VICTORVILLE WATER DISTRICT WATER RATE STUDY Financial Plan and Reserve Projections Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

TABLE 1
FINANCIAL PLAN AND SUMMARY OF REVENUE REQUIREMENTS

DATE DEVENUE DECLUDEMENTS CUMMARY					Budget				
RATE REVENUE REQUIREMENTS SUMMARY	FY 2015/16	FY 2016/17	FY 2017/18	FY 2018/19	FY 2019/20	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24
Sources of Water Funds									
Water Rate Revenue Under Prevailing Rates (1):									
Water Sales Revenue (2)	\$ 10,010,800	\$ 10,070,865	\$ 10,131,290	\$ 10,192,078	\$ 10,253,230	\$ 10,253,230	\$ 10,253,230	\$ 10,253,230	\$ 10,253,230
Readiness to Serve Revenue (2)	8,004,000	8,052,024	8,100,336	8,148,938	8,197,832	8,197,832	8,197,832	8,197,832	8,197,832
Other, Non-Rate Revenues (3)	3,067,770	1,586,500	1,618,200	1,650,500	1,683,500	1,717,100	1,751,300	1,786,500	1,822,400
Interest Earnings (in Operating & Capital Reserves) (4)	35,000	99,037	86,652	102,651	130,967	156,105	177,428	206,937	210,872
Total Sources of Funds	\$ 21,117,570	\$ 19,808,425	\$ 19,936,478	\$ 20,094,167	\$ 20,265,529	\$ 20,324,267	\$ 20,379,790	\$ 20,444,499	\$ 20,484,334
Uses of Water Funds		10,000,120	10,000,110	20,00 .,101	1 20,200,020	+ 10,02 1,201	20,010,100	4 20, ,	4 20, 10 1,00
Operating Expenses (1):									
Water Purchases	\$ 5.141.200	\$ 1,130,900	\$ 1,212,557	\$ 1,300,378	\$ 1,394,838	\$ 1,496,446	\$ 1,605,753	\$ 1,723,350	\$ 1,849,875
Makeup Obligation	308,300	151,500	163,620	176,710	190,846	206,114	222,603	240,411	259,644
Production Power	1,867,900	1,965,031	2,067,212	2,174,707	2,287,792	2,406,757	2,531,909	2,663,568	2,802,074
Supply Services	2,323,024	2,451,220	2,504,836	2,559,906	2,616,493	2,674,663	2,734,487	2,796,040	2,859,40
SCADA Services	302,934	320,237	327,065	334,066	341,245	348,611	356,170	363,931	371,902
Quality Services	476,898	491,750	501,915	512,311	522,945	533,823	544,954	556,345	568,000
Field Services	2,258,813	2,396,724	2,451,118	2,507,117	2,564,799	2,624,243	2,685,539	2,748,779	2,814,064
Engineering Services	904,513	971,022	991,347	1,012,156	1,033,463	1,055,287	1,077,645	1,100,557	1,124,044
Environmental Programs	402,360	430,632	439,619	448,813	458,221	467,848	477,704	487,793	498,126
Customer Services	2,000,441	2,124,402	2,166,140	2,208,732	2,252,196	2,296,008	2,340,728	2,386,374	2,432,967
Meter Services	2,997,122	3,123,990	3,210,788	3,300,246	2,267,443	1,458,988	1,496,176	1,534,620	1,574,38
Administrative Services	3,496,249	3,615,481	3,690,837	3,767,880	3,846,656	3,927,212	4,009,595	4,093,856	4,180,04
Capital Purchases	-	-	-	-	-	-	-	-	,,-
Subtotal: Operating Expenses	\$ 22,479,754	\$ 19,172,890	\$ 19,727,054	\$ 20,303,022	\$ 19,776,937	\$ 19,496,001	\$ 20,083,262	\$ 20,695,626	\$ 21,334,538
Other Expenditures:	Ψ 22,110,101	Ψ 10,172,000	Ψ 10,727,001	Ψ 20,000,022	Ψ 10,770,007	Ψ 10, 100,001	Ψ 20,000,202	Ψ 20,000,020	Ψ 21,001,000
Existing Debt Service	\$ -	\$ -	\$ -	s -	\$ -	\$ -	\$ -	\$ -	\$ -
New Debt Service	_	_	_	_	_	_	_	_	*
Rate-Funded Capital Expenses	-	_	571,324	1,687,885	3,768,466	6,562,387	6,354,995	6,436,668	4,378,708
Subtotal: Other Expenditures	\$ -	\$ -	\$ 571,324	\$ 1,687,885	\$ 3.768.466	\$ 6,562,387		\$ 6.436.668	\$ 4.378.708
Total Uses of Water Funds	\$ 22,479,754	\$ 19,172,890		\$ 21,990,906		\$ 26,058,388		\$ 27,132,294	\$ 25,713,240
plus: Revenue from Rate Increases (5)	-	996.759	2,060,630	3,195,764	4,406,568	5,663,738	6,266,608	6,884,550	7,517,940
Annual Surplus/(Deficit)	\$ (1,362,184)	,		, ,	, ,	, ,	, ,	, ,	, ,
Net Revenue Regt. (Total Uses less Non-Rate Revenue)	\$ 19,376,984	\$ 17,487,353	·	· , ,				\$ 25,138,856	
Total Rate Revenue After Rate Increases	\$ 18,014,800	\$ 19,119,648		\$ 21,536,780	\$ 22,857,630	\$ 24,114,800			\$ 25,969,002
Projected Annual Rate Revenue Increase	0.00%	5.50%	5.50%	5.50%	5.50%	5.50%	2.50%	2.50%	2.509
Cumulative Increase from Annual Revenue Increases	0.00%	5.50%	11.30%	17.42%	23.88%	30.70%	33.96%	37.31%	40.759
Debt Coverage After Rate Increase (6)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Poduction in Pate Payanue Due to Water Conservation (7)	_13%	1		•					·

