State Water Resources Control Board Drought Emergency Conservation Urban Wholesaler Supply Reliability Analysis - Revised June 24, 2016

(data in acre feet)

Wholesale Agency:	Calleguas Municipal Water District
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Calleguas Municipal Water District Supplies Available to Member Retail Purveyors

	2017	2018	2019
Berylwood Heights Mutual Water Co.	0.2	0.2	0.2
Brandeis Mutual Water Co.	73	73	73
Butler Ranch Mutual Water	=	=	=
California American Water Co.	17,426	17,426	17,426
California Water Service Co.	8,272	8,272	8,272
Camarillo, City of	6,068	6,068	6,068
Camrosa Water District	6,967	6,967	6,967
Crestview Mutual Water Co.	405	356	356
Golden State Water Company	6,494	6,494	6,494
Oak Park Water Service	2,688	2,688	2,688
Oxnard, City of	15,106	15,106	15,106
Pleasant Valley Mutual Water District	526	526	526
Simi Valley, City of	22,704	22,704	22,704
Solano Verde Mutual Water Co.	385	385	385
Thousand Oaks, City of	12,304	12,304	12,304
Ventura Co WWD #1	10,009	10,009	10,009
Ventura Co WWD #19	1,084	1,084	1,084
Ventura Co WWD #38	1,471	1,471	1,471
Total Wholesale Supplies	111,980	111,931	111,931

Note: Data in shaded cells correspond to data cells shaded in same color throughout workbook.

Calleguas MWD Service Area Water Demand & Supply Summary

(data in acre feet)

Retail Production	2013	2014	Average ¹
Total Retail Production	145,972	137,290	141,631

Projected Local Supplies	2017	2018	2019
	(2013 hydrology)	(2014 hydrology)	(2015 hydrology)
Groundwater ²	29,651	29,700	29,700
Groundwater Recovery (new since 2014)			
Surface Water (new since 2014)			
Seawater Desalination (new since 2014)			
Transfer & Exchange Supplies (new since 2014)			
Other (new since 2014)			
Total Local Supplies	29,651	29,700	29,700

	2017	2018	2019
Projected Wholesale Water Demand	(2013 hydrology)	(2014 hydrology)	(2015 hydrology)
Retail Demand (2013/2014 average)	141,631	141,631	141,631
Total Local Supplies	29,651	29,700	29,700
Wholesale Water Demand	111,980	111,931	111,931

5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2017	2018	2019
Projected Wholesale Water Supply	(2013 hydrology)	(2014 hydrology)	(2015 hydrology)
Wholesale Water Availability (MWDSC) ³	111,980	111,931	111,931

Projected Wholesale Water Surplus/Shortage	2017 (2013 hydrology)	2018 (2014 hydrology)	2019 (2015 hydrology)
Supply Surplus/(Shortage)	0	0	0
Reduction to Wholesale Water Supply	0%	0%	0%

Note: Data in shaded cells correspond to data cells shaded in same color throughout workbook.

Footnotes:

- 1 As per Calleguas MWD delivery records and local production data provided by member purveyors (see 2013 & 2014 Retail Production tab)
- 2 Member purveyor local groundwater production projections as provided to CMWD (see Groundwater Projections tab)
- 3 As per Metropolitan Water District of Southern California (MWDSC) June 15, 2016 Urban Water Supply Reliability Analysis (see MWDSC tab)

Calleguas MWD

Member Retail Purveyors 2013-14 Water Production (data in acre feet)

	2013		2014			2-Year Average Total Water	
Purveyor	Imported ¹	Groundwater ²	Total	Imported ¹	Groundwater ²	Total	Production
Berylwood Heights Mutual Water Co.	0.4	0.0	0.4	0.0	0.0	0.0	0.2
Brandeis Mutual Water Co.	74	0	74	71	0	71	73
Butler Ranch Mutual Water	0	0	0	0	0	0	0
California American Water Co.	17,803	0	17,803	17,049	0	17,049	17,426
California Water Service Co.	8,390	0	8,390	8,153	0	8,153	8,272
Camarillo, City of	5,223	4,496	9,719	5,091	3,725	8,816	9,268
Camrosa Water District	6,939	3,495	10,434	6,359	3,735	10,094	10,264
Crestview Mutual Water Co.	280	812	1,092	282	739	1,021	1,056
Golden State Water Company	6,584	892	7,476	6,373	764	7,137	7,307
Oak Park Water Service	2,765	0	2,765	2,611	0	2,611	2,688
Oxnard, City of	15,331	18,645	33,976	13,550	17,314	30,863	32,420
Pleasant Valley Mutual Water District	255	1,001	1,256	428	672	1,100	1,178
Simi Valley, City of	23,221	129	23,350	22,182	125	22,307	22,828
Solano Verde Mutual Water Co.	354	0	354	417	0	417	385
Thousand Oaks, City of	12,650	0	12,650	11,958	0	11,958	12,304
Ventura Co WWD #1	8,631	3,519	12,150	8,875	2,505	11,379	11,765
Ventura Co WWD #19	825	2,190	3,015	997	1,845	2,842	2,928
Ventura Co WWD #38	1,470	0	1,470	1,473	0	1,473	1,471
Totals	110,793	35,180	145,972	105,868	31,422	137,290	141,631

