

Attachment 2

To: Trish Rhay and Steve Bucknam
 From: Harvey R. Gobas, PE
 Date: January 15, 2015
 Subject: Ten-Year Estimated Costs for Nine Shortlisted Alternatives Including a Summary of Proposed Portfolio Scenario Costs

In response to questions from the Public Works Commissioners received earlier this week, we have created a series of spreadsheets identifying the estimated costs over the next ten years for the proposed Water Enterprise Plan portfolio scenario as well as for the other short-listed alternatives that are not included in our recommendations.

In considering the actual costs that would be incurred for each of the nine shortlisted alternatives, we have assumed three percent compounded annual inflation over the ten year period and have escalated costs by that factor for each year. All of the costs also now include projected operation and maintenance expenditures. Given the preliminary nature of these estimates, we have also provided high and low ranges for the projected costs utilizing the widely accepted guidelines established by the American Association of Cost Estimators (AACE). Those guidelines suggest using (-30%) and (+50%) for the low and high ends of the range, respectively, for planning level projects in which no preliminary or final engineering design has been performed.

Additionally, we have created 10-year cost spreadsheets for MWD water purchases and for staffing. The MWD costs are based on MWD's currently adopted 10-year rates and thus, do not include any additional inflation factor. We have escalated the staffing costs by three percent per year, but have not applied the AACE high and low range factors to them. Please also note the staffing costs include 10 of the recommended 11 positions. The eleventh position (Water Conservation Coordinator) has been included with the Water Conservation Cost Table.

The overall, 10-year escalated costs for the recommended portfolio are summarized below. Detailed copies of the respective spreadsheets are also attached for your review. We will be summarizing this information and look forward to answering any related questions at the Special Public Works Commission meeting scheduled for January 22, 2015.

Proposed Portfolio Scenario	Sum of 10-Year Escalated Costs (Rounded)
Water Conservation (including Water Conservation Coordinator)	\$3,700,000
Water Banking	\$7,800,000
Groundwater Development (La Brea Sub-Basin)	\$37,900,000
MWD Water Purchases	\$105,700,000
Staffing	\$12,900,000
Subtotal of Proposed Portfolio Scenario	\$168,000,000
Subtotal Less MWD and Staffing	\$49,400,000
Low Range Cost (-30% except for MWD and Staffing)	\$153,200,000
High Range Cost (+50% except for MWD and Staffing)	\$192,700,000

Annual Costs for Proposed Portfolio Scenario¹

	FISCAL YEAR										Total	
	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25		
Water Conservation	\$ 499,500	\$ 418,953	\$ 429,930	\$ 311,700	\$ 321,051	\$ 330,683	\$ 340,603	\$ 350,822	\$ 361,346	\$ 372,187	\$ 3,736,775	
Water Banking	\$ 2,720,000	\$ 43,775	\$ 1,262,471	\$ 1,300,345	\$ 47,834	\$ 49,269	\$ 50,747	\$ 1,099,753	\$ 1,132,746	\$ 55,453	\$ 7,762,394	
Groundwater Development (LBSB)	\$ 200,000	\$ 2,446,000	\$ 1,777,000	\$ 2,841,000	\$ 9,792,000	\$ 9,390,000	\$ 2,924,000	\$ 2,766,000	\$ 2,849,000	\$ 2,934,000	\$ 37,919,000	
MWD Water Purchases	\$ 10,723,750	\$ 10,814,963	\$ 10,234,680	\$ 10,378,185	\$ 10,551,264	\$ 10,928,540	\$ 11,360,160	\$ 9,816,804	\$ 10,231,146	\$ 10,653,948	\$ 105,693,440	
Staffing	\$ 725,000	\$ 746,750	\$ 1,510,722	\$ 1,556,043	\$ 1,602,725	\$ 1,650,806	\$ 1,700,330	\$ 1,105,657	\$ 1,138,826	\$ 1,172,991	\$ 12,909,850	
Total	\$ 14,868,250	\$ 14,470,440	\$ 15,214,802	\$ 16,387,274	\$ 22,314,874	\$ 22,349,298	\$ 16,375,841	\$ 15,139,035	\$ 15,713,064	\$ 15,188,579	\$ 168,021,458	
											Subtotal (less MWD and Staffing)	\$ 49,418,168
											Low Cost (-30%) ²	\$ 153,196,007
											High Cost (+50%) ²	\$ 192,730,542