Reduction in Rate Revenue Due to Water Conservation (7) -13%

⁽¹⁾ Revenue and expenses for FY 2014/15 and FY 2015/16 were provided by District Staff on 9/8/2015. Revenue and expenses for FY 2016/17 through FY 2023/24 were provided by District Staff on 5/18/2015.

⁽²⁾ Per District Staff, FY 2014/15 revenue includes the 4% rate increase implemented for FY 2014/15.

⁽³⁾ Includes revenue of \$1,512,270 in FY 2015/16 for the sale of property, the Administration Building for Victorville Water District. (source: Memorandum 11/17/2015 Subject Close of Escrow - 17185 Yuma Road, File: SRDA-315111712020)

⁽⁴⁾ Interest income is per the District's budget for FY 2014/15 - 2015/16, and calculated here for all future years.

⁽⁵⁾ Assumes new rates are implemented July 1, 2016 and subsequent increase are effecting each following July 1st.

⁽⁶⁾ Debt coverage after rate increase is shown as "N/A" because outstanding debt is not funded by water rate revenue.

⁽⁷⁾ Assumes the District will achieve a 19% reduction in water use in 2015/16 to meet the 28% Conservation target. The District's Financial Statements indicate a 9% reduction in water use occurred in 2014/15. Total reduction in rate revenue was 4% in FY 2014/15, and 13% is planned for FY 2015/16.

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TABLE 2
RESERVE FUND SUMMARY, UN-RESTRICTED RESERVES

SUMMARY OF CASH ACTIVITY									Budget								
GENERAL WATER FUND RESERVES	FY 2015/16	ı	FY 2016/17	ı	Y 2017/18		FY 2018/19	ı	FY 2019/20	F	Y 2020/21	ı	FY 2021/22	F	Y 2022/23	F	Y 2023/24
Total Beginning Cash (1)	\$ 39,526,413																
Un-Restricted Reserves:						<u> </u>											
Operating Reserve																	
Beginning Reserve Balance (2)	\$ 6,000,000	\$	3,637,816	\$	4,270,111	\$	4,932,000	\$	5,076,000	\$	4,944,000	\$	4,873,617	\$	5,021,000	\$	5,174,000
Plus: Net Cash Flow (After Rate Increases)	(1,362,184)		1,632,295		1,698,730		1,299,025		1,126,695		(70,383)		208,141		196,755		2,289,029
Plus: Transfer of Debt Reserve Surplus	-		-		-		-		-		-		-		-		-
Less: Transfer Out to OPEB Reserve Fund	(1,000,000)		(1,000,000)		(1,000,000)		(1,000,000)		(1,000,000)		-		-		-		-
Less: Transfer Out to Capital Replacement Reserve	-		-		(36,840)		(155,025)		(258,695)		-		(60,757)		(43,755)		(2,129,029)
Ending Operating Reserve Balance	\$ 3,637,816	\$	4,270,111	\$	4,932,000	\$	5,076,000	\$	4,944,000	\$	4,873,617	\$	5,021,000	\$	5,174,000	\$	5,334,000
Target Ending Balance (90-days of O&M)	\$ 5,620,000	\$	4,793,000	\$	4,932,000	\$	5,076,000	\$	4,944,000	\$	4,874,000	\$	5,021,000	\$	5,174,000	\$	5,334,000
Capital Rehabilitation & Replacement Reserve																	
Beginning Reserve Balance (2)	\$ 22,653,280	\$	16,169,485	\$	7,283,528	\$	5,333,140	\$	5,401,325	\$	5,462,995	\$	5,265,100	\$	5,325,857	\$	5,369,613
Plus: Grant Proceeds	-		-		-		-		-		-		-		-		-
Plus: Transfer of Operating Reserve Surplus	-		-		36,840		155,025		258,695		-		60,757		43,755		2,129,029
Less: Use of Reserves for Capital Projects	(6,483,795)		(8,885,957)		(1,987,228)		(86,840)		(197,025)		(197,895)		-		-		-
Ending Capital Rehab & Replacement Reserve Balance	\$ 16,169,485	\$	7,283,528	\$	5,333,140	\$	5,401,325	\$	5,462,995	\$	5,265,100	\$	5,325,857	\$	5,369,613	\$	7,498,641
Target Ending Balance (3% of Assets) (3)	\$ 5,247,100	\$	5,348,300	\$	5,296,300	\$	5,246,300	\$	5,204,300	\$	5,265,100	\$	5,379,000	\$	5,440,700	\$	5,404,900
Ending Balance - Excludes Restricted Reserves	\$ 19,807,301	\$	11,553,639	\$	10,265,140	\$	10,477,325	\$	10,406,995	\$	10,138,717	\$	10,346,857	\$	10,543,613	\$	12,832,641
Minimum Target Ending Balance - Excludes Restricted Reser	\$ 10,867,100	\$	10,141,300	\$	10,228,300	\$	10,322,300	\$	10,148,300	\$	10,139,100	\$	10,400,000	\$	10,614,700	\$	10,738,900
Ending Surplus/(Deficit) Compared to Reserve Targets	\$ 8,940,201	\$	1,412,339	\$	36,840	\$	155,025	\$	258,695	\$	(383)	\$	(53,143)	\$	(71,087)	\$	2,093,741
Annual Interest Earnings Rate (4)	0.25%		0.50%		0.75%		1.00%		1.25%		1.50%		1.75%		2.00%		2.00%

