

**Backbone Improvements Program
Alternatives to Address Water Storage Deficiency**

	<u>Title</u>	<u>Description</u>	<u>Suggested By</u>	<u>When Considered</u>	<u>Reference</u>
I. WATER STORAGE					
1	Tank at Site A	Construct a 5 MG tank at the south end of the saddle dam.	Alternative Study	October 2009	LVMWD Report No. 2433.00
2	Tank at Site B	Construct a tank east of Westlake Pump Station below main dam.	Alternative Study	October 2009	LVMWD Report No. 2433.00
3	Tank at Site C (Access Route No. 1)	Construct a tank at the east side of Las Virgenes Reservoir with access across main dam.	Alternative Study	October 2009	LVMWD Report No. 2433.00
4	Tank at Site C (Access Route No. 2)	Construct a tank at the east side of Las Virgenes Reservoir with access from Triunfo.	Public Member	January 2012	Tech Memo
5	Tank at Site C (Access Route No. 3)	Construct a tank at the east side of Las Virgenes Reservoir with access from Yager Way.	City Council Member	January 2012	Tech Memo
6	Tank at Site D	Construct a buried tank in Three Springs Park.	Alternative Study	October 2009	LVMWD Report No. 2433.00
7	Tank at Site E	Construct a tank east of existing Morrison Tank.	Alternative Study	October 2009	LVMWD Report No. 2433.00
8	Tank at Site F	Construct a tank east of existing Morrison Tank.	Alternative Study	October 2009	LVMWD Report No. 2433.00
9	Tank on Donated Property	Use property offered south of Las Virgenes Reservoir for tank, elev. = 2,200 feet	Public Member	January 2012	Public Meeting
10	Smaller Tank at Site A	Build a smaller tank	Staff	June 2012	Tech Memo
11	Two Tanks at Site A	Build two tanks	Board Member	December 2011	Public Meeting
12	Tank Beneath Office Building	Build tank on southside of Agoura Road under new office building	Public Member	December 2011	Public Meeting
13	Tank at Site A (Cement Batch Plant)	Use a cement batch plant at site A rather than concrete trucks	City Staff	December 2011	Public Meeting
14	Alternate Tank Site	Construct tank at different site due to Valley Fever concerns	Public Member	December 2011	Reports/Public Meeting
15	Tank at Lady Face Mountain	Construct a tank on Lady Face Mountain.	Board Member	New	
16	Equestrian Tank Expansion	Expand/enlarge Equestrian Tank utilizing District-owned property on west side.	Staff	New	
17	Las Virgenes Reservoir Bladder	Install bladder in Las Virgenes Reservoir for treated water.	Board Member	New	
II. DEMAND MANAGEMENT/CONSERVATION					
18	Expanded Water Conservation	Expand conservation program to offset storage	Board member	June 2012	Tech Memo
19	Recycled Water for Vineyards	Restrict use of potable water for vineyards	Public Member	December 2012	Public Meeting
20	Irrigation Shutoff Controller	Control individual sprinkler systems to increase supply when needed	Public Member	January 2013	Tech Memo
21	Expand Conservation Rebates	Expand conservation using rebates	Board Member	New	
22	Community Water Conservation Panel	Establish a community panel to develop ideas to increase conservation	Board Member	New	

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23	Moratorium on New Meters (West End)	Do not issue "Will Serve" letters or certify fire flow for new construction	Staff	New	
24	Moratorium on Fire Flow Certification (West End)	Do not certify fire flow for new construction	Staff	New	
25	AMI Flow Restrictors (West End)	Restrict flow to customer during high demand periods using AMI technology.	Board Member	New	
26	MDD Customer Allocation (West End)	Allocate maximum allowable customer demands during peak periods.	Board Member	New	
27	Single-Family Recycled Water Usage	Convert single-family outdoor irrigation systems to recycled water.	Board Member	New	
28	Mandatory Water Conservation	Enact mandatory water usage restrictions to reduce maximum day demand.	Staff	New	
III. OTHER APPROACHES					
29	Pumping & Transmission Improvements	Use increased pumping & transmission mains vs. storage	Master Plan	2007	LVMWD Report No. 2389.00
30	LVMWD-Calleguas Interconnection (A)	Construct interconnection w/Calleguas in lieu of additional storage	Master Plan	2007	Master Plans
31	LVMWD-Calleguas Interconnection (B)	Construct interconnection w/Calleguas and defer additional storage	Master Plan	2007	Master Plans
32	LADWP Interconnections	Use DWP connections in non-emergencies	Staff	June 2012	Tech Memo
33	Boil Water Order	Issue a boil order and use un-treated water for fire flow	Board member	January 2012	Public Meeting
34	Standards Comparison	Compare standards used by other agencies in calculating need for storage	Staff	December 2011	e-mail/Public Meeting
35	Probability Analysis	Perform Probability Study of MDD & FF occurring at same time	Board Member	New	
36	"Group Think Fund"	Offer prize money for alternative suggestions	Public Member	New	
37	MWD Turnout Peaking	Peak off of MWD connections	Staff	New	
38	Time-of-Day Pricing	Develop a rate structure with a premium for usage during high demand periods.	Board Member	New	
39	Revise Criteria	Revise operational & emergency storage criteria	Staff	New	
IV. DO NOTHING					
40	Do not build 5 MG tank	Do not build tank but continue with other Backbone Improvements	Staff	New	
41	Do not expand filter plant	Do not build tank or expand plant but continue with other Backbone Improvements	Staff	New	
42	Do not modernize pump station	Do not build tank, expand plant or modernize pump station but continue with other Backbone Improvements	Staff	New	
43	Do not construct Calabasas Pipeline	Do not complete Backbone Improvements & negotiate contract close for Calabasas Pipeline	Staff	New	
44	Stop all backbone improvement projects until Master Plan is complete	Delay all Backbone Improvements until Master Plan is complete & reevaluate need	Staff	New	