Draft San Joaquin River Basin-wide Feasibility Study: Element Performance Summary (DRAFT- SUBJECT TO REVISION)

Elements		H&H Performamce				Public Safety	Economic Stability	Ecosystem Vitality	Enriched Experience	Costs
		Systemwide			Local					
		Lower SJ Vernalis	Mid SJ Newman	Upper SJ Sand Slough	Varied					($ Million)
System Elements										
	Paradise Cut (Option A, Base Case)	N/C	N/C	N/C	Low	✓	✓	✓✓✓	✓✓	$99
	Paradise Cut (Option M, Ag-Focus)	Medium	N/C	N/C	High	✓✓	✓	✓✓✓	✓✓	$326
	Paradise Cut (Option M, Riparian-Focus)	Medium	N/C	N/C	High	✓✓	✓	✓✓✓	✓✓	$340
	5,000-cfs Newman Diversion to O'Neil Forebay	Low	Medium	N/C	Medium	✓	✓			$2,600
	1,000-cfs Mendota Pool Diversion	N/C	N/C	Low	Medium	✓✓	✓			$1,512
Reservoir Management										
	Joint FCO for Vernalis 46,000-cfs Objective	Low/Low	Low/Low	Low/Low	Med/Med	✓	✓			N/A
Calaveras River Watershed										
	Additional Flood Storage: 42 TAF	N/C	N/C	N/C	High	✓✓✓	✓✓✓			$42
Tuolumne River Watershed										
	Objective Release: 9K to 15K cfs	Low	N/C	N/C	High	✓✓	✓✓	✓		$264
	Objective Release: 9K to 20K cfs	Low	N/C	N/C	High	✓✓	✓✓	✓		$264
	Objective Release: 9K to 25K cfs	Low	N/C	N/C	High	✓✓	✓✓	✓		$264
	Pre-release: 50 TAF	Low	N/C	N/C	High	✓✓	✓✓			N/A
	Pre-release: 100 TAF	Low	N/C	N/C	High	✓✓	✓✓			N/A
	Additional Flood Storage: 50 TAF	Low	N/C	N/C	High	✓✓	✓✓			$39
	Additional Flood Storage: 100 TAF	Low	N/C	N/C	High	✓✓	✓✓			$77
	Additional Flood Storage: 200 TAF	Medium	N/C	N/C	High	✓✓	✓✓			$155
Merced River Watershed										
	Objective Release: 6K to 10K cfs	Low	Low	N/C	High/High					N/A
	Objective Release: 6K to 15K cfs	Low	Low	N/C	High/High					N/A
	Objective Release: 6K to 20K cfs	Low	Medium	N/C	High/Med.					N/A
	Pre-release: 25 TAF	N/C	N/C	N/C	Low	✓	✓			N/A
	Pre-release: 50 TAF	N/C	N/C	N/C	Low	✓	✓			N/A
	Additional Flood Storage: 25 TAF	N/C	N/C	N/C	Low	✓	✓			$21
	Additional Flood Storage: 50 TAF	N/C	N/C	N/C	Low	✓	✓			$42
	Additional Flood Storage: 100 TAF	N/C	N/C	N/C	Low	✓	✓			$84
	Additional Flood Storage: 200 TAF	N/C	N/C	N/C	Medium	✓	✓			$169
	Montgomery Reservoir 150 TAF	N/C	N/C	N/C	Medium	✓	✓			$530
	Enlarged Bear and Burns Reservoir: +85 TAF	N/C	N/C	N/C	N/C					N/A
	Black Rascal Creek Detention Basin: 1~3 TAF									N/A
Upper San Joaquin River Watershed										
	Objective Release: 8K to 10K cfs	N/C	N/C	N/C	N/C	✓	✓			N/A
	Objective Release: 8K to 15K cfs	N/C	N/C	N/C	Low	✓	✓			N/A
	Pre-release: 25 TAF	N/C	N/C	Low	Medium	✓	✓			N/A
	Pre-release: 50 TAF	N/C	N/C	Low	High	✓	✓			N/A
	Additional Flood Storage: 25 TAF	N/C	N/C	Low	Medium	✓	✓			N/A
	Additional Flood Storage: 50 TAF	N/C	N/C	Low	High	✓	✓			N/A