⁽¹⁾ Total beginning cash balances for FY 2014/15 and 2015/16 were provided by District Staff on 2/8/2016 (File: Water cash balance 1-8-16.xlsx).

⁽²⁾ For purposes of this analysis, Unrestricted Cash (from file: Water cash balance 1-8-16.xlsx), net of Funds with Fiscal Agents is split between the Operating and Capital Reserves.

⁽³⁾ The Capital Rehabilitation & Replacement Reserve target is set to 3% of net assets. This is based on a net capital asset value of \$176.6 million, per District Staff, 8/3/2015 and the addition of planned assets in the District's CIP.

⁽⁴⁾ Historical interest earning rates were referenced on the CA Treasurer's Office website for funds invested in LAIF. Future years earnings were conservatively estimated through 2021 and phase into the historical 10 year average interest earning

Financial Plan and Reserve Projections

TABLE 3
RESERVE FUND SUMMARY, RESTRICTED RESERVES

SUMMARY OF CASH ACTIVITY, continued										Budget								
RESTRICTED WATER FUND RESERVES	F	Y 2015/16	F	Y 2016/17	F	Y 2017/18	F	Y 2018/19	F	FY 2019/20	F	Y 2020/21	F	Y 2021/22	F	Y 2022/23	F	Y 2023/24
Restricted Reserves:																		
Connection Fee & Alternate Water Source Reserve																		
Beginning Reserve Balance (1)	\$	5,227,435	\$	5,915,504	\$	6,624,131	\$	7,356,936	\$	8,117,729	\$	8,910,547	\$	9,735,551	\$	10,597,270	\$	11,500,562
Plus: Interest Earnings		13,069		29,578		49,681		73,569		101,472		133,658		170,372		211,945		230,011
Plus: Capacity Fee Revenue		675,000		679,050		683,124		687,223		691,346		691,346		691,346		691,346		691,346
Less: Use of Reserves for Capital Projects		-		-		-		-		-		-		-		-		-
Ending Connection Fee Fund Balance	\$	5,915,504	\$	6,624,131	55	7,356,936	\$	8,117,729	\$\$	8,910,547	\$\$	9,735,551	\$	10,597,270	\$	11,500,562	\$	12,421,919
Target Ending Balance	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Debt Reserve																		
Beginning Reserve Balance (2)	\$	1,949,500	\$	1,954,374	\$	1,964,146	\$	1,978,877	\$	1,998,665	\$	2,023,649	\$	2,054,004	\$	2,089,949	\$	2,131,748
Plus: Reserve Funding from New Debt Obligations		-		-		-		-		-		-		-		-		-
Plus: Interest Earnings		4,874		9,772		14,731		19,789		24,983		30,355		35,945		41,799		42,635
Less: Transfer of Surplus to Operating Reserve		-		-		-		-		-		-		-		-		-
Ending Debt Reserve Balance	\$	1,954,374	\$	1,964,146	\$	1,978,877	\$	1,998,665	\$	2,023,649	\$	2,054,004	\$	2,089,949	\$	2,131,748	\$	2,174,383
Target Ending Balance	\$	1,000,680	\$	999,945	\$	999,945	\$	999,945	\$	996,570	\$	996,570	\$	995,778	\$	993,763	\$	991,886
Reserve for Debt Service (Early Debt Payoff)																		
Beginning Reserve Balance (3)	\$	3,696,198	\$	3,705,438	\$	3,723,966	\$	3,751,895	\$	3,789,414	\$	3,836,782	\$	3,894,334	\$	3,962,485	\$	4,041,734
Plus: Reserve Funding from New Debt Obligations		-		-		-		-		-		-		-		-		-
Plus: Interest Earnings		9,240		18,527		27,930		37,519		47,368		57,552		68,151		79,250		80,835
Less: Transfer of Surplus to Operating Reserve		-		-		-		-		-		-		-		-		-
Ending Reserve for Debt Service Balance	\$	3,705,438	\$	3,723,966	\$	3,751,895	\$	3,789,414	\$	3,836,782	\$	3,894,334	\$	3,962,485	\$	4,041,734	\$	4,122,569
Target Ending Balance	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
OPEB Reserve Fund																		
Beginning Reserve Balance (4)	\$	-	\$	1,000,000	\$	2,005,000	\$	3,020,038	\$	4,050,238	\$	5,100,866	\$	5,177,379	\$	5,267,983	\$	5,373,343
Plus: Annual Contributions		1,000,000		1,000,000		1,000,000		1,000,000		1,000,000		-		-		-		-
Plus: Interest Earnings		-		5,000		15,038		30,200		50,628		76,513		90,604		105,360		107,467
Less: Use of Reserve		-		-		-		-		-		-		-		-		-
Ending OPEB Reserve Balance	\$	1,000,000	\$	2,005,000	\$	3,020,038	\$	4,050,238	\$	5,100,866	\$	5,177,379	\$	5,267,983		5,373,343	\$	5,480,809
Target Ending Balance (5)	\$	4,766,000	\$	4,766,000	\$	4,766,000	\$	4,766,000	\$	4,766,000	\$	4,766,000	\$	4,766,000	\$	4,766,000	\$	4,766,000
Ending Balance - Restricted Reserves	\$	12,575,316	\$	14,317,242	\$	16,107,746	\$	17,956,047	\$	19,871,844	\$	20,861,268	\$	21,917,686	\$	23,047,386		24,199,680
Minimum Target Ending Balance - Restricted Reserves	\$	5,766,680	\$	5,765,945	\$	5,765,945	\$	5,765,945	\$	5,762,570	\$	5,762,570	\$	5,761,778	\$	5,759,763	\$	5,757,886
Ending Surplus/(Deficit) Compared to Reserve Targets	\$	6,808,636	\$	8,551,297	\$	10,341,801	\$, , .	\$	14,109,274	\$	15,098,698	\$	16,155,909	\$	17,287,624	\$	18,441,794
Annual Interest Earnings Rate (6)		0.25%		0.50%		0.75%		1.00%		1.25%		1.50%		1.75%		2.00%		2.00%

⁽¹⁾ The beginning cash balance is the 2015 actual balance in the Connection Fee Fund, from the source file: Water cash balance 1-8-16.xlsx.

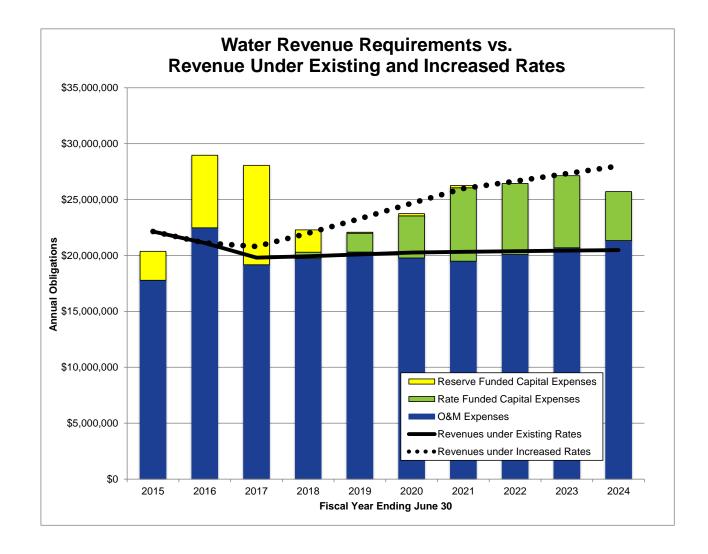
⁽²⁾ Beginning debt reserve balance is the "Fund with Fiscal Agents", per cash balances as of 1/8/2016.