¹ Costs are escalated at 3% annually, compounded with the exception of MWD Water Purchases which use MWD's currently adopted 10-year rates.

² Low and High Cost range calculated on sub-total of Water Conservation, Water Banking, and Groundwater Development only with MWD Water Purchase and Staffing Costs (no range applied) added directly.

PROPOSED

Water Conservation Program Costs											
	FISCAL YEAR										Total
	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	
Water Conservation											
Capital Programs	\$ 359,500	\$ 274,753	\$ 281,404	\$ 158,719	\$ 163,480	\$ 168,385	\$ 173,436	\$ 178,639	\$ 183,998	\$ 189,518	
Staffing	\$ 140,000	\$ 144,200	\$ 148,526	\$ 152,982	\$ 157,571	\$ 162,298	\$ 167,167	\$ 172,182	\$ 177,348	\$ 182,668	
O&M ¹	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Total	\$ 499,500	\$ 418,953	\$ 429,930	\$ 311,700	\$ 321,051	\$ 330,683	\$ 340,603	\$ 350,822	\$ 361,346	\$ 372,187	\$ 3,736,775
Capital Programs Backup											
Waterfluence	\$ 7,500	\$ 4,750	\$ 3,250	\$ 3,250	\$ 3,250	\$ 3,250	\$ 3,250	\$ 3,250	\$ 3,250	\$ 3,250	
Triton	\$ 72,000	\$ 42,000	\$ 42,000	\$ 42,000	\$ 42,000	\$ 42,000	\$ 42,000	\$ 42,000	\$ 42,000	\$ 42,000	
TaKaDu ²	\$ 180,000	\$ 120,000	\$ 120,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Enhanced Rebates	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	
Totals (2015 Dollars)	\$ 359,500	\$ 266,750	\$ 265,250	\$ 145,250	\$ 1,908,250						
Escalated Totals	\$ 359,500	\$ 274,753	\$ 281,404	\$ 158,719	\$ 163,480	\$ 168,385	\$ 173,436	\$ 178,639	\$ 183,998	\$ 189,518	\$ 2,131,831
											Low Cost (-30%) \$ 1,492,282
											High Cost (+50%) \$ 3,197,747
Annual Inflation	3.0%										
Cost Escalation Factor	1.000	1.030	1.061	1.093	1.126	1.159	1.194	1.230	1.267	1.305	
¹ Assumes O&M for Water Conservation Programs is minor with exception of Water Conservation Coordinator and O&M to repair leaks discovered utilizing TaKaDu or similar system would be incurred anyway, but would just be more efficient. ² Assumes TaKaDu or similar program would justify itself, or not, after 3 years and if continued would not be allocated to WEP after this time.											

