

CALFED Bay-Delta Program

Surface Water Storage Components Screening Process Meeting

July 23, 1998

AGENDA

- Summary of previous meetings (Sergio Guillen)
 - Objectives of the screening process
 - Screening criteria
 - Review of pre-feasibility reports
 - Red flagging

- Work performed by other agencies
 - Off-stream, north-of-the-Delta reservoir sites studies, Proposition 204 (DWR staff)
 - Shasta Lake enlargement
 - Screening for environmental impacts (C. Yale)

- Work performed by CALFED Bay-Delta Program
 - Incorporation of comments
 - Construction estimates for remaining alternatives
 - Capital cost calculations (P. Massera)
 - Calculation of yields (G. Bardini)
 - Economic practicability (R. Hoagland)

- Documentation

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1. Minimum Capacity

- Hulen Reservoir
- Rosewood Reservoir
- Gallatin Reservoir
- Allen Camp Reservoir
- Bella Vista Reservoir
- Deer Creek Meadows Reservoir
- Farmington Reservoir Enlargement
- Millville Reservoir
- Clay Station Reservoir
- Pardee Reservoir Enlargement
- South Gulch Reservoir
- Romero Reservoir
- Duck Creek Reservoir

2. Excessive Storage Size

- Lake Berryessa enlargement (13.3 MAF)
- Shasta Lake enlargement (14.3 MAF)

3. Conflicts with CALFED's Solution Principles and Restoration Programs

- Cottonwood Creek Reservoir Complex
- Hulen Reservoir
- Bella Vista Reservoir
- Deer Creek Meadows Reservoir
- Marysville Reservoir
- Millville Reservoir
- Tuscan Buttes Reservoir
- Wing Reservoir
- Clair Engle Lake Enlargement

4. Engineering Constraints and Excessive Cost

Engineering constraints and excessive cost are the primary bases for the elimination of alternative storage components. Screening under this criterion is based on the excessive average cost per acre-foot of water delivered to the users compared to other local alternatives and the cost of not having additional water supplies.

**Table 1
Surface Water Storage Components**

Component	Location	Type	Description	Gross Storage Capacity
West Side Sacramento Valley				
Clair Engle Lake Enlargement	Trinity County Trinity River	Enlarged Existing On-Stream Storage	Develop in conjunction with pump/conveyance facility; transports Shasta storage to Clair Engle.	Additional 4,800 TAF
Colusa Reservoir Complex	Colusa/Glenn Counties Funks Creek	Off-Stream Storage	Storage for new westside canal and Sacramento River flows.	3,300 TAF
Cottonwood Creek Reservoir Complex	Tehama/Shasta Counties Cottonwood Creek	Combined On-stream and Off-Stream Storage	Storage for new westside canal and Sacramento River flows. Includes Dutch Gulch and Tehama Reservoirs.	1,600 TAF
Fiddlers Reservoir	Tehama/Shasta Counties M.F. Cottonwood Creek	On-Stream Storage	Storage for new westside canal and Sacramento River flows.	310 to 545 TAF
Gallatin Reservoir	Tehama County Elder Creek	On-Stream Storage	Increase regulating capabilities and yield opportunities.	183 TAF
Glenn Reservoir	Glenn/Tehama Counties Stony Creek	Off-Stream Storage	Storage for Tehama-Colusa Canal or new westside canal.	8,206 TAF
Hulen Reservoir	Shasta County N.F. Cottonwood Creek	On-Stream Storage	Increase regulating capabilities and yield opportunities.	96 to 244 TAF
Lake Berryessa Enlargement	Napa County Putah Creek	Off-Stream Storage	Storage for North Bay Aqueduct and/or new westside canal.	Up to Additional 11,400 TAF
Red Bank Project (Dippingvat-Schoenfi)	Tehama County S.F. Cottonwood Creek	Off-Stream Storage - Schoenfield Reservoir; On-Stream Storage - Dippingvat Reservoir	Provide flood control and water supply opportunities.	Dippingvat-104 TAF Schoenfield-250 TAF
Rosewood Reservoir	Shasta/Tehama Counties Salt Creek and Dry Creek	On-Stream Storage	Increase regulating capabilities and yield opportunities.	155 TAF
Shasta Lake Enlargement	Shasta County Sacramento River	On-Stream Storage	Increase regulating capabilities and yield opportunities.	Additional 9,750 TAF
Sites Reservoir	Colusa and Glenn Counties Funks & Stone Corral Cks	Off-Stream Storage	Storage for Tehama-Colusa Canal or new westside canal.	1,200 to 1,900
Thomes-Newville Reservoir	Glenn County Thomes & Stoney Creek	Off-Stream Storage	Storage for Tehama-Colusa Canal or new westside canal.	1,840 - 3,080 TAF