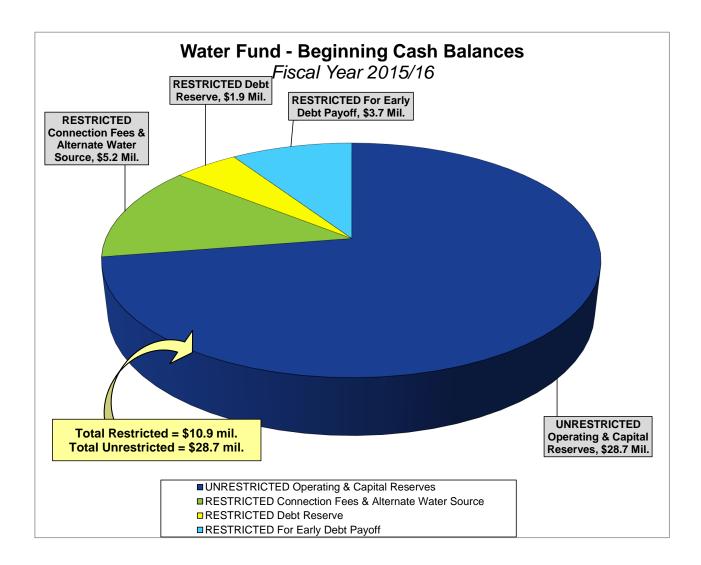
⁽³⁾ Beginning Reserve for Debt Service balance is the "Reserved for Debt Service", per cash balances as of 1/8/2016. These funds will tentatively be used to pay off the 1998 COP's early.

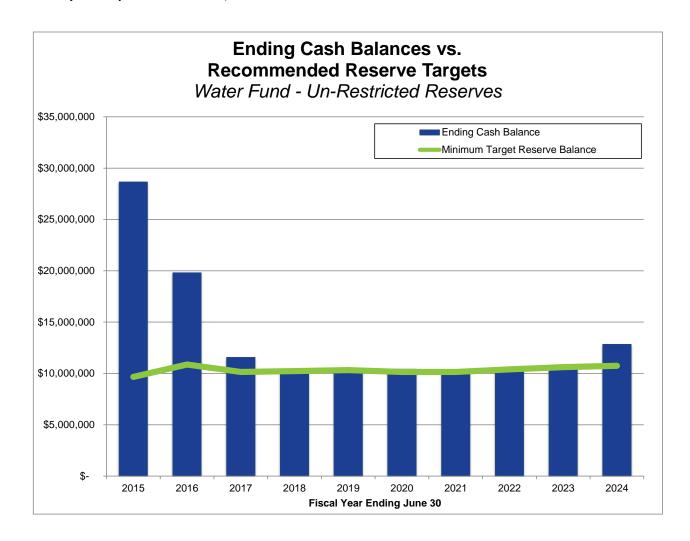
⁽⁴⁾ Total beginning OPEB reserve cash balance is per source file: Water cash balance 1-8-16.xlsx.

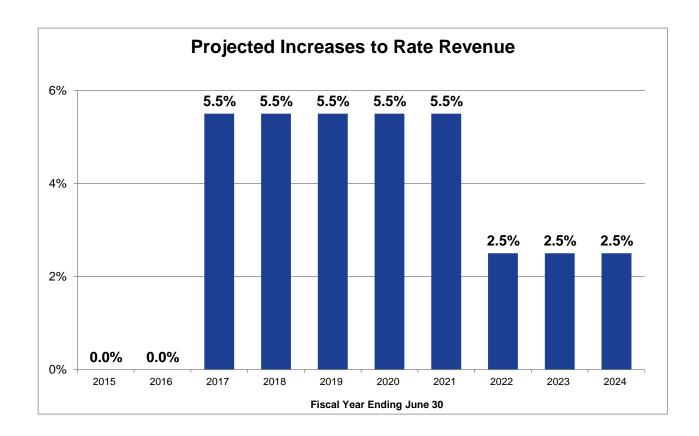
⁽⁵⁾ The target ending balance for the OPEB reserve is set to the funding target of \$4.76 million, per Finance Department Staff.

⁽⁶⁾ Historical interest earning rates were referenced on the CA Treasurer's Office website for funds invested in LAIF. Future years earnings were conservatively estimated through 2021 and phase into the historical 10 year average interest earnings rate.









