

CALFED POTENTIAL ACTION LIST

Categories and Actions	Fisheries and Diversions	Habitat and Land Use/ Flood Protection	Water Supply Availability and Beneficial Uses	Water Quality and Land Use
Restoration of Bay-Delta System Shallow Water (Tidal) Habitat ✓-Convert existing leveed lands to tidal action <i>Partial tidal only</i> ✓-Protect existing shallow habitat from erosion ✓-Restore tidal action to existing diked wetlands <i>Partial tidal only</i> -Reconstruct levees to include shallow water habitat ✓-Fill deep water to produce shallow habitat	 X X	 X X		
Restoration of Bay-Delta System Riverine Habitat -Reconstruct river banks and shallow areas ✓-Restore and preserve channel islands -Restore natural channel configurations -Modify channel/levee construction practices to include riverine elements	 X X X	 X X X		
Restoration of Bay-Delta System Riparian Habitat ✓-Improve and protect degraded riparian habitats ✓-Establish new areas of riparian habitat ✓-Reestablish historic riparian areas -Modify levee maintenance practices ✓-Protect existing riparian habitat				
Restoration of Bay-Delta System Wetland Habitat ✓-Restore, enhance, and create wetlands -Expand wetland acquisition programs ✓-Convert agricultural lands to wetlands ✓-Protect existing wetland habitat				
Restoration of Bay-Delta System Terrestrial Habitat -Protect existing upland habitat -Establish upland habitat on levees -Establish upland habitat on fallowed croplands -Establish oak woodlands on suitable soils ✓-Encourage wildlife-friendly agricultural practices -Preserve agricultural land uses providing habitat -Clean up sites contaminated with toxic substances				
Implementation of Integrated Habitat Management Programs -Establish regional ecosystem restoration guidelines -Implement integrated regional habitat management -Develop cooperative management agreements ✓-Establish mitigation banking program				

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Categories and Actions	Fisheries and Diversions	Habitat and Land Use/ Flood Protection	Water Supply Availability and Beneficial Uses	Water Quality and Land Use
Establishment of Floodways and Meander Belts ✓-Relocate levees to widen floodways -Allow river channels to meander -Acquire Delta islands as overflow areas -Restore floodways as habitat corridors				
Control of Introduced Species -Remove or reduce nuisance species in key habitats ✓-improve regulation of ballast-water releases -Improve border inspection practices -Inspect for invasions of nuisance species -Modify habitat to favor native species				
Delta Waterfowl Habitat Management ✓-Manage agricultural crops for waterfowl forage production ✓-Improve management of public waterfowl areas ✓-Implement terrestrial predator control programs ✓-Increase sources and availability of wildlife forage				
Restoration of Upstream Anadromous Fish Habitat ✓-Manage flows and temperatures in upstream habitats ✓-Restore and replenish spawning gravels -Restore channel configurations -Restore shoreline habitat conditions -Modify gravel mining practices -Improve floodway drainage to reduce fish stranding	X		X	
Improvements for Upstream Fish Passage ✓-Modify passage at upstream dams and other barriers ✓-Modify natural barriers to improve passage				
Restoration of Upstream Riparian Habitat -Restrict livestock grazing in riparian corridors -Revegetate degraded riparian habitats -Protect riparian lands through purchase/easements ✓-Restore flows to dewatered riparian habitats				

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Categories and Actions	Fisheries and Diversions	Habitat and Land Use/ Flood Protection	Water Supply Availability and Beneficial Uses	Water Quality and Land Use
Restoration of Upstream Wetland Habitat ✓-Modify floodways to support wetland habitats ✓-Reuse agricultural drainage to create wetlands ✓-Reuse urban wastewater effluent to create wetlands ✓-Manage groundwater recharge for wetland habitat				
Delta Inflow/Outflow/Export Management Actions regarding Delta Inflow -Modify upstream consumptive use -Modify upstream reservoir operations criteria -Modify Delta inflow timing pattern ✓-Provide instream pulse flows for fish passage ✓-Provide instream flows for fish attraction	X X X		X X X	X
Actions regarding Delta Diversions and Outflows ✓-Modify volumes and timing of exports -Modify in-Delta consumptive use -Modify central Delta channel operations ✓-Modify export operations criteria ✓-Establish a Delta watermaster to Manage flows ✓-Use real-time monitoring and adaptive management				
Modification of Diversion Timing Patterns -Modify diversion timing of in-Delta diversions -Modify diversion timing of export diversions -Coordinate SWP/CVP diversion timing -Modify diversion timing through Montezuma Salinity control Gate -Use real-time monitoring and adaptive management				
Increased Rates of Diversion Capacity ✓-Obtain approvals for expanded export capacities <i>Increase diversion capacity to in-Delta storage</i> -Enlarge export pumping capacities -Increase diversion capability at Red Bluff diversion Dam				
Acquisition of Long-Term Water Supplies for Fish and Wildlife ✓-Acquire water to augment instream flows -Obtain shifts in timing of instream flows -Obtain shifts in diversion timing patterns ✓-Acquire water for refuge habitat use ✓-Modify water law to Establish instream rights	X X	X X	X X	X