Note: Data in shaded cells correspond to data cells shaded in same color throughout workbook.

Footnotes:

- 1 As per CMWD delivery records.
- 2 As documented in purveyor local production submittals to CMWD. Includes recovered groundwater by Camrosa WD and City of Simi Valley.

Calleguas MWD Member Purveyors Groundwater Production Projections

(data in acre feet)

Purveyor	2017 (2013 Hydrology)	2018 (2014 Hydrology)	2019 (2015 Hydrology)
Berylwood Heights Mutual Water Co.	0	0	0
Brandeis Mutual Water Co.	0	0	0
Butler Ranch Mutual Water	0	0	0
California American Water Co.	0	0	0
California Water Service Co.	0	0	0
Camarillo, City of	3,200	3,200	3,200
Camrosa Water District	3,297	3,297	3,297
Crestview Mutual Water Co.	651	700	700
Golden State Water Company	813	813	813
Oak Park Water Service	0	0	0
Oxnard, City of	17,314	17,314	17,314
Pleasant Valley Mutual Water District	652	652	652
Simi Valley, City of	125	125	125
Solano Verde Mutual Water Co.	0	0	0
Thousand Oaks, City of	0	0	0
Ventura Co WWD #1	1,756	1,756	1,756
Ventura Co WWD #19	1,844	1,844	1,844
Ventura Co WWD #38	0	0	0
Totals	29,651	29,700	29,700

Note: Data in shaded cells correspond to data cells shaded in same color throughout workbook.

State Water Resources Control Board Drought Emergency Conservation Urban Wholesaler Supply Reliability Analysis - Revised 6/22/2016

Orban Wholesaler Supply Reliability Analysis - Revised 6/22/2016					
Metropolitan Water District of Southern California Supplies Available to Urban Water Suppliers					
	2017	2018	2019		
City of Anaheim	19,682	19,691	19,688		
City of Beverly Hills	10,917	10,917	10,917		
City of Burbank	14,271	14,246	14,246		
Calleguas MWD	111,980	111,931	111,931		
Central Basin MWD	53,065	53,096	37,127		
City of Compton	389	0	361		
Eastern MWD	97,217	99,805	101,053		
Foothill MWD	9,380	9,409	9,525		
City of Fullerton	8,762	8,766	8,765		
City of Glendale	19,114	19,292	19,394		
Inland Empire Utilities Agency	69,752	69,752	61,269		
Las Virgenes MWD	23,517	23,517	23,517		
City of Long Beach	26,053	26,053	26,053		
Los Angeles DWP	385,624	387,624	424,024		
Municipal Water District of Orange County	226,880	226,880	226,880		
City of Pasadena	21,714	21,714	21,714		
San Diego County Water Authority	290,798	257,237	233,242		
City of San Fernando	0	0	190		
City of San Marino	962	962	962		
City of Santa Ana	11,577	11,583	9,581		
City of Santa Monica	5,033	5,033	5,033		
Three Valleys MWD	67,970	71,828	74,269		
City of Torrance	19,457	15,457	15,457		
Upper San Gabriel Valley MWD	48,963	48,651	66,784		
West Basin MWD	129,042	127,706	127,213		
Western MWD	78,374	77,007	76,757		
Supplies Available to Urban Water Suppliers	1,750,490	1,718,154	1,725,949		

Note: Data in shaded cells correspond to data cells shaded in same color throughout workbook.

These figures and associated analyses are revised from Metropolitan's 6/15/16 posting. The revisions are based on updated estimates of wholesale requests for water supplies provided by Metropolitan's member agencies. Annua other supply and demand changes, the revised information removes, per SWRG direction, the value of water supplies developed through the investments in structural conservation and recycled water that offsets postable demands for water. Metropolitan has a concern with the SWRG direction on conservation and recycled water beause it is proserved to prove the legitimate supply value of investments made in these areas. This is in conflict with state policy recognizing and encouraging the development of conservation and recycled water supplies. Further, the exclusion of conservation and recycled water supplies. Further, the exclusion of conservation and recycled water supplies. Further, the exclusion of conservation and recycled water supplies. Further, the exclusion of conservation and recycled water supplies and emand analysis.

