources
*	Water Acquisition Program <u>1/</u>	USBR		20,000,000						
Total Improved Instream Flows				20,000,000	-	-	-	-	-	-

* This program has been approved by CALFED Policy Group and is pending approval from the Secretary of Resources and/or the Secretary of the Interior.

1/ Allocation of funds to water acquisition are subject to the Ecosystem Roundtable reaching consensus on principles acceptable to the CALFED Policy Group.

These principles should address local partnerships and empowerment, identification, avoidance, and mitigation of economic impacts, and other important policy issues.

Water Quality and Temperature Improvements

Continue action to address water quality and water temperature problems that will include identification of pollution sources, evaluation of effects, remediation, monitoring, education, facilitating safe dredge spoil disposal, and working with local groups to revise land use practices to reduce runoff.

Map ID	Project Description	Applicant or Administrator	Geographic Area	FY 98 Federal	Prop 204 (Category III)	CUWA	EPA Watershed	Prop 204 (CVPIA)	CVPIA	Other Funding Sources
5	Assessment and implementation of urban use reduction of diazinon and chlorpyrifos (Sacramento County)	Sacramento Area Stormwater Permittees	Sacramento Mainstem		663,500					193,000
22	Monitoring of Delta contaminants	San Francisco Baykeeper	Delta		100,000					20,000
23	Effects of wetlands restoration on methyl mercury levels	UC Davis	Delta		530,617					
25	Contaminant effects on smelt	UC Davis	Delta		437,000					
39	Biologically Integrated Orchard Systems (BIOS) - pesticide and fertilizer reduction	Community Alliance with Family Farmers	Sacramento and San Joaquin Mainstem		1,680,631					
40	San Joaquin River real-time water quality management program	Department of Water Resources	San Joaquin Mainstem		932,000					
49	Evaluation of alternative pesticide use reduction practices for diazinon and chlorpyrifos	UC Davis	Landscape		957,781					746,827
50	Assessment of organic matter in the habitat and its relationship to the food chain	USGS	Landscape	1,400,000						
55*	Sand and Salt Creek watershed project	Colusa County Resources Conservation District	Sacramento Tributaries/Colusa Basin	598,633						1,508,000
57*	Evaluation of selenium sources, levels and consequences in the Delta	USGS	Delta	1,588,709						1,190,655
63*	Bacterial treatment of selenium (Panoche Drainage)	UC Berkeley	San Joaquin Mainstem	1,148,326						
*	Integrated Pest Management in Suisun Bay Program	USBR		266,000						
**	Impacts of Pesticides on Aquatic Invertebrates in the Delta Program	To be determined			1,500,000					

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Map ID	Project Description	Applicant or Administrator	Geographic Area	FY 98 Federal	Prop 204 (Category III)	CUWA	EPA Watershed	Prop 204 (CVPIA)	CVPIA	Other Funding Sources
* **	Baseline Pesticide Monitoring Program	To be determined			500,000					
* **	Fathead Minnow Toxicity in the Sacramento River Program	To be determined			400,000					
* **	Algal Toxicity Program	To be determined			500,000					
* **	Water Quality Criteria for Chlorpyrifos Program	DFG			100,000					
* **	Chronic Fish Impairment Studies Program	To be determined			700,000					
Total Water Quality and Temperature Improvements				5,001,668	9,001,529	-	-	-	-	3,658,482

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Introduced and Undesireable Species Control

Actions include education to prevent new introductions and control of species already introduced.

Map ID	Project Description	Applicant or Administrator	Geographic Area	FY 98 Federal	Prop 204 (Category III)	CUWA	EPA Watershed	Prop 204 (CVPIA)	CVPIA	Other Funding Sources
35	Preventing exotic introductions from ballast-water	UC Sea Grant Extension Program	North Bay		222,830					63,885
*	Exotic Species Control Program	USFWS		1,250,000						
Total Introduced and Undesireable Species Control				1,250,000	222,830	-	-	-	-	63,885

* This program has been approved by CALFED Policy Group and is pending approval from the Secretary of Resources and/or the Secretary of the Interior.

Improved Fish Management and Hatchery Operations

Development of tools to improve hatchery operations and fisheries management to avoid impacts on wild fish and to establish or supplement populations which have been drastically reduced.