REVENUE FORECAST (1,2)

ORG.	OBJECT	DESCRIPTION	CPI		2015		2016		2017		2018	2019	2020		2021		2022		2023		2024
Water Sale	es Revenu	e:																			
4100010	44830	Water Sales-Residential (3)	1	\$ 9	,740,661	\$ 7	7,897,500	\$ 7	,944,885	\$	7,992,554	\$ 8,040,510	\$ 8,088,753	\$	8,088,753	\$	8,088,753	\$	8,088,753	\$	8,088,753
4100010	44840	Water Sales-Other (3)	1	\$	771,476	\$	699,000	\$	703,194	\$	707,413	\$ 711,658	\$ 715,928	\$	715,928	\$	715,928	\$	715,928	\$	715,928
4100010	44850	Water Sales-Business (3)	1	\$ 1	,864,886	\$ 1	1,414,300	\$ 1	,422,786	\$	1,431,323	\$ 1,439,910	\$ 1,448,550	\$	1,448,550	\$	1,448,550	\$	1,448,550	\$	1,448,550
Readiness	to Serve	Revenue:																			
4100010	44860	Water Service Availability (3)	1	\$ 8	,227,759	\$ 7	7,934,000	\$ 7	,981,604	\$	8,029,494	\$ 8,077,671	\$ 8,126,137	\$	8,126,137	\$	8,126,137	\$	8,126,137	\$	8,126,137
4100010	44880	Fire Service availability	1	\$	67,740	\$	70,000	\$	70,420	\$	70,843	\$ 71,268	\$ 71,695	\$	71,695	\$	71,695	\$	71,695	\$	71,695
Other Rev	enue:																				
4100010	41280	Water Permit	1	\$	17,802	\$	20,400	\$	20,800	\$	21,200	\$ 21,600	\$ 22,000	\$	22,400	\$	22,800	\$	23,300	\$	23,800
4100010	42150	Penalty/Late Fees	1	\$	324,690	\$	341,700	\$	348,500		355,500	\$ 362,600	 369,900	\$	377,300	\$	384,800		392,500		400,400
4100010	44300	Plan Check Fees	1	\$	9,955	\$	25,500	\$	26,000	\$	26,500	\$ 27,000	\$ 27,500	\$	28,100	\$	28,700	\$	29,300	\$	29,900
4100010	44890	Water Service Fees	1	\$	472,548	\$	612,000	\$	624,200		636,700	\$ 649,400	\$ 662,400	\$	675,600	\$	689,100	\$	702,900		717,000
4100010	44900	Meter Installation Fees	1	\$	47,663	\$	56,100	\$	57,200		58,300	\$ 59,500	 60,700	\$	61,900		63,100	\$	64,400		65,700
4100010	44910	Service Call Fees	1	\$	354,335	\$	408,000	\$	416,200		424,500	\$ 433,000	\$ 441,700	\$	450,500	\$	459,500	\$	468,700	\$	478,100
4100010	44940	Standby Fees	1	\$	92,625	\$	91,800	\$	93,600	\$	95,500	\$ 97,400	\$ 99,300	\$	101,300	\$	103,300	\$	105,400	\$	107,500
4100010	47230	Reimb-Other (4)	1	\$	-	\$	-	\$	-	\$	-	\$ -	\$ -	\$	-	\$	-	\$	-	\$	-
4100020	44920	Connection Fees	1	\$	406,753	\$	500,000	\$	503,000	\$	506,018	\$ 509,054	\$ 512,108	\$	512,108	\$	512,108	\$	512,108	\$	512,108
4100020	44930	WATER SOURCE FEES	1	\$	145,948	\$	175,000	\$	176,050	\$	177,106	\$ 178,169	\$ 179,238	\$	179,238	\$	179,238	\$	179,238	\$	179,238
4100020	47100	PASS THROUGH (5)	1	\$	-	\$	-	\$	-	\$	-	\$ -	\$ -	\$	-	\$	-	\$	-	\$	-
4100020	47400	MISCELLANEOUS REVENUE		\$	83,995			\$	-	\$	-	\$ -	\$ -	\$	-	\$	-	\$	-	\$	-
4100020	45110	INTEREST INCOME (6)	See FP	\$	57,707	\$	35,000	\$	-	\$	-	\$ -	\$ -	\$	-	\$	-	\$	-	\$	-
4100010	45100	INTEREST INCOME (6)	See FP	\$	10,041	\$	-	\$	-	\$	-	\$ -	\$ -	\$	-	\$	-	\$	-	\$	-
		Revenue from Property Sale (7)	14	\$	-	_	1,512,270	\$	-	\$	-	\$ -	\$ -	\$	-	\$	-	\$	-	\$	-
TOTAL:	REVENUE			\$ 22	,696,585	\$ 21	1,792,570	\$ 20	,388,439	\$ 2	20,532,950	\$ 20,678,739	\$ 20,825,908	\$2	0,859,508	\$ 2	20,893,708	\$ 2	0,928,908	\$ 2	20,964,808

0.81	Adj. Factor for Volumetric Rate Revenue Reduction
-13%	Overall Reduction in Rate Revenue from 2015 to 2016 Due to 28% Conservation Mandate

