

Contents

	Page
Chapter 1	
Introduction	1-1
Project Background	1-1
Action-Specific Implementation Plan Purpose	1-1
Tiering from CALFED Programmatic Documents.....	1-4
Coordination with Agencies	1-5
Species Analyzed in This ASIP	1-6
NCCP Communities Analyzed in This ASIP	1-7
Covered Species and NCCP Community Goals.....	1-8
Summary of Effects on Covered Species	1-9
Other Restoration Efforts in the Battle Creek Watershed	1-9
Chapter 2	
Project Description	2-1
Geographic Scope	2-1
Purpose and Need.....	2-1
Project Objectives.....	2-3
Environmental Commitments.....	2-4
Develop and Implement a Worker Environmental Education Program	2-4
Obtain and Implement the Conditions of the Environmental Permits.....	2-4
Designate Work and Exclusion Zones	2-4
Anadromous Fish Spawning Exclusion	2-6
Implement a Fish Rescue Operation	2-6
Debris Removal	2-7
Implement Environmental Timeframes	2-7
Develop an Implementation Plan.....	2-7
Detailed Description of Restoration Project Elements	2-13
Construction Schedule.....	2-16
North Battle Creek Feeder Diversion Dam	2-17
Eagle Canyon Diversion Dam.....	2-22
Wildcat Diversion Dam, Wildcat Canal, and Wildcat Pipeline Area	2-27
South Diversion Dam and South Canal Areas.....	2-32
Soap Creek Feeder	2-37
Inskip Diversion Dam/South Powerhouse	2-39
Lower Ripley Creek Feeder	2-51

Coleman Diversion Dam/Inskip Powerhouse	2-53
Asbury Pump Diversion Dam.....	2-59
Adaptive Management Plan.....	2-60
Facility Monitoring Plan.....	2-61
Water Rights	2-62
Water Acquisition Fund.....	2-62
Biological and Environmental Monitoring Fund	2-63
Adaptive Management Fund.....	2-63
Interrelated and Interdependent Actions.....	2-64
Contribution to MSCS Goals.....	2-65
Covered Species	2-65
Covered NCCP Communities	2-66

Chapter 3	Approach to Assessment of Effects and Development of Conservation Measures to Avoid, Minimize, and Compensate for Effects	3-1
	Environmental Baseline.....	3-1
	Impact Mechanisms.....	3-1
	Methods to Assess Project-Related Effects.....	3-2
	Fish	3-2
	Wildlife	3-8
	Plants and NCCP Communities.....	3-11
	Development of Conservation Measures.....	3-15
	CALFED Contribution to Species and Habitat Conservation.....	3-15

Chapter 4	Assessment of Project Effects on Covered Species and Conservation Measures	4-1
	Fish.....	4-1
	Current Status of Chinook Salmon in the Project Area.....	4-1
	Current Status of Steelhead in the Project Area	4-3
	Effects of the Restoration Project	4-4
	ASIP Conservation Measures.....	4-23
	Expected Outcomes with Implementation of Conservation Measures	4-26
	CALFED Contribution to Recovery	4-27
	Valley Elderberry Longhorn Beetle	4-27
	Current Status in the Project Area	4-27
	Methods to Assess Project-Related Effects.....	4-29
	Effects of the Restoration Project	4-30
	ASIP Conservation Measures.....	4-37
	Expected Outcomes with Implementation of Conservation Measures	4-37
	CALFED Contribution to Species Conservation	4-38
	Northwestern Pond Turtle.....	4-38
	Current Status in the Project Area	4-38
	Effects of the Restoration Project	4-38
	ASIP Conservation Measures.....	4-39
	Expected Outcomes with Implementation of Conservation Measures	4-39
	CALFED Contribution to Species Conservation	4-40
	Bald Eagle	4-40

Current Status in the Project Area	4-40
Effects of the Restoration Project	4-40
ASIP Conservation Measures.....	4-42
Expected Outcomes with Implementation of Conservation Measures	4-42
CALFED Contribution to Species Conservation	4-43
Cooper’s Hawk	4-43
Current Status in the Project Area	4-43
Effects of the Restoration Project	4-43
ASIP Conservation Measures.....	4-45
Expected Outcomes with Implementation of Conservation Measures	4-45
CALFED Contribution to Species Conservation	4-45
Osprey	4-46
Current Status in the Project Area	4-46
Effects of the Restoration Project	4-46
ASIP Conservation Measures.....	4-47
Expected Outcomes with Implementation of Conservation Measures	4-48
CALFED Contribution to Species Conservation	4-48
American Peregrine Falcon	4-48
Current Status in the Project Area	4-48
Effects of the Restoration Project	4-49
ASIP Conservation Measures.....	4-50
Expected Outcomes with Implementation of Conservation Measures	4-50
CALFED Contribution to Species Conservation	4-51
Yellow-Breasted Chat.....	4-51
Current Status in the Project Area	4-51
Effects of the Restoration Project	4-51
ASIP Conservation Measures.....	4-55
Expected Outcomes with Implementation of Conservation Measures	4-55
CALFED Contribution to Species Conservation	4-56
Little Willow Flycatcher	4-56
Current Status in the Project Area	4-56
Effects of the Restoration Project	4-56
ASIP Conservation Measures.....	4-60
Expected Outcomes with Implementation of Conservation Measures	4-61
CALFED Contribution to Species Conservation	4-61
Golden Eagle and Foothill Yellow-Legged Frog	4-61