	Additional Flood Storage: 100 TAF	Low	Low	Low	High	✓	✓			N/A
Regional Elements										
Lower SJ	Stockton Levee Improvement (ULDC + SLR + CC)	N/C	N/C	N/C	High	✓✓✓	✓✓✓			$466
	Stockton Levee Improvement (ULDC + SLR + CC + upstream flood storage)	N/C	N/C	N/C	High	✓✓✓	✓✓✓			$341
	Mormon Channel Bypass	N/C	N/C	N/C	Medium	✓✓	✓✓		✓✓✓	$46
	DWR-proposed RD 17 Levee Improvements	N/C	N/C	N/C	N/C	✓✓✓	✓✓✓			$423
	RD 17 Levee-fix-in-place (200-year+SLR+CC)	N/C	N/C	N/C	Low		✓✓			$416
	RD 17 Multi-benefit Improvements	N/C	N/C	N/C	Low	✓✓✓	✓✓✓	✓✓✓	✓✓✓	$459
	RM 52 Setback Levee	N/C	N/C	N/C	N/C			✓✓	✓	$12
	RM 60-65 Setback Levee (Ag-focus)	N/C	N/C	N/C	Low		✓	✓✓✓	✓	$38
	RM 60-65 Setback Levee (Riparian-focus)	N/C	N/C	N/C	Low		✓	✓✓✓	✓	$55
Mid SJ	Dos Rios Transitory Storage	N/C	N/C	N/C	N/C		✓	✓✓✓	✓✓✓	$19
	Three Amigos Transitory Storage	N/C	N/C	N/C	N/C		✓	✓✓✓	✓✓✓	$3
	RD 2063 Transitory Storage	Low	N/C	N/C	Low		✓	✓?		$270
Upper SJ	Firebaugh Small Community Improvements	N/C	N/C	N/C	Low	✓✓	✓	✓✓✓	✓✓	???
	Mariposa Transitory Storage	Low	Low	N/C	Medium			✓?	✓	$390
	Stevinson Transitory Storage	N/C	N/C	N/C	N/C	✓	✓	✓?		$360
	Eastside Bypass Transitory Storage	N/C	Medium	Medium	Medium		✓	✓?		$578
	Owens Creek Transitory Storage	Low	Low	N/C	Med/Med		✓	✓?		$126
	DWR Red Top Transitory Storage	N/C	N/C	N/C	Medium		✓✓	✓?		$102
	Chowchilla Bypass Transitory Storage	N/C	Low	Low	Med/Med		✓	✓?		$586
	Bear Creek Diversion Structure Expansion	N/C	N/C	N/C	N/C	✓	✓			N/A
	Western Madera County Subsidence Solution						✓✓			$10
	Madera Ranch (Madera Irrigation District Water Supply Enhancement Project)						✓✓			N/A
	Merced Levee and Storage Improvements					✓✓	✓✓			N/A
	Eastside Bypass Subsidence Improvements (in coordination with SJRRP)									
	Levee raise					✓	✓			$100
	Flowage easements					✓	✓			$170
	Annual sediment removal					✓	✓			$0.6/Year

H&H Performance Keys:

N/C	Negligible change
Low	Peak stage reduction: 0.1 to 0.5 feet; or peak flow rate reduction: 5 to 15 percent
Medium	Peak stage reduction: 0.5 to 1.0 feet; or peak flow rate reduction: 15 to 25 percent
High	Peak stage reduction: >1.0 foot; or peak flow rate reduction: >25 percent
Low	Peak stage increase: 0.1 to 0.5 feet; or peak flow rate increase: 5 to 15 percent
Medium	Peak stage increase: 0.5 to 1.0 feet; or peak flow rate increase: 15 to 25 percent
High	Peak stage increase: >1.0 foot; or peak flow rate increase: >25 percent

Public safety/Eco. Stability/Ecosystem Vitality/Enriched Exp.

✓	Low performance
✓✓	Medium performance
✓✓✓	High performance

To be included in the Recommended Plan

Further study