

NoName Group Draft Toolbox Measures

Tool	Not inconsistent w/ CALFED	Stakeholder support	Assurances Potential	Availability of funding	Cost	Implement ability	Time Frame	Mitigation potential
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Reop'ed, shifted, conj. use, existing storage

Kern Waterbank:								
Reschedule SWP deliveries	+				\$25-50/AF	+	0-2 yrs	+
Pre-deliver to groundwater	+				\$110-175/AF	+	0-2 yrs	+
MWD demand shift	+				\$25/AF for same yr, \$50-75/AF for multi yr.		0-2 yrs.	+
CCSF / SCVWD Exchanges	+				\$10M for 60cfs interconnection		3 yrs.	+
Mendota Pool pumping shifts	+				"low" (ref: CVPIA toolbox group)		0-2 yrs.	could enhance SJR flow
Los Vaqueros	+				\$20-40/AF pump.	o	0-2 yrs.	o
American Riv. Exchanges					\$138/AF for EBMUD water + wheeling	o (over and above FSC connectn, no sig. hurdles if supported by enviros.)	5 yrs.	+
Amer. Riv. / Mok. Riv.	+							
Amer. Riv. to SSJID/OID	+				\$138/AF for EBMUD water + whling + \$83-105M for pipe	- (strong local opposition)	5/6+	?
Folsom So. Canal GW/East SJ exchange	+				\$103M cap. + convey?	?	5/6+	?
Alameda Co. GW banking / conj. use	(no new potential for developing ground water programs)							
San Luis Reservoir (re-operation)	(probably incorporated within the other reop, shift, actions)							

Tool	Not inconsistent w/ CALFED	Stakeholder support	Assurances Potential	Availability of funding	Cost	Implement ability	Time Frame	Mitigation potential
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New Groundwater Storage

Madera Ranch	+	+	o	o	\$60M: cap., \$60M: land, \$30/AF pump	+	1-3 yrs	+
Gravelly Ford Project (?)	+				?		1-3 yrs	+
Semitropic expansion	+				\$200-\$300/AF		0-2 yrs.	+
Contra Costa GW banking/conj. use	+				?		>4 yrs	+

New Surface Storage

In-Delta Storage (e.g., Delta Wetlands)	+,o						2-4 yrs.	o
Raise Shasta Dam	+,o						>7 yrs	o
Raise Friant Dam	+,o				\$4.8B 14.3 MAF, \$2.7B 6.7 MAF, \$?B 1.2 MAF		>7 yrs	o
Expansion of Pacheco Res.	+,o						>7 yrs	o
Pine Flat companion reservoir	+,o						>7 yrs	o

Removal of reservoirs/dams

Battle Creek	+				\$ 12 M (book value only, no deconstruction)		Depends on negot. w/ stkhldrs	+
Englebright	+				\$ 14.7 M (book value only, no deconstruction)		Depends on negot. w/ stkhldrs	+

Tool	Ecosystem Benefits	Water Supply Potential/Benefits (yield/cap/shifted)	Water Quality Benefits
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Reop'ed, shifted, conj. use, existing storage

Kern Waterbank:			
Reschedule SWP deliveries	+(alter export timing)	50-100 TAF/yr shift (AN, Wet)	o, depends on ops, extraction wq?
Pre-deliver to groundwater	+(alter export timing)	?	o, depends on ops, extraction wq?
MWD demand shift	+(alter export timing)	50-100 TAF shift	o, depends on ops
CCSF / SCVWD Exchanges	? (higher SJR flow)	0-30 TAF shift (SCVWD to check)	o, could enhance SJR flows
Mendota Pool pumping shifts	+(alter export timing)	20-45 TAF shift	o, depends on ops, extraction wq?
Los Vaqueros	+(alter export timing)	5-10 TAF/yr	o, depends on diversion timing
American Riv. Exchanges	+ , could enhance Mokelumne flows for fish	o, neutral	+ , o may provide better quality in S. and Central Delta if Mokelumne flows are increased
Amer. Riv. / Mok. Riv.			
Amer. Riv. to SSJID/OID	+ , could enhance Stanislaus flows for fish	+ , ? , could help supply upstream of Vernalis if Vernalis WQ objective is met w/ less flow	+ , may provide better quality in S. Delta if Stanislaus flows are increased
Folsom So. Canal GW/East SJ exchange	?	?	?
Alameda Co. GW banking / conj. use			
San Luis Reservoir (re-operation)			