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Component	Location	Type	Description	Gross Storage Capacity
East Side Sacramento Valley				
Allen Camp Reservoir	Modoc County Pit River	On-Stream Storage	Increase regulating capabilities and yield opportunities.	196 TAF
Auburn Reservoir	Placer County N.F. American River	On-Stream Storage	Increase regulating capabilities and yield opportunities.	315 to 2,300 TAF
Bella Vista Reservoir	Shasta County Little Cow Creek	On-Stream Storage	Increase regulating capabilities and yield opportunities in the northern Sacramento Valley.	146 TAF
Coloma Reservoir	El Dorado County S.F. American River	On-Stream Storage	Increase regulating capabilities and yield opportunities.	710 TAF
Deer Creek Meadows Reservoir	Tehama County Deer Creek	On-Stream Storage	Increase regulating capabilities and yield opportunities.	200 TAF
Folsom Reservoir Enlargement	El Dorado, Placer, and Sacramento Counties American River	Enlarged Existing On- Stream Storage	Increase regulating capabilities and yield opportunities.	Additional 365 TAF
Freemans Crossing Reservoir	Yuba/Nevada Counties Middle Yuba River	On-Stream Storage	Increase regulating capabilities and yield opportunities.	300 TAF
Garden Bar Reservoir	Sutter County Bear River	On-Stream Storage	Provide water supply opportunities in conjunction with Camp Far West and Oroville Reservoirs.	245 TAF
Kosk Reservoir	Shasta County Pit River	On-Stream Storage	Increase regulating capabilities and yield opportunities.	800 TAF
Marysville Reservoir	Yuba County Yuba River	On-Stream Storage	Increase regulating capabilities and yield opportunities from the Yuba River.	916 TAF
Millville Reservoir	Shasta County South Cow Creek	On-Stream Storage	Increase regulating capabilities and yield opportunities.	206 TAF
Squaw Valley Reservoir	Shasta County Squaw Valley Creek	Combined Off-Stream and On-Stream Storage	Storage for Sacramento River flows.	400 TAF
Tuscan Buttes Reservoir	Tehama County Paynes & Inks Creeks	Off-Stream Storage	Surplus flows from the Sacramento River would be diverted into a forebay-afterbay adjacent to the river from which water would be pumped into Tuscan Reservoir.	3,675 to 5,500 TAF
Waldo Reservoir	Yuba County Dry Creek	Off-Stream Storage	Storage for Yuba River flows.	60 to 300 TAF
Wing Reservoir	Shasta County Inks Creek	On-Stream Storage	Increase regulating capabilities and yield opportunities.	244 TAF