REVENUE SUMMARY:

RATE REVENUE:										
WATER SALES RATE REVENUE (Variable Charges)	\$12,377,024	\$10,010,800	\$10,070,865	\$10,131,290	\$10,192,078	\$10,253,230	\$10,253,230	\$10,253,230	\$10,253,230	\$10,253,230
READINESS TO SERVE (Fixed Charges)	\$ 8,295,499	\$ 8,004,000	\$ 8,052,024	\$ 8,100,336	\$ 8,148,938	\$ 8,197,832	\$ 8,197,832	\$ 8,197,832	\$ 8,197,832	\$ 8,197,832
OTHER REVENUE:										
CONNECTION & ALTERNATE WATER SOURCE FEES	\$ 552,701	\$ 675,000	\$ 679,050	\$ 683,124	\$ 687,223	\$ 691,346	\$ 691,346	\$ 691,346	\$ 691,346	\$ 691,346
INTEREST INCOME	\$ 67,748	\$ 35,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
ALL OTHER OPERATING REVENUE	\$ 1,403,613	\$ 3,067,770	\$ 1,586,500	\$ 1,618,200	\$ 1,650,500	\$ 1,683,500	\$ 1,717,100	\$ 1,751,300	\$ 1,786,500	\$ 1,822,400
TOTAL REVENUE	\$ 22,696,585	\$21,792,570	\$20,388,439	\$ 20,532,950	\$20,678,739	\$ 20,825,908	\$ 20,859,508	\$20,893,708	\$20,928,908	\$ 20,964,808

OPERATING EXPENSE FORECAST (1,2):