PROPOSED

Water Banking Annual Estimate of Costs

			FISCAL YEAR									Total		
			2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24		2024/25	
Total in Storage		AF			1,700	3,400	3,400	3,400	3,400	1,700				
Draw		AF/Yr								1,700	1,700			
Replacement water		AF												
Initial Water Purchase					1,700	1,700								
Total Shares	1700													
Buy in Cost	\$1,600	/Share	\$ 2,720,000											
Initial Water Purchase	\$600	/AF			\$ 1,082,118	\$ 1,114,582								
Initial Put Cost	\$75	/AF			\$ 135,265	\$ 139,323								
O&M	\$25	/Share		\$ 43,775	\$ 45,088	\$ 46,441	\$ 47,834	\$ 49,269	\$ 50,747	\$ 52,270	\$ 53,838	\$ 55,453		
Draw Take	\$75	/AF								\$ 156,809	\$ 161,513			
Power	\$85	/AF								\$ 177,717	\$ 183,048			
Treat	\$341	/AF								\$ 712,958	\$ 734,347			
Replacement Water	\$440	/AF												
Replacement Put	\$75	/AF												
Total Annual Costs			\$ 2,720,000	\$ 43,775	\$ 1,262,471	\$ 1,300,345	\$ 47,834	\$ 49,269	\$ 50,747	\$ 1,099,753	\$ 1,132,746	\$ 55,453	\$ 7,762,394	
													Low Cost (-30%)	\$ 5,433,675
													High Cost (+50%)	\$ 11,643,590
Annual Inflation	3.0%													
Cost Escalation Factor			1.000	1.030	1.061	1.093	1.126	1.159	1.194	1.230	1.267	1.305		

¹ Original unit costs are in 2015 Dollars. All other costs are inflated at 3% per year starting in 2016.

² Unit costs based on estimates provided by the Willow Springs Water Storage Bank

³ Based on having a significant reduction in supply caused by drought condition once each decade

⁴ Similar Costs to those incurred in years 1 - 10, will also ne incurred in years 11 - 20 and 12 - 30.

PROPOSED

Water Drought Insurance Annual Estimate of Costs

			FISCAL YEAR											Total	
			2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25			
Insurance Water		AF	3400	3400	3400										
Draw on Insurance		AF				3400									
Term in years	4	Yrs													
Annual Fee	120	AF/Yr													
Water Insurance	3400	AF													
Loan Fee	\$600	/AF													
Pay back Fee	\$660	/AF													
Power	\$85	/AF													
Wheeling	\$257	/AF													
Treatment	\$341	/AF													
Annual Fee			\$ 408,000	\$ 420,240	\$ 432,847	\$ 445,833									
Loan Fee			\$ 2,040,000												
Energy Cost (est.)						\$ 315,798									
MWD Wheeling Cost						\$ 954,825									
MWD Treatment Cost						\$ 1,266,908									
Bank Pay Back Cost									\$ 2,679,453						
Total Annual Costs			\$ 2,448,000	\$ 420,240	\$ 432,847	\$ 2,983,363	\$ -	\$ -	\$ 2,679,453	\$ -	\$ -	\$ -	\$ 8,963,904		
Total Costs inflated over 10 years			\$ 17,927,808											Low Cost (-30%)	\$ 6,274,733
Total Water Obtained			\$ 3,400	Acre Feet										High Cost (+50%)	\$ 13,445,856
Annual Inflation	3.0%														
Cost Escalation Factor			1.000	1.030	1.061	1.093	1.126	1.159	1.194	1.230	1.267	1.305			

¹ Original unit costs are in 2015 Dollars. All other costs are inflated at 3% per year starting in 2016.
² Unit costs based on estimates provided by the Willow Springs Water Storage Bank and program limited to four year term.
³ Water is to be repaid within 3 years of draw.
⁴ Based on having a significant reduction in supply caused by drought condition once each decade