**Chapter 5 Assessment of Project Effects on Natural Community
Conservation Plan Communities and Conservation**

Measures	5-1
Anadromous Fish Species.....	5-1
Montane Riverine Aquatic.....	5-2
Current Status in the Project Area	5-3
Effects of the Restoration Project	5-4
ASIP Conservation Measures.....	5-7

Expected Outcomes	5-7
CALFED Contribution to Species and Habitat Conservation	5-8
Nontidal Freshwater Permanent Emergent Habitat	5-8
Current Status in the Project Area	5-9
Effects of the Restoration Project	5-10
ASIP Conservation Measures.....	5-12
Expected Outcomes	5-13
CALFED Contribution to Species and Habitat Conservation	5-13
Natural Seasonal Wetland	5-14
Current Status in the Project Area	5-14
Effects of the Restoration Project	5-15
ASIP Conservation Measures.....	5-17
Expected Outcomes	5-18
CALFED Contribution to Species and Habitat Conservation	5-18
Montane Riparian	5-19
Current Status in the Project Area	5-19
Effects of the Restoration Project	5-20
ASIP Conservation Measures.....	5-24
Expected Outcomes	5-25
CALFED Contribution to Species and Habitat Conservation	5-25
Upland Scrub	5-25
Current Status in the Project Area	5-26
Effects of the Restoration Project	5-26
ASIP Conservation Measures.....	5-27
Expected Outcomes	5-28
CALFED Contribution to Species and Habitat Conservation	5-28
Grassland	5-28
Current Status in the Project Area	5-29
Effects of the Restoration Project	5-29
ASIP Conservation Measures.....	5-31
Expected Outcomes	5-31
CALFED Contribution to Species and Habitat Conservation	5-31
Valley/Foothill Woodland and Forest	5-31
Current Status in the Project Area	5-32
Effects of the Restoration Project	5-34
ASIP Conservation Measures.....	5-38
Expected Outcomes	5-38
CALFED Contribution to Species and Habitat Conservation	5-39

Chapter 6	Assessment of Cumulative Effects	6-1
	Fish	6-1
	Wildlife	6-2

Chapter 7	Adaptive Management, Changed Circumstances, and Funding.....	7-1
	Adaptive Management.....	7-1
	Changed Circumstances and Remedial Measures	7-1
	Funding.....	7-2
	Funding for Restoration Project Conservation Measures	7-2
	Cost of Implementing Conservation Measures	7-3

Chapter 8	Monitoring Plan	8-1
	Monitoring Conservation Measures during Construction.....	8-1
	Long-Term Monitoring of Conservation Measures	8-4
	Monitoring for Compensation Measure AVELB1	8-6
	Monitoring for Compensation Measures ANFPE2, ANSWE2, and AMOR12	8-7
	Monitoring for Compensation Measure AVFWF2	8-11
	Integrating Monitoring Results in the CALFED Monitoring Program	8-12
Chapter 9	Assurances Requested	9-1
	Additional Conservation Measure Requirements	9-1
	Future Federal Listing of Unlisted MSCS Evaluated Species.....	9-1
Chapter 10	Alternatives to Take Considered and Rejected	10-1
	Spring-Run Chinook Salmon	10-1
	Potential Take Associated with Accidental Spill of Petroleum Products.....	10-1
	Potential Take Associated with Increased Sedimentation of North Fork and South Fork Battle Creek.....	10-2
	Take Associated with Release of Currently Stored Fine Sediment to the Stream Channel.....	10-2
	Take Associated with Disturbing Spawning and Rearing Habitat	10-3
	Take Associated with Dewatering Portions of the Stream Channel and Temporarily Removing Fish Ladders.....	10-3
	Take Associated with Percussion-Related Energy Shock Waves, Operation of Equipment, and Becoming Trapped in Isolated Pockets of Water	10-4
	Take Associated with New Fish Ladders	10-5
	Take Associated with Fish Screens at the Remaining Diversions	10-5
	Winter-Run Chinook Salmon	10-6
	Steelhead	10-6
	Valley Elderberry Longhorn Beetle	10-6
	Take Associated with Construction of New Fish Facilities at Eagle Canyon Diversion Dam.....	10-6
	Take Associated with Dewatering of South Canal.....	10-7
Chapter 11	List of Participants	11-1
	Federal Agencies.....	11-1
	State Agencies.....	11-1
	Local Agency	11-2
	Technical Consultants	11-2
Chapter 12	References	12-1
	Printed References	12-1
	Personal Communications.....	12-7