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Component	Location	Type	Description	Gross Storage Capacity
In-Delta				
Chain of Lakes Facility	Sacramento/San Joaquin Delta	Island Storage in Delta	A chain of contiguous island storage facilities from the north Delta to the export Facilities.	300 to 600 TAF
In-Delta Storage	Sacramento/San Joaquin Delta	Island Storage in Southern Delta	Island storage in the southern Delta for surplus Delta flows.	230 TAF
South-of-Delta Aqueduct Storage				
Garzas Reservoir	Stanislaus County Garzas Creek	Off-Stream Storage	Off-aqueduct storage for the California Aqueduct or the Delta-Mendota Canal.	139 to 1,754 TAF
Ingram Canyon	Stanislaus County Ingram Creek	Off-Stream Storage	Off-aqueduct storage for the California Aqueduct or the Delta-Mendota Canal.	333 to 1,201 TAF
Kettleman Plain	Kings County Kettleman Hill	Off-Stream Storage	Off-aqueduct storage for the California Aqueduct or the Delta-Mendota Canal.	133 to 283 TAF
Little Salado-Crow Reservoir	Stanislaus County Crow Creek	Off-Stream Storage	Off-aqueduct storage for the California Aqueduct or the Delta-Mendota Canal.	132 to 250 TAF
Los Banos Grandes	Merced County Los Banos Creek	Off-Stream Storage	Off-aqueduct storage for the California Aqueduct or the Delta-Mendota Canal.	275 to 2,030 TAF
Los Vaqueros Enlargement	Contra Costa County Kellogg Creek	Off-Stream Storage	Off-aqueduct storage for the California Aqueduct or the Delta-Mendota Canal.	Additional 965 TAF (100 TAF under const.)
Orestimba Reservoir	Stanislaus County Orestimba Creek	Off-Stream Storage	Off-aqueduct storage for the California Aqueduct or the Delta-Mendota Canal.	380 to 1,140 TAF
Panoche Reservoir	Fresno County Silver Creek	Off-Stream Storage	Off-aqueduct storage for the California Aqueduct or the Delta-Mendota Canal.	160 to 3,100 TAF
Quinto Creek Reservoir	Merced/Stanislaus County Quinto Creek	Off-Stream Storage	Off-aqueduct storage for the California Aqueduct or the Delta-Mendota Canal.	332 to 381 TAF
Romero Reservoir	Merced County Romero Creek	Off-Stream Storage	Off-aqueduct storage for the California Aqueduct or the Delta-Mendota Canal.	184 TAF
San Luis Reservoir Enlargement	Merced County	Off-Stream Storage	Off-aqueduct storage for the California Aqueduct or the Delta-Mendota Canal.	Additional 390 TAF
Sunflower Reservoir	Kings/Kern Counties Avenal Creek	Off-Stream Storage	Off-aqueduct storage for the California Aqueduct or the Delta-Mendota Canal.	360 to 600 TAF

**Table 2
Surface Storage Components Initial Screening**

Component	Minimum Capacity	Excessive Storage Size	Conflict with Solution Principles	Engineering Constraints and excessive cost	Retained for Level Two
West Side Sacramento Valley					
Clair Engle Lake Enlargement			X		
Colusa Reservoir Complex				?	
Cottonwood Creek Reservoir Complex			X		
Fiddlers Reservoir				?	
Gallatin Reservoir	X				
Glenn Reservoir				?	
Hulen Reservoir	X		X		
Lake Berryessa Enlargement				?	
Large Lake Berryessa Enlargement, >6.5 MAF		X			
Red Bank Project (Dippingvat-Schoenfeld Project)				?	
Rosewood Reservoir	X				
Large Shasta Lake Enlargement, >6.5MAF		X			
Shasta Lake Enlargement				?	
Sites Reservoir				?	
Thomes-Newville Reservoir				?	
East Side Sacramento Valley					
Allen Camp Reservoir	X				
Auburn Reservoir				?	
Bella Vista Reservoir	X		X		
Coloma Reservoir				?	

**Table 2
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Component	Minimum Capacity	Excessive Storage Size	Conflict with Solution Principles	Engineering Constraints and excessive cost	Retained for Level Two
Deer Creek Meadows Reservoir	X		X		
Folsom Reservoir Enlargement				?	
Freemans Crossing Reservoir			X		
Garden Bar Reservoir				?	
Kosk Reservoir			X		
Marysville Reservoir			X		
Millville Reservoir	X		X		
Squaw Valley Reservoir				X	
Tuscan Buttes Reservoir			X		
Waldo Reservoir				?	
Wing Reservoir			X		
In-Delta					
Chain of Lakes Facility				X	
In-Delta Storage				?	
South-of-Delta Aqueduct Storage					
Garzas Reservoir				?	
Ingram Canyon				X	
Kettleman Plain				X	
Little Salado-Crow Reservoir				X	
Los Banos Grandes				?	
Los Vaqueros Enlargement				?	

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Component	Minimum Capacity	Excessive Storage Size	Conflict with Solution Principles	Engineering Constraints and excessive cost	Retained for Level Two
Orestimba Reservoir				?	
Panoche Reservoir				?	
Quinto Creek Reservoir				X	
Romero Reservoir				X	
San Luis Reservoir Enlargement				?	
Sunflower Reservoir				X	
San Joaquin Valley					
Clay Station	X				
Cooperstown Reservoir				?	
Deer Creek Reservoir			X		
Duck Creek Reservoir	X		X		
Farmington Reservoir Enlargement	X		X		
Millerton Lake Enlargement				?	
Montgomery Reservoir				?	
Nashville Reservoir			X		
Pardee Reservoir Enlargement	X				
South Gulch Reservoir	X				