NOT PROPOSED

Water Spot Loan Estimate of Costs

			FISCAL YEAR											Total	
			2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25			
Loan water Available	3400	AF													
Draw on Loan		AF				3400									
Term in years	4	Yrs													
Loan Fee	\$1,100	AF													
Water, af	3400	AF													
Pay back Fee	\$660	/AF													
Power	\$85	/AF													
Wheeling	\$257	/AF													
Treatment	\$341	/AF													
Loan Fee						\$ 3,740,000									
Energy Cost (est.)								\$ 315,798							
MWD Wheeling Cost								\$ 954,825							
MWD Treatment Cost								\$ 1,266,908							
Bank Pay Back Cost									\$ 2,679,453						
Total Annual Costs						\$ 3,740,000		\$ 2,537,531		\$ 2,679,453				\$ 8,956,984	
Total Costs inflated over 10 years						\$ 17,913,968							Low Cost (-30%)	\$ 6,269,889	
Total Water Obtained						\$ 3,400 Acre Feet							High Cost (+50%)	\$ 13,435,476	
Annual Inflation	3.0%														
Cost Escalation Factor		0.030				1.000	1.030	1.061	1.093	1.126	1.159	1.194	1.230	1.267	1.305
<p>¹ Original unit costs are in 2015 Dollars. All other costs are inflated at 3% per year starting in 2016.</p> <p>² Unit costs based on estimates provided by the Willow Springs Water Storage Bank and program limited to four year term.</p> <p>³ Water is to be repaid within 3 years of draw.</p> <p>⁴ Based on having a significant reduction in supply caused by drought condition once each decade</p>															

NOT PROPOSED

Water Insurance Annual Estimate of Costs - Exchange from Central Basin with LADWP

				FISCAL YEAR										Total		
				2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25			
Production per well	1,000	gpm														
Annual Production	1,200	AF														
Land required	0.25	Acres														
Life of Wells for Production Estimate	40	Years														
Total production over life of wells	48000	AF														
CAPITAL COSTS																
Production Well:																
Purchase Water Rights in Main Central Basin	\$15,000	per AF	1200	AFY	\$18,540,000											
Land (cost per 0.25 acre)	\$625,000	per 1/4 acre	1		\$643,750											
Well installation & equipping	\$2,500,000	per well	1			\$1,406,886	\$1,449,093									
Well permitting/Engineering	\$375,000		1		\$198,919	\$204,886										
Forebay and Pump Station:																
Cost for Pump Station	\$625,000	each	1		\$703,443.01											
Permitting/Engineering for pipeline	\$93,750		0		\$81,955											
Pipeline:																
Cost for Pipeline	\$250,000	\$200 per foot	1000	LF				\$289,819								
Permitting/Engineering for pipeline	\$37,500		1		\$42,207											
25% Contingencies in all costs	25%															
O & M COSTS																
Well O&M Cost (5% of Capital costs)	\$1,075,000							\$1,283,606	\$1,322,114	\$1,361,778	\$1,402,631	\$1,444,710				
Well Power Costs	\$98,092							\$117,126	\$120,640	\$124,259	\$127,987	\$131,827				
Forebay & Pump Station O&M Costs (5%)	\$35,938							\$42,911	\$44,199	\$45,525	\$46,890	\$48,297				
Forebay & Pump Station Power Costs (\$)	\$85,830							\$102,486	\$105,560	\$108,727	\$111,989	\$115,348				
Pipeline O&M Costs (5% of Capital)	\$14,375							\$17,165	\$17,679	\$18,210	\$18,756	\$19,319				
WRD RA	\$402,000							\$480,009	\$494,409	\$509,242	\$524,519	\$540,254				
LADWP Wheeling @\$200/AF	\$300,000							\$358,216	\$368,962	\$380,031	\$391,432	\$403,175				
Total Annual Costs					\$19,183,750	\$198,919	\$286,841	\$2,152,536	\$1,738,911	\$2,401,519	\$2,473,564	\$2,547,771	\$2,624,204	\$2,702,931	\$36,310,945	
																Low Cost (-30%) \$25,417,662
																High Cost (+50%) \$54,466,418
Annual Inflation	3.0%															
Cost Escalation Factor		0.03			1.030	1.061	1.093	1.126	1.159	1.194	1.230	1.267	1.305	1.344		

¹ Original unit costs are in 2015 Dollars. All other costs are inflated at 3% per year starting in 2016.

² Estimate of first ten years of the project.

