

San Joaquin River Basin-Wide Feasibility Study: Draft System Configuration Performance Summary (DRAFT- SUBJECT TO REVISION)

Goal	Foundational Goals	Objective Theme	Metric/Benefit Category	Metric	Baseline	SJ-A 2012 CVFPP SSIA	SJ-B Raising Urban Levees for Resiliency	SJ-C Flood Storage/ Reoperation	SJ-D Large Scale Enhance- ment	Recommended Plan
Improve Flood Risk Management	Public Safety	Improve Flood System Resiliency (Long-Term with Climate Change)	Urban areas with 200-year LOP	Number of urban impact areas that pass a flood event with climate change with a 2% or less probability of levee failure and have sufficient freeboard along the entire impact area	0 of 9	0 of 9	7 of 9	7 of 9	7 of 9	7 of 9
			Small communities with 100-year LOP	Number of small community impact areas that pass a 100-year flood event with climate change with a 2% or less probability of levee failure and have sufficient freeboard along the entire impact area	0 of 2	1 of 2	1 of 2	1 of 2	1 of 2	1 of 2
			Reduce stages in urban areas	Average Urban Stage Change (feet)	–	-0.27	+1.25	-2.13	-2.10	-2.04
			Reduce stages in small communities	Average Small Community Stage Change (feet)	–	+0.52	+0.52	+0.32	+0.12	+1.36
			Reduce stages in rural-agricultural areas	Average Rural-Agricultural Stage Change (feet)	-	-0.12	-0.11	-0.64	-0.87	-0.32
			Flood damage reduction	Event-Specific Flood Damages for 200-year event with Climate Change (\$ billion)	\$9.2	\$6.37	\$1.36	\$1.20	\$1.27	\$1.27
			Life loss reduction	Event-Specific Life Loss for 200-year event with climate change (estimated mortalities)	4,752	1,297	306	249	272	268
Promote Ecosystem Functions	Ecosystem Vitality	Processes	Inundated floodplain	Inundated Floodplain – total amount of land and EAH for 2-Year EAH (acres)	0	578	578	773	>816	773
			Riverine geomorphic processes	River Meander Potential – total amount (acres)	0	1,190	1,190	1,947	>2,466	2,466
		Habitat	SRA cover	Riparian-Lined Bank – total length (miles)	0	1.6	1.6	2.4	>4.4	4.4
			Riparian & Marsh	Habitat Amount – total amount in floodways (acres)	0	2,566	2,566	2,795	>27,355	2,853
		Stressors	Fish passage barriers	Fish Passage Barriers –number of high-priority barriers remediated	0	0	0	0	0	0
			Invasive plants	Invasive Plant-Dominated Vegetation in Channel Maintenance Areas – total area (acres)	0	9	9	67	>93	67
Promote Multi-Benefit Projects	Economic Stability	Integrated Water Management	Water supply	Surface Water Benefit (TAF/year)	-	0	0	8	>1	1
				Groundwater Benefit (TAF/year)	-	0-0.8	0-0.8	0-0.8	>0-30	0-30
			Water quality	Improvement in Water Quality	-	Low	Low	Low	Low	Low
			Navigation	Navigation Benefit	-	Low	Low	Low	Low	Low
			Commercial fishery	Population Benefit	-	N/A	N/A	N/A	N/A	N/A
			Hydropower	Hydropower Benefit	--	None	None	None	None	None
		Ag. Stewardship	Agricultural impact	Ag. land conversion (percentage of total ag land in planning area)		0.7%	0.7%	0.7%	8.5%	0.7%
	Enriching Experiences	Integrate Water Management	Recreation	Potential Visitor use Days per Year	-	15,391	95,300-169,550	95,300-169,550	N/A	>95,300-169,550
			Open space	Residential Parcels within 0.5 mile of Configuration Boundary	-	1,759	5,619	5,619	N/A	>5,619
Cost Efficiency	Annual O&M and repair costs			\$ million	\$28	\$28	\$28	\$28	\$28	\$28
	Total Capital Costs			\$ billion	-	\$0.9	\$1.1	\$1.4 ~ \$2.1	>\$8.4	\$1.8
	Annualized Capital Cost (Interest Rate = 6%, 50 year planning period)			\$ million	-	\$58	\$70	\$88 ~ \$134	>\$535	\$115

N/A = Not available

TBD = To be determined