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Categories and Actions	Fisheries and Diversions	Habitat and Land Use/ Flood Protection	Water Supply Availability and Beneficial Uses	Water Quality and Land Use
Installation and Improvement of Fish Screens ✓-Improve screens at Delta export pumps ✓-Improve other existing fish screen systems -Install screens on other in-Delta diversions ✓-Install screens on upstream diversions -Consolidate and screen existing small diversions -Enforce screening requirements				
Improvement of Bay-Delta System Fish Migration ✓-Install barriers to block fish movement into Old river ✓-Install barriers to keep fish in Sacramento river <i>Acoustic</i> ✓-Install barriers to divert fish from Sacramento river to western distributaries ✓-Operate fish barrier on San Joaquin river at Merced river confluence in fall ✓-Provide instream pulse flows for fish passage ✓-Provide instream flows for fish attraction	X			
Improvement of Fish Salvage Operations ✓-Improve design of salvage facilities ✓-Improve operation of salvage facilities ✓-Improve fish hauling and release procedures				<i>Install Georaxana Slough hydrolic barrier to keep fish in Sacramento River.</i> <i>Maintain low enough water temperature to safeguard smolt and fry.</i>
Removal and Control of Aquatic Predators ✓-Harvest predators at Delta export pumps ✓-Harvest predators in upstream habitats				
Fish Hatchery Operations ✓-Expand hatchery capacities ✓-Construct new hatcheries on the San Joaquin river ✓-Improve hatchery operations -Reduce hatchery effects on wild fish populations -Implement tagging of hatchery-bred fish -Establish new captive breeding programs				
Fish Harvest Management ✓-Improve regulation of commercial take ✓-Improve regulation of recreational take ✓-Improve enforcement of Harvest regulations	X			

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Categories and Actions	Fisheries and Diversions	Habitat and Land Use/ Flood Protection	Water Supply Availability and Beneficial Uses	Water Quality and Land Use
Desalination -Expand desalination of Southern California supplies -Expand desalination of San Joaquin Valley supplies ✓-Improve desalination technologies and cost ✓-Educate users about desalination feasibility				
Water Conservation -Increase use of district-wide conservation practices -Increase use of on-farm conservation practices -Increase use of municipal conservation practices -Increase use of industrial conservation practices -Implement financial incentive policies -Implement conservation-oriented rate structures -Educate users about conservation technologies				
Water Reclamation ✓-Recharge groundwater with reclaimed water ✓-Use reclaimed water for agricultural irrigation ✓-Reclaim saline agricultural drainage water ✓-Recycle and treat water for potable Reuse ✓-Use reclaimed water for nonpotable urban uses ✓-Use reclaimed water for landscape irrigation ✓-Use reclaimed water for power plant cooling ✓-Use reclaimed water for industrial processes ✓-Use reclaimed water to repel salinity intrusion -Improve reclamation technologies and cost -Educate public about water reclamation	<i>only when economically feasible</i>			
Land Retirement and Fallowing -Encourage land fallowing during drought periods -Develop incentive programs for land retirement -Purchase lands or easements ✓-Retire lands with drainage problems <i>that impact others</i>				
Water Pricing -Establish incentives for pricing to reduce demand -Educate users about pricing feasibility -Remove legal obstacles to pricing incentive programs				

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Categories and Actions	Fisheries and Diversions	Habitat and Land Use/ Flood Protection	Water Supply Availability and Beneficial Uses	Water Quality and Land Use
Watershed Management ✓-Manage vegetation cover to increase yield ✓-Manage riparian zones to protect water quality ✓-Manage land uses to reduce sedimentation ✓-Modify weather to increase precipitation	<i>only when economically feasible</i>			
New or Expanded On-stream Storage ✓-Construct new storage facilities south (downstream) of the Delta ✓-Construct new storage facilities north (upstream) of the Delta ✓-Enlarge existing on-stream storage reservoirs ✓-Modify operations of existing on-stream reservoirs			X X	X
New or Expanded Off-stream Storage ✓-Construct new storage facilities south (downstream) of the Delta ✓-Construct new storage facilities north (upstream) of the Delta ✓-Construct new storage facilities in Delta ✓-Enlarge existing off-stream storage reservoirs ✓-Modify operations of existing off-stream reservoirs			X X	X
Groundwater Banking and Conjunctive Use -Establish incentives for conjunctive use -Modify water Code to encourage conjunctive use ✓-Establish conjunctive use programs ✓-Store groundwater south (downstream) of the Delta ✓-Store groundwater north (upstream) of the Delta ✓-Implement techniques to increase groundwater recharge			X X	
Improvement of Through-Delta Conveyance -Increase capacities of existing east-side channels ✓-Increase flows from the Sacramento river to the central Delta -Modify Delta levees to increase flow cross sections -Construct pump/siphon systems between Delta channels -Expand existing intakes at the Delta export facilities -Construct expanded export intake/forebay pumping system				