The supplies shown in this table are directly based on the amounts of wholesale supply requested by Metropolitan's Member Agencies and are consistent with their estimated supplies and demands as they pertain to the Emergency Regulations.

Metropolitan is providing this information pursuant to the emergency regulation set forth in Section 864.5(g) of Tille 23 of the California Code of Regulations. In compliance with Section 864.5(g), Metropolitan has calculated, to the best of its ability, the volume of water that I expects it would have available to delive to each of its member agencies in each of the next three years under the assumptions identified in Section 864.5(b) of Title 23 of the California Code of Regulations. These numbers are not in any way meant to be — not should they be interpreted as — guaranteed, minimum, or contractual amounts of vaster instead, these estimated supply numbers are based on the information available at this time to Metropolitan and the sample contraction 86.5(b). I unformer, while the estimated supply and demand balances and storage capability are fully documented, these analyses do not in any way obligate the actual operation of Metropolitan's system over the next three waxe.

Wholesale Water Supply Assessment - Revised 6/22/2016

	2017	2018	2019
Total Member Agency Wholesale Requests	1,750,490	1,718,154	1,725,949
Total Water Demand	1,750,490	1,718,154	1,725,949
Metropolitan Water Supply Sources			
	2017	2018	2019
Total State Water Project Supplies	736,960	105,280	421,120
Total Colorado River Aqueduct Supplies	752,000	776,000	752,00
Structural Conservation since 2013-2014*	62,451	58,422	52,320
Total Storage: Take/(Put)	261,530	836,874	552,829
Total Water Supply	1,750,490	1,718,154	1,725,949
Water Supply and Demand Balance	2017	2018	2019
Total Water Demand	1.750.490	1.718.154	1,725,949
Total Water Supply	1,750,490	1,718,154	1,725,949
Water Balance: Surplus/(Shortage)	0	0	
Reduction to Wholesale Water Requests	0%	0%	09

*Structural conservation savings are excluded from this assessment per SWRCB memo 6/22/2016

Wholesale Water Demands - Revised 6/22/2016

	2017	2018	2019
City of Anaheim	19,682	19,691	19,688
City of Beverly Hills	10,917	10,917	10,917
City of Burbank	14,271	14,246	14,246
Calleguas MWD	111,980	111,931	111,93
Central Basin MWD	53,065	53,096	37,127
City of Compton	389	0	361
Eastern MWD	97,217	99,805	101,053
Foothill MWD	9,380	9,409	9,525
City of Fullerton	8,762	8,766	8,765
City of Glendale	19,114	19,292	19,394
Inland Empire Utilities Agency	69,752	69,752	61,269
Las Virgenes MWD	23,517	23,517	23,517
City of Long Beach	26,053	26,053	26,053
Los Angeles DWP	385,624	387,624	424,024
Municipal Water District of Orange County	226,880	226,880	226,880
City of Pasadena	21,714	21,714	21,714
San Diego County Water Authority	290,798	257,237	233,242
City of San Fernando	0	0	190
City of San Marino	962	962	962
City of Santa Ana	11,577	11,583	9,581
City of Santa Monica	5,033	5,033	5,033
Three Valleys MWD	67,970	71,828	74,269
City of Torrance	19,457	15,457	15,457
Upper San Gabriel Valley MWD	48,963	48,651	66,784
West Basin MWD	129,042	127,706	127,213
Western MWD	78,374	77,007	76,757
Total Member Agency Wholesale Requests	1,750,490	1,718,154	1,725,949

The Member Agency Wholesale Requests shown in this table were provided to Metropolitan by each of its Member Agencies throught a coordinated data collection process.

Imported Water Supplies

	2017	2018	2019
State Water Project Allocation	35%	5%	20%
MWD Table A	669,025	95,575	382,300
DWCV Table A	67,935	9,705	38,820
Total State Water Project Supplies	736,960	105,280	421,120
Colorado River Aqueduct Base Supply Programs			
	2017	2018	2019
Basic Apportionment – Priority 4	550,000	550,000	550,000
IID/MWD Conservation Program	85,000	85,000	85,000
Priority 5 Apportionment (Surplus)	0	0	0
Canal Lining Supplies - San Luis Rey	16,000	16,000	16,000
PVID Land Management Program	130,000	130,000	130,000
Lower Colorado Water Supply Project	8,000	8,000	8,000
Binational ICS	0	24,000	0
Forbearance for Present Perfected Rights	(2,000)	(2,000)	(2,000)
CVWD SWP/QSA Transfer Obligation	(35,000)	(35,000)	(35,000)
DWCV SWP Table A Obligation	(67,935)	(9,705)	(38,820)
DWCV SWP Table A Transfer Callback	67,935	9,705	38,820
SNWA Agreement Payback	0	0	0
Total Colorado River Aqueduct Supplies	752,000	776,000	752,000