OPERATING		, . ,			1			_												
		DESCRIPTION	CPI	2015		2016	2017		2018	2019		2020		2021		2022		2023		2024
WATER PU			_		_			_							_				•	
4100500		Purchased Water (8,12)	7	\$ 516,414	\$	996,600	\$ 283,300	\$	301,715		\$	342,212	\$	364,456	\$	388,146	\$	413,375	\$	440,244
4100500	53040	Groundwater Assessment (9,12)	10	\$ 105,075		105,900	\$ 76,100	\$	77,622		\$	80,758	\$	82,373	\$	84,021	\$	85,701	\$	87,415
4100500		Groundwater Replenishment (10,12)	8	\$ 2,872,137			\$ 771,500		833,220					1,049,617		1,133,587				1,322,215
		AL: WATER PURCHASES	1	\$ 3,493,626	\$ 5	,141,200	\$ 1,130,900	\$	1,212,557	\$ 1,300,378	\$	1,394,838	\$	1,496,446	\$	1,605,753	\$	1,723,350	\$	1,849,875
MAKEUP O															١.					
		Makeup Obligation (11,12)	9	\$ 285,400		308,300			163,620			190,846	\$	206,114	\$	222,603	_	240,411	\$	259,644
		AL: MAKEUP OBLIGATION	1	\$ 285,400	\$	308,300	\$ 151,500	\$	163,620	\$ 176,710	\$	190,846	\$	206,114	\$	222,603	\$	240,411	\$	259,644
PRODUCTION																				
4100500		Utilities-Production Power (12)	6	\$ 2,099,569						\$ 2,174,707						2,531,909				
		AL: PRODUCTION POWER		\$ 2,099,569	\$ 1	,867,900	\$ 1,965,031	\$	2,067,212	\$ 2,174,707	\$	2,287,792	\$	2,406,757	\$	2,531,909	\$	2,663,568	\$	2,802,074
SUPPLY SE																				
4100500		Full Time Wages	3	\$ 748,971			\$ 1,039,063		1,059,845		\$			1,124,716		1,147,210		1,170,154	\$	1,193,557
4100500		Overtime Wages	4	\$ 48,806	\$	78,028	\$ 79,589	\$	81,180		\$,	\$	86,149	\$	87,872	\$	89,630	\$	91,422
4100500	51200	Fringe Benefits	4	\$ 319,941	\$	366,306	\$ 373,632	\$	381,105	\$ 388,727	\$	396,501	\$	404,431	\$	412,520	\$	420,770		429,186
4100500	51300	Payroll Taxes	3	\$ 11,148	\$	24,087	\$ 26,496	\$	27,026	\$ 27,566	\$	28,117	\$	28,680	\$	29,253	\$	29,838	\$	30,435
4100500	52060	Telephone	2	\$ 8,117	\$	11,000	\$ 11,220	\$	11,444	\$ 11,673	\$	11,907	\$	12,145	\$	12,388	\$	12,636	\$	12,888
4100500	52110	Supplies	2	\$ 9,599	\$	16,300	\$ 16,626	\$	16,959	\$ 17,298	\$	17,644	\$	17,997	\$	18,356	\$	18,724	\$	19,098
4100500	52140	Training & Education	2	\$ 5,794	\$	7,700	\$ 7,854	\$	8,011	\$ 8,171	\$	8,335	\$	8,501	\$	8,671	\$	8,845	\$	9,022
4100500	52201	Fuel	5	\$ 41,927	\$	52,000	\$ 56,680	\$	61,781	\$ 67,342	\$	73,402	\$	80,008	\$	87,209	\$	95,058	\$	103,613
4100500	52230	Vehicle Expense	12	\$ 47,318	\$	30,000	\$ 31,200	\$	32,448	\$ 33,746	\$	35,096	\$	36,500	\$	37,960	\$	39,478	\$	41,057