NOT PROPOSED

Groundwater Development Estimate of Costs

OPTION	ESTIMATED COST (2015 \$)	FISCAL YEAR										Total	
		2015/2016	2016/2017	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025		
La Brea Sub-Basin Groundwater	\$23,850,000	Cost for Implementation (\$)											
Feasibility Study	\$500,000	200,000	300,000									\$500,000	
Land Acquisition/Pilot Well Study (1 well)	\$3,000,000		2,000,000	1,000,000								\$3,000,000	
CEQA	\$250,000		75,000	175,000								\$250,000	
Preliminary & Final Design	\$1,300,000			500,000	800,000							\$1,300,000	
Final Land Acquisition	\$2,000,000				1,800,000	200,000						\$2,000,000	
Pipeline Construction	\$4,600,000					1,500,000	3,100,000					\$4,600,000	
RO Plant Upgrade	\$7,000,000					5,000,000	2,000,000					\$7,000,000	
Well Construction (2 add'l wells)	\$5,000,000					2,000,000	3,000,000					\$5,000,000	
System Permitting & Testing	\$200,000							200,000				\$200,000	
Capital Cost Sub-Total (\$)		\$ 200,000	\$ 2,375,000	\$ 1,675,000	\$ 2,600,000	\$ 8,700,000	\$ 8,100,000	\$ 200,000	\$ -	\$ -	\$ -	\$ 23,850,000	
O&M (3,000 AFY GW) ¹	Rate/Volume	\$1,027/AF	2,190 AFY	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,249,130	\$ 2,249,130	\$ 2,249,130	\$ 2,249,130	\$ 8,996,520
Sub-Total (2015 dollars)	---	---	\$ 200,000	\$ 2,375,000	\$ 1,675,000	\$ 2,600,000	\$ 8,700,000	\$ 8,100,000	\$ 2,449,000	\$ 2,249,000	\$ 2,249,000	\$ 2,249,000	\$ 32,846,000
Adjusted for Inflation	---	---	\$ 200,000	\$ 2,446,000	\$ 1,777,000	\$ 2,841,000	\$ 9,792,000	\$ 9,390,000	\$ 2,924,000	\$ 2,766,000	\$ 2,849,000	\$ 2,934,000	\$ 37,919,000
													Low Cost (-30%) \$ 26,543,300
													High Cost (+50%) \$ 56,878,500
													PROPOSED
Annual Inflation		3.0%											
Cost Escalation Factor			1.000	1.030	1.061	1.093	1.126	1.159	1.194	1.230	1.267	1.305	

OPTION	ESTIMATED COST (2015 \$)	FISCAL YEAR										Total	
		2015/2016	2016/2017	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025		
Hollywood Basin Groundwater	\$33,350,000	Cost for Implementation (\$)											
Feasibility Study	\$600,000	300,000	300,000									\$600,000	
Land Acquisition/Pilot Well Study (2 wells)	\$6,000,000		4,000,000	2,000,000								\$6,000,000	
CEQA	\$250,000		75,000	175,000								\$250,000	
Preliminary & Final Design	\$2,000,000			500,000	1,500,000							\$2,000,000	
Final Land Acquisition	\$4,000,000				3,600,000	400,000						\$4,000,000	
Pipeline Construction	\$4,800,000					2,500,000	2,300,000					\$4,800,000	
RO Plant Upgrade	\$7,000,000					5,000,000	2,000,000					\$7,000,000	
Well Construction (4 add'l wells)	\$8,500,000					3,000,000	5,500,000					\$8,500,000	
System Permitting & Testing	\$200,000							200,000				\$200,000	
Capital Cost Sub-Total (\$)		\$ 300,000	\$ 4,375,000	\$ 2,675,000	\$ 5,100,000	\$ 10,900,000	\$ 9,800,000	\$ 200,000	\$ -	\$ -	\$ -	\$ 33,350,000	
O&M (1,500 AFY GW) ²	Rate/Volume	\$1,572/AF	1,500 AFY	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,358,000	\$ 2,358,000	\$ 2,358,000	\$ 2,358,000	\$ 9,432,000
Sub-Total (2015 dollars)	---	---	\$ 300,000	\$ 4,375,000	\$ 2,675,000	\$ 5,100,000	\$ 10,900,000	\$ 9,800,000	\$ 2,558,000	\$ 2,358,000	\$ 2,358,000	\$ 2,358,000	\$ 42,782,000
Adjusted for Inflation	---	---	\$ 300,000	\$ 4,506,000	\$ 2,838,000	\$ 5,573,000	\$ 12,268,000	\$ 11,361,000	\$ 3,054,000	\$ 2,900,000	\$ 2,987,000	\$ 3,077,000	\$ 48,864,000
													Low Cost (-30%) \$ 34,204,800
													High Cost (+50%) \$ 73,296,000
													NOT PROPOSED
Annual Inflation		3.0%											
Cost Escalation Factor			1.000	1.030	1.061	1.093	1.126	1.159	1.194	1.230	1.267	1.305	