Imported Water Supplies Documentation

State Water Project Base Supply Programs	
Program	Reference
State Water Project Allocation	Historical State Water Project Allocations
MWD Table A	2015 Urban Water Management Plan; A.3-18
DWCV Table A	2015 Urban Water Management Plan; A.3-19
Colorado River Aqueduct Base Supply Programs	
Program	Reference
Basic Apportionment – Priority 4	2015 Urban Water Management Plan; A.3-1
IID/MWD Conservation Program	2015 Urban Water Management Plan; A.3-3
Priority 5 Apportionment (Surplus)	2015 Urban Water Management Plan; A.3-5
Canal Lining Supplies - San Luis Rey	2015 Urban Water Management Plan; A.3-8
PVID Land Management Program	2015 Urban Water Management Plan; A.3-5
Lower Colorado Water Supply Project	2015 Urban Water Management Plan; A.3-13
Binational ICS	2015 Urban Water Management Plan; A.3-14
Forbearance for Present Perfected Rights	2015 Urban Water Management Plan; A.3-3
CVWD SWP/QSA Transfer Obligation	2015 Urban Water Management Plan; A.3-10
DWCV SWP Table A Obligation	2015 Urban Water Management Plan; A.3-19
DWCV SWP Table A Transfer Callback	2015 Urban Water Management Plan; A.3-19
SNWA Agreement Payback	2015 Urban Water Management Plan; A.3-12

Other Water Supplies - Revised 6/22/2016

Growth in Structural Conservation			
	2017	2018	2019
Existing Structural Conservation	225,183	221,154	215,052
Structural Conservation as of 2013-2014	162,733	162,733	162,733
Structural Conservation since 2013-2014*	62,451	58,422	52,320

*Structural conservation savings are excluded from this assessment per SWRCB memo 6/22/2016

Structural conservation is device and program-based conservation originally funded by Metropolitan and/or member and local agencies. Examples are ULFT Toilet retrofits, irrigation Controllers and Turf Removal. For additional information reference:

Annual Progress Report on Achievements in Conservation, Recycling and Groundwater Recharge 2015 Integrated Water Resources Plan Update; 3.20

Water Supplies from Storage - Revised 6/22/2016

	2017	2018	2019
Puts to Storage	0	0	0
Takes from Storage	261,530	836,874	552,829
Total Storage: Take/(Put)	261,530	836,874	552,829
Annual Storage Accounting			
	2017	2018	2019
Total Estimated Starting Storage Balance	2,117,000	1,855,470	1,018,597
Total Storage: Take/(Put)	261,530	836,874	552,829
Total Estimated Ending Storage Balance	1.855,470	1.018.597	465,768

Water Supplies from Storage Documentation

2017 Total Estimated Starting Storage Balance includes projected dry-year storage of 1,487,000 acrefeet, and 630,000 acre-feet of additional emergency storage. For additional information reference: Water Surplus and Drought Management Report as of 5/10/2016

Metropolitan Water Storage Programs	Reference
In-Region Surface Storage	2015 Urban Water Management Plan; A.3-37
Flexible Storage Accounts	2015 Urban Water Management Plan; A.3-40
State Water Project Carryover	2015 Urban Water Management Plan; A.3-18
Groundwater Conjunctive Use Programs	2015 Urban Water Management Plan; A.3-44
Kern Delta Water Management Program	2015 Urban Water Management Plan; A.3-31
Antelope Valley East Kern Program	2015 Urban Water Management Plan; A.3-26
San Bernardino Valley MWD Program	2015 Urban Water Management Plan; A.3-24
Arvin-Edison Water Management Program	2015 Urban Water Management Plan; A.3-22
Semitropic Water Banking and Exchange	2015 Urban Water Management Plan; A.3-21
Mojave Water Agency Storage Program	2015 Urban Water Management Plan; 3-27
Desert Water/Coachella Valley Programs	2015 Urban Water Management Plan; A.3-19
Lake Mead ICS Program	2015 Urban Water Management Plan; A.3-14
Emergency Storage	2015 Urban Water Management Plan; A.3-38