

Delta Risk Management Strategy, Phase 2  
Building Blocks and Scenarios Matrix

Type	No.	Building Blocks	Option	Incorporate in Phase 2 Analysis	Scenarios			
					Improved Levees	Armored Pathway	Isolated Conveyance	
1 - Conveyance/Flood Risk Reduction	1.1	Improved Delta/Suisun Marsh Levee Maintenance	a.	Delta Levee Subventions/SM maintenance increased to 2 x current level (~\$12 million/year)	Y	●	●	●
			b.	Delta Levee Subventions/SM maintenance increased to 4 x current level (~\$25 million/year)	Y			
	1.2	Upgraded Delta Levees	a.	All Central Delta Levees (~500 miles) upgraded to HMP	Y		●	●
			b.	All Central Delta Levees (~500 miles) upgraded to PL84-99	Y	●		
			c.	All Central Delta Levees (~500 miles) upgraded to Urban Project Levees	Y			
			d.	Selected Delta islands (say Sherman, Twitchell, Brannan, Bradford, Webb, Jersey, and Bethel) have their Delta levees upgraded/replaced with seismically resistant levees (say 300-year earthquake)	Y			
	1.3	Enhanced Emergency Preparedness/Response	a.	Spend ~\$50 million for pre-positioning rock, sheetpiles, etc...	Y	●	●	●
			b.	Spend ~\$100 million for pre-positioning rock, sheetpiles, etc...	Y			
	1.4	Pre-flooding of Selected Western Islands	a.	Sherman, Twitchell, Brannan, Bradford, Webb, and Jersey	Y			
	1.5	Land Use Changes to Reduce Island Subsidence	a.	Change land use from farming to wetlands/carbon seq. (rice growing, fish food farm, etc.) for all islands projected to have more than 3 feet of additional subsidence by 2100	Y	●	●	●
			a.	Upgraded levees along "Pathway" (say to at least Urban Project levees)	Y		●	
			b.	Channel operable barriers (say Obermeyer Gates)	Y		●	
			c.	Channel dredging	Y		●	
	1.7	Isolated Conveyance Alternatives	a.	Dual isolated conveyance (say 5,000 cfs capacity)	Y			
			b.	Intermediate isolated conveyance (say 10,000 cfs capacity)	Y			
			c.	Full isolated conveyance(16,000 cfs? capacity)	Y			●
	1.8	Alternative Conveyance	a.	Dual isolated conveyance (say 5,000 cfs capacity)	Y			
			b.	Intermediate isolated conveyance (say 10,000 cfs capacity)	Y			
c.			Full isolated conveyance(16,000 cfs? capacity)	Y				
2 - Infrastructure Risk Reduction	2.1	Raise State Highways and Place on Piers (similar to I-80 across Yolo Bypass)	a.	Highway 4	Y			●
			b.	Highway 12	Y	●	●	●
			c.	Highway 160	Y	●	●	●
	2.2	Construct Armored Infrastructure Corridor Across Central Delta	a.	Mokelumne Aqueduct	Y	●	●	
			b.	Burlington-Northern Santa Fe Rail Line	Y	●	●	
			c.	Highway 4	Y	●	●	
		d.	Natural Gas Pipelines	Y	●	●		
		e.	Protect selected water/waste water treatment plants	Y				
3 - Environmental Risk Mitigation	3.1	Breach dikes in Suisun Marsh	a.	Breach dikes in Suisun Marsh	Y	●	●	●
	3.2	Cache Slough Restoration	a.	Cache Slough Restoration	Y	●	●	●
	3.3	Fish Screens	a.	Delta Cross Channel	Y	●	●	
			b.	Clifton Court Intake	Y	●	●	
			c.	Tracy Pumping Plant	Y	●	●	
			d.	River diversions	Y	●	●	●
	3.4	Set back levees to Restore Shaded Riverine Habitat	a.	10 miles	Y	●	●	●
			b.	20 miles	Y			
			c.	50 miles	Y			
	3.5	Reduce water export from the Delta	a.	10 percent	Y			
b.			25 percent	Y				
c.			40 percent	Y				

Note: ● block belongs to that scenario