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Categories and Actions	Fisheries and Diversions	Habitat and Land Use/ Flood Protection	Water Supply Availability and Beneficial Uses	Water Quality and Land Use
Construction and Improvement of Conveyance Facilities ✓-Construct east-side isolated transfer system ✓-Construct west-side isolated transfer system ✓-Construct small isolated transfer facility ✓-Convert Delta islands to storage/conveyance system ✓-Construct conveyance to off-stream storage ✓-Construct conveyance to groundwater storage	<i>only when economically feasible</i>			
Changes in Locations of Diversions -Relocate Delta export pumps from key habitats -Relocate other in-Delta diversions for more reliable supplies -Consolidate in-Delta agricultural diversions -Relocate upstream diversions from key habitats ✓-Improve diversion designs when relocating				
Water Transfers -Modify water Code to ease transfers ✓-Improve procedures for transfer permitting ✓-Coordinate diversion and conveyance of transfers				
Long-Term Planning for Drought Contingencies ✓-Increase water storage capacities at user locations -Establish incentives for long-term planning -Conduct Integrated Resources Planning -Establish incentives for long-term conservation -Develop alternate supplies for drought situations	<i>Develop means to capture and store water during high flow periods</i>			
Water Resources Data and Information Management ✓-Establish a comprehensive water data system ✓-Implement real-time data management system ✓-Integrate data for adaptive management decisions ✓-Establish accessible data management system				
Establishment of Institution for Integrated Long-Term Water Management -Establish long-term guarantees for management -Establish institution to implement guarantees -Coordinate multiagency roles in management ✓-Coordinate groundwater and surface water management -Establish incentives for cooperation/coordination -Establish a public awareness and education program				

G-005849

Categories and Actions	Fisheries and Diversions	Habitat and Land Use/ Flood Protection	Water Supply Availability and Beneficial Uses	Water Quality and Land Use
Establishment of Export Capacity Market ✓-Establish procedures for allocation of export capacity ✓-Establish institution to allocate export capacity ✓-Coordinate water transfers and export capacity ✓-Market export capacity for environmental benefits				
Integration of Land Use and Water Supply Planning -Coordinate land uses with water supplies -Encourage local determination of supplies available -Encourage local assessment of water supply reliability				
Installation and Operation of Flow Barriers ✓-Install flow barriers to manage south Delta quality -Install weirs to control salinity intrusion		<i>Install Georgiana Slough hydraulic barrier.</i>		
Management of Agricultural Drainage -Implement source control regulations for pollutants -Implement pollutant-load limits in San Joaquin river -Reduce or control volume of agricultural discharges -Modify cropping and irrigation practices -export agricultural drainage to other watersheds -Retire lands with drainage disposal problems -Improve pest-control practices -Avoid use of high-salinity irrigation water -Manage irrigation tailwater to reduce pesticides ✓-Manage drainage timing to reduce instream impacts -Treat drainage to remove salt or other pollutants -Dilute pollutants in Delta inflows from SJR using stored water				
Management of Urban/Industrial Drainage and Wastewater Discharge ✓-Retain and manage stormwater runoff -Implement urban awareness/education programs -Treat discharges to remove problem constituents ✓-Construct wetlands to treat wastewater effluent ✓-Increase key nutrient inputs to estuary -Enforce wastewater discharge requirements -Prevent toxic discharges from industrial plants				

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Categories and Actions	Fisheries and Diversions	Habitat and Land Use/ Flood Protection	Water Supply Availability and Beneficial Uses	Water Quality and Land Use
Dredged Material Management -Limit dredging to slack tides -Limit dredging to avoid fish migration periods -Use techniques to localize sediment movement -Dispose dredged materials at nonaquatic or other suitable sites -Remove contaminated sediments in critical habitat sites -Ensure material used for levee maintenance is noncontaminated				
Management of Abandoned-Mine Drainage -Manage discharges from abandoned mines -Remediate abandoned mining sites discharging pollutants				
Levee Maintenance and Stabilization <input checked="" type="checkbox"/> -Maintain and stabilize existing levees -Modify agricultural practices to reduce subsidence -Use infilling to correct past subsidence -Implement uniform maintenance standards <input checked="" type="checkbox"/> -Provide funding for maintenance and stabilization		<i>Distribute riprap to locations where it can be used in flood fights.</i>		
Improvement of Flood Protection Levels and Seismic Stabilities <input checked="" type="checkbox"/> -Reconstruct levees to higher design standards -Reconstruct levees to higher seismic standards -Relocate levees to more stable sites <input checked="" type="checkbox"/> -Widen floodways to increase flood conveyance -Establish and manage flood overflow areas				
Rerouting and Protection of Infrastructure from Flooding and Seismic Risks -Maintain/reconstruct levees around infrastructure -Reconstruct infrastructure to increase reliability -Relocate/reroute infrastructure				
Establishment of Long-Term Funding Mechanisms -Establish a disaster contingency funding program -Establish a Bay-Delta financing authority -Provide low-cost debt financing for local agencies -Establish a bond financing mechanism -Establish a statewide water utility surcharge				

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