Tool	Ecosystem Benefits	Water Supply Potential/Benefits (yield/cap/shifted)	Water Quality Benefits
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New Groundwater Storage

Madera Ranch	+(alter export timing)	350 TAF available storage cap.	o, depends on ops, extraction wq?
Gravelly Ford Project (?)	+(alter export timing)	?	o, depends on ops, extraction wq?
Semitropic expansion	+(alter export timing)	0-200 TAF of avail. storage	o, depends on ops, extraction wq?
Contra Costa GW banking/conj. use	+(alter export timing)	TBD	o, depends on ops, extraction wq?

New Surface Storage

In-Delta Storage (e.g., Delta Wetlands)	o, depends on diversion rules and if water is piped directly to CCFB	200-250 TAF cap., yield: 100 TAF long-term, 0-50 TAF in crit.year, depends on ops.	o, could increase dissolved organics in water stored on peat islands
Raise Shasta Dam	+,o depends on ops	>0, but unknown, depends on ops.	+, temp control, enhance Sac flow
Raise Friant Dam	+,o depends on ops	>0, but unknown, depends on ops.	+, could improve SJR quality
Expansion of Pacheco Res.	+,o depends on ops	>0, but unknown, depends on ops., could help all San Luis Res. users	+, could improve SCVWD quality
Pine Flat companion reservoir	+,o depends on ops	>0, but unknown, depends on ops.	+, could improve SJR quality

Removal of reservoirs/dams

Battle Creek	miles of habitat	x miles of habitat, dams not currently used for flood control or supply (?)	
Englebright	miles of habitat	y miles of habitat, dams not currently used for flood control or supply (?)	

Tool	Ecosystem Impacts	Water Supply Impacts	Water Quality Impacts	Unresolved issues
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Reop'ed, shifted, conj. use, existing storage

Kern Waterbank:				
Reschedule SWP deliveries	+	+	o, extracted wq?	real water may be small
Pre-deliver to groundwater	+	+	o, extracted wq?	real water may be small
MWD demand shift				
CCSF / SCVWD Exchanges	+	+	o, extracted wq?	
Mendota Pool pumping shifts				
Los Vaqueros	+	+	o, extracted wq?	overdraft problem?
American Riv. Exchanges				CCWD assurances
enviro support must be evaluated, water supply impacts/benefits must be evaluated				
Amer. Riv. / Mok. Riv.	+	?	+	
local support must be evaluated, water supply impacts/benefits must be evaluated				
Amer. Riv. to SSJID/OID	+	?	+	
Folsom So. Canal GW/East SJ exchange				
Alameda Co. GW banking / conj. use				
San Luis Reservoir (re-operation)				

Tool	Ecosystem Impacts	Water Supply Impacts	Water Quality Impacts	Unresolved issues
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New Groundwater Storage

Madera Ranch	+	+	o,extracted wq?	404 issues?
Gravelly Ford Project (?)	+	+	o,extracted wq?	
Semitropic expansion	+	+	o,extracted wq?	Available storage cap.?
Contra Costa GW banking/conj. use	+	+	o,extracted wq?	storage/recharge rates?

New Surface Storage

In-Delta Storage (e.g., Delta Wetlands)	o, entrainment effects of in-Delta diversion	+	o, could incr dissolved organics in water on islnds	ops rules, direct connection to export pumps? yield?
Raise Shasta Dam	+ (better temp control, enhance Sac. Riv flow)	+	+	
Raise Friant Dam	?	+	+	
Expansion of Pacheco Res.		+	+	
Pine Flat companion reservoir		+	+	

Removal of reservoirs/dams

Battle Creek	+	probably small or zero	+	negotiations w/ locals
Englebright	+	probably small or zero	+	negotiations w/ locals