

Reinitiation of Consultation on the Coordinated Long-term Operation of the CVP and SWP - Draft Functions Chart

Purpose	Sub-Component 1	Sub-Component 2	Sub-Component 3	Issues	Solutions
Water Supply	Deliver Water	Direct Diversions			
		Pump Water			
	Execute Exchanges				
	Execute Contracts				
	Recharge Groundwater	Reduce Groundwater Pumping			
		Build Recharge Basins			
		Prevent Subsidence			
		Implement Sustainable Groundwater Management Act			
	Increase water efficiency	Convert lawns			
		Upgrade appliances			
		Reduce leaks			
		Public education			
		Restrict water			
Fish and Wildlife	Increase Abundance	Increase spawning habitat	Cool temperatures		
			Release channel maintenance flows		
			Add gravel		
			Increase fish privacy during spawning		
			Reduce redd dewatering		
			Reduce migration barriers		
			Avoid scouring flood peaks		
			Release sufficient base flows		
		Increase rearing habitat	Warm temperatures		
			Excavate floodplains		
			Place Large Woody Debris		
			Place cobbles		
			Increase flow variability		
			Increase thermal diversity		
			Increase food web diversity		
			Reduce migration barriers		
			Avoid scouring flood peaks		
			Release sufficient base flows		
	Increase riparian habitat		Protect / Restore / Maintain native plants		
			Increase natural sediment transport		
			Increase habitat complexity		
			Encourage Sediment Redistribution		
			Increase Allocthanous Materials		
	Increase survival		Improve Resiliency		
			Increase Native Plants and Animals		
	Maintain corridors / passage		Improve survival downstream		
			Pass fish		
	Reduce non-native predation		Remove Barriers		
			Provide natural flows		
			Remove Predators		
			Increase cover / shelter		
			Cool Water		
		Increase food	Increase primary productivity		
			Increase invertebrates		
			Reduce invasives		
			Increase interstitial space		
			Maximize Reservoir Level (increase coldwater pool)		

Purpose	Sub-Component 1	Sub-Component 2	Sub-Component 3	Issues	Solutions		
Fish and Wildlife	Increase Abundance	Optimize temperature	improve release Outlet flexibility (for drawing goldwater pool)	Increase Precipitation			
			increase shade			Increase flow variability	
			increase / decrease velocity				
			increase volume of water to decrease temps				
			Separate habitats				Increase rearing habitat complexity and quality
			Reduce hybridization				
			increase Area of No fishing				
			Reduce Poaching by increasing enforcement				
			Change Regulations				
			Limit harvest				
Manage Total Dissolved Gases							
Manage Dissolved Oxygen							
Reduce Pesticides							
Fish and Wildlife	Improve Water Quality	Protect / Restore / Maintain Downstream Abiotic Functions	Reduce point pollutants	Increase primary productivity			
			Reduce non-point pollutants				
			Reduce Turbidity for Juveniles				
			Decrease Turbidity				
			Flow, sediment, Temperature				
			Coordinate system operations (Sacramento backwater, etc)				
			Optimize temperature				
			Maintain or increase Food Web			Increase rearing habitat quantity	
			Reduce invasives				
			increase interstitial space				
Warm temperatures							
Excavate floodplains							
Place Large Woody Debris							
Place cobbles							
increase flow variability							
increase thermal diversity							
Fish and Wildlife	Increase Productivity	Increase rearing habitat quantity	avoid scouring flood peaks	Increase rearing habitat complexity and quality			
			Release sufficient base flows				
			increase floodplain habitat				
			increase side channels				
			Add cobbles				
			Release channel forming flows				
			Release gravel moving flows				
			Place Large Woody Debris				
			increase food web diversity				
			increase thermal diversity				
Fish and Wildlife	Increase Productivity	Reduce non-native predation	Reduce migration barriers	Decrease hatchery influence			
			Reduce invasive plants				
			Isolate genetics to separate runs				
			Reduce Straying				
			Implement Hatchery Genetics Management Plan				
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	Increase Diversity	Increase number of habitat types	Inject gravel / Large Woody Debris		
			Increase flow variability		
			Increase food web diversity		
			Increase thermal diversity		
		Increase times habitat is available			
		Increase diversity of fish timing	Manage temps for diverse outmigration timing		
	Flood Management	Reintroduce native fish	Increase spawning window		
		Manage upstream reservoirs			
		Increase or decrease releases to avoid flood encroachment			
		Follow ICM			
		Improve structure			
	Flood Management	Maintain Levees			
		Expand Floodplains			
		Incorporate Forecasts			

Power	Create Revenue				
	Increase MegaWatt-Hours				
	Increase scheduling reliability	Maintain scheduling commitments			
		Avoid unscheduled outages			
		Minimize power bypass			
		Coordinate maintenance timing			
Recreation	Spin Turbines				
	Educate Public				
	Improve Aquatic Recreation	Remove aquatic weeds			
		Control algae			
		Maintain boat access			
		Improve swimming opportunities			
	Improve Terrestrial Recreation	Improve fishing access			
		Maintain trails			
		Increase fire safety			
		Increase river fluctuation safety			
		Maintain camping			