¹ La Brea Sub-Basin has maximum production capability of 3,000 AFY netting 2,340 AFY supply after Plant reject. However, O&M cost based on 2,190 AFY groundwater production netting 1,708 AFY. This volume along with 1.0 MGD net from existing HB shallow wells/Plant would provide 25% reliability.

² Hollywood Basin assumed capable of producing an additional 1,500 AFY (average sustainable) netting 1,170 AFY supply after Plant reject. This volume along with 1.0 MGD net from existing HB shallow wells/Plant would provide a total of 2,290 AFY or an approximate 20% reliability.

Estimated Unsubsidized Cost of Huntington Beach Desalinization Plant Water at CBH Service Connection

OPTION	Cost / AF	Cost Without \$250/AF LRP	Summary 2015 Costs/AF	FISCAL YEAR ⁴										10-Year Total (Assuming plant on-line in 2020/21)	
				2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25		
Quoted HB Desal Plant Cost ¹	\$ 1,424	\$ 1,674													
Plus MWD LRP Subsidy	\$ 250														
Capital Component (assumed 1/2 of cost and not subject to escalation)			\$ 837						\$ 837	\$ 837	\$ 837	\$ 837	\$ 837		
Operating Component (subject to 3% CPI escalation)			\$ 837						\$ 999	\$ 1,029	\$ 1,060	\$ 1,092	\$ 1,125		
Pipelines (Regional South Delivery System)	\$ 138	\$ 138	\$ 138						\$ 138	\$ 138	\$ 138	\$ 138	\$ 138		
Wheeling through MWD System ²															
System Access Rate	\$ 243														
Water Stewardship Rate	\$ 41	\$ 445	\$ 445						\$ 531	\$ 547	\$ 564	\$ 581	\$ 598		
Power Costs	\$ 161														
Sub-Total (\$/AF)									\$ 2,506	\$ 2,552	\$ 2,599	\$ 2,648	\$ 2,698		
Annual Cost for Total AF Commitment of		1,700							\$ 4,259,818	\$ 4,337,887	\$ 4,418,299	\$ 4,501,123	\$ 4,586,431	\$ 22,103,557	
														Low Cost (-30%)	\$ 15,472,490
														High Cost (+50%)	\$ 33,155,336
Annual Inflation	3.0%														
Cost Escalation Factor				1.000	1.030	1.061	1.093	1.126	1.159	1.194	1.230	1.267	1.305		

¹ Source = 2013 Huntington Beach Plant Term Sheet

² May be avoidable with negotiations

³ 3% escalation applied to operating and capital costs per term sheet (assumed annual cost split 50:50 between capital and operating costs)

⁴ The absolute earliest the plant could come on-line is 2020/21; 10 yr cost total assumes plant is on-line in 2020/21 (last 5 years only)