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41	Developing a genetic baseline for SJ Salmon	Department of Fish and Game	San Joaquin Mainstem		387,003					600,000
58*	Culture of Delta smelt	UC Davis	Delta		194,870					
66*	Evaluation of tagging data	Northwest Marine Technology, Inc.	Landscape	625,000						
* **	Fish Harvest Research Program	To be determined			500,000					
* **	Fish Hatchery Review Program	To be determined			250,000					
* **	Selected Species Life History Studies Research Program	To be determined			600,000					
Total Improved Fish Management and Hatchery Operations				625,000	1,931,873	-	-	-	-	600,000

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Watershed Management

Watershed management actions include planning and implementation of local efforts to improve watershed health. These efforts can include erosion control, improved fire management, modifications of land use practices, education of local landowners, and other actions to assist in the restoration of healthy ecosystems.

Map ID	Project Description	Applicant or Administrator	Geographic Area	FY 98 Federal	Prop 204 (Category III)	CUWA	EPA Watershed	Prop 204 (CVPIA)	CVPIA	Other Funding Sources
10	Watershed improvements/sediment stabilization (Deer, Mill, Antelope Creeks)	US Forest Service	Sacramento Tributaries	371,000						69,000
11	Watershed Restoration Planning (M and N Fork American River, Auburn Ravine, Coon Creek)	Placer County	Sacramento Tributaries/American River					222,530		
13	Watershed Plan Big Chico Creek	Big Chico Creek Watershed Alliance, CSU Chico	Sacramento Tributaries/Big Chico Creek				422,830			
19	Watershed Plan Deer Creek	Deer Creek Watershed Conservancy, CSU Research Foundation	Sacramento Tributaries/Deer Creek				196,554			231,000
54*	Butte Creek watershed	CSU Chico	Sacramento Tributaries/Butte Creek	294,000						
60*	Inventory of forest road systems, Cat Creek watershed	USDA Forest Service	Cosumnes River/East Side Tributaries	38,000						
69*	Napa River watershed stewardship	Napa County Resource Conservation District	North Bay				250,000			206,000
70*	Sonoma Creek watershed restoration	Southern Sonoma County Resource Conservation District	North Bay				300,000			
*	Watershed Restoration Planning and Implementation Program	USEPA		1,550,000						
Total Watershed Management				2,253,000	-	-	1,169,384	222,530	-	506,000

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	Integrated Phasing Strategy	USBR		1,647,000					
	Watershed Management Strategy	USBR		184,000					
	Permit Coordination	USBR		282,000					
*	Education	USBR		300,000					
*	CCMARP	USBR		1,157,000					
*	Technical Quality Control	USBR		850,000					
*	Contingency			3,318,990	5,000,000	1,900,000			
*	Administration			300,000	1,800,000				
	Bond Financing				500,000				
Total Monitoring and Special Support				8,038,990	7,300,000	1,900,000			

Monitoring and Special Support

E-029718

E-029718

SUMMARY PROJECT FUNDING

FY 98 Federal	Prop 204 (Category III)	CUWA	EPA Watershed	Prop 204 (CVPIA)	CVPIA	Other Funding Sources
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BUDGET CATEGORIES							
Total Fish Screen Improvements	2,539,000	7,680,850	2,172,516	-	3,648,131	3,916,000	2,493,750
Total Fish Passage Improvements	8,325,000	500,000	238,200	-	-	-	200,000
Total Habitat Restoration in Floodplains and Marshes	27,342,000	12,683,800	5,154,100	-	-	3,761,000	19,982,500
Total River Channel Changes	9,623,200	20,590,884	-	-	-	1,632,299	3,101,575
Total Improved Instream Flows	20,000,000	-	-	-	-	-	-
Total Water Quality and Temperature Improvements	5,001,668	9,001,529	-	-	-	-	3,658,482
Total Introduced and Undesireable Species Control	1,250,000	222,830	-	-	-	-	63,885
Total Improved Fish Management and Hatchery Operations	625,000	1,931,873	-	-	-	-	600,000
Total Watershed Management	2,253,000	-	-	1,169,384	222,530	-	506,000
Total Monitoring and Special Support	8,038,990	7,300,000	1,900,000	-	-	-	-
GRAND TOTAL FUNDING	84,997,858	59,911,766	9,464,816	1,169,384	3,870,661	9,309,299	30,606,192