NOT PROPOSED

MWD Purchase Costs

	FISCAL YEAR										Total
	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	
Water Supply Breakdown											
Total Water Demand (AF)	12,495	12,325	12,350	12,375	12,328	12,340	12,380	12,420	12,460	12,493	
Less Cumulative Conservation (AF)	195	630	850	1,010	1,140	1,180	1,180	1,180	1,180	1,180	
Less HB GW (AF)	800	400	1,120	1,120	1,120	1,120	1,120	1,120	1,120	1,120	
Less La Brea Sub-Basin (AF)	0	0	0	0	0	0	0	1,708	1,708	1,708	
MWD Supply Required (AF)	11,500	11,295	10,380	10,245	10,068	10,040	10,080	8,412	8,452	8,485	
MWD Tier 1 Treated Rate (\$/AF) ¹	\$933	\$958	\$986	\$1,013	\$1,048	\$1,089	\$1,127	\$1,167	\$1,211	\$1,256	
Total MWD Purchase Cost	\$ 10,723,750	\$ 10,814,963	\$ 10,234,680	\$ 10,378,185	\$ 10,551,264	\$ 10,928,540	\$ 11,360,160	\$ 9,816,804	\$ 10,231,146	\$ 10,653,948	\$ 105,693,440

¹ MWD rate is average of calendar year Full Service Tier 1 Treated Volumetric Cost (\$/AF) from Attachment 10 to 4/8/2014 MWD Board Meeting Package. Inflation built into these rates.

PROPOSED

Recommended Staffing

	FISCAL YEAR										Total
	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	
Ten Staff Positions¹											
Project Manager 1	\$ 175,000	\$ 180,250	\$ 185,658	\$ 191,227	\$ 196,964	\$ 202,873	\$ 208,959				
Project Manager 2	\$ 175,000	\$ 180,250	\$ 185,658	\$ 191,227	\$ 196,964	\$ 202,873	\$ 208,959				
Project Manager 3	\$ 175,000	\$ 180,250	\$ 185,658	\$ 191,227	\$ 196,964	\$ 202,873	\$ 208,959				
Water Resource Manager	\$ 200,000	\$ 206,000	\$ 212,180	\$ 218,545	\$ 225,102	\$ 231,855	\$ 238,810	\$ 245,975	\$ 253,354	\$ 260,955	
Water Treatment Operator 1			\$ 141,100	\$ 145,333	\$ 149,693	\$ 154,183	\$ 158,809	\$ 163,573	\$ 168,480	\$ 173,535	
Water Treatment Operator 2			\$ 141,100	\$ 145,333	\$ 149,693	\$ 154,183	\$ 158,809	\$ 163,573	\$ 168,480	\$ 173,535	
Water Treatment Operator 3			\$ 141,100	\$ 145,333	\$ 149,693	\$ 154,183	\$ 158,809	\$ 163,573	\$ 168,480	\$ 173,535	
Pump/Well Mechanic			\$ 106,090	\$ 109,273	\$ 112,551	\$ 115,927	\$ 119,405	\$ 122,987	\$ 126,677	\$ 130,477	
Pump/Well Electrician			\$ 106,090	\$ 109,273	\$ 112,551	\$ 115,927	\$ 119,405	\$ 122,987	\$ 126,677	\$ 130,477	
Water Distribution Operator			\$ 106,090	\$ 109,273	\$ 112,551	\$ 115,927	\$ 119,405	\$ 122,987	\$ 126,677	\$ 130,477	
Total Staffing Cost	\$ 725,000	\$ 746,750	\$ 1,510,722	\$ 1,556,043	\$ 1,602,725	\$ 1,650,806	\$ 1,700,330	\$ 1,105,657	\$ 1,138,826	\$ 1,172,991	\$ 12,909,850
Annual Inflation	3.0%										
Cost Escalation Factor	1.000	1.030	1.061	1.093	1.126	1.159	1.194	1.230	1.267	1.305	

¹ Water Conservation Coordinator included in Water Conservation Costs. Assumes Project Managers phased out or re-assigned as construction of facilities is completed.

PROPOSED