4100500	52240	Furniture & Small Tools <\$5000	2	\$ 7,367	\$	10,000	\$ 10,200	\$	10,404	\$ 10,612	\$	10,824	\$	11,041	\$	11,262	\$	11,487	\$	11,717
4100500	52260	Computer Related Equip <\$5000	2	\$ -	\$	-	\$ -	\$	-	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-
4100500	52300	Contract Services	2	\$ 193,220	\$	600,000	\$ 612,000	\$	624,240	\$ 636,725	\$	649,459	\$	662,448	\$	675,697	\$	689,211	\$	702,996
4100500	52420	Grounds Maintenance	2	\$ 52,569	\$	53,000	\$ 54,060	\$	55,141	\$ 56,244	\$	57,369	\$	58,516	\$	59,687	\$	60,880	\$	62,098
4100500	52440	Infrastructure Repairs	2	\$ 56,708	\$	130,000	\$ 132,600	\$	135,252	\$ 137,957	\$	140,716	\$	143,531	\$	146,401	\$	149,329	\$	152,316
	SUBTOTA	AL: SUPPLY SERVICES	•	\$ 1,551,484	\$ 2	,323,024	\$ 2,451,220	\$	2,504,836	\$ 2,559,906	\$	2,616,493	\$	2,674,663	\$	2,734,487	\$	2,796,040	\$	2,859,405
SCADA SEI	RVICES																			
4100505	51100	Full Time Wages	3	\$ 68,731	\$	132,310	\$ 145,541	\$	148,452	\$ 151,421	\$	154,449	\$	157,538	\$	160,689	\$	163,903	\$	167,181
4100505	51110	Overtime Wages	4	\$ 5,509	\$	2,125	\$ 2,168	\$	2,211	\$ 2,255	\$	2,300	\$	2,346	\$	2,393	\$	2,441	\$	2,490
4100505	51200	Fringe Benefits	4	\$ 22,393	\$	40,125	\$ 40,928	\$	41,746	\$ 42,581	\$	43,433	\$	44,301	\$	45,187	\$	46,091	\$	47,013
4100505	51220	Retiree Expense	4	\$ (507)	\$	-	\$ -	\$	-	\$ -	\$	-	\$	-	\$	· -	\$	-	\$	-
4100505	51300	Payroll Taxes	3	\$ 1,129	\$	3,374	\$ 3,711	\$	3,786	\$ 3,861	\$	3,939	\$	4,017	\$	4,098	\$	4,180	\$	4,263
4100505	52060	Telephone	2	\$ -	\$	· <u>-</u>	\$ -	\$	-	\$ -	\$	-	\$		\$	-	\$	-	\$	-
4100505	52110	Supplies	2	\$ 3,677	\$	3,000	\$ 3,060	\$	3,121	\$ 3,184	\$	3,247	\$	3,312	\$	3,378	\$	3,446	\$	3,515
4100505	52130	Subs, Publications & Memberships	2	\$ 13,000	\$	18,500	\$ 18,870	\$	· · · · · ·	\$ 19,632	\$	20,025	\$	20,425	\$	20,834	\$		\$	21,676
4100505		Training & Education	2	\$ 3,929	\$	6,000	\$ 6,120	\$		\$ 6,367	\$	6,495	\$	6,624	\$	6,757			\$	7,030
4100505	52201	Fuel	5	\$ 2,563	\$	5,000	\$ 5,450	\$	· · · · · ·		\$	7,058	\$	7,693	\$	8,386		9,140		9,963
4100505		Vehicle Expense	12	\$ 35	\$	2,000	\$ 2,080	\$		\$ 2,250	\$	2,340	\$	2,433	\$	2,531			\$	2,737
4100505	52240	Furniture & Small Tools <\$5000	2	\$ 11.147	\$	15.000	\$ 15,300	\$,		\$	16,236	\$	16,561	\$	16,892		17,230		17,575
4100505	52300	Contract Services	2	\$ 14,966	\$	6,000	\$ 6,120	\$	6,242	\$ 6,367	\$	6,495	\$	6,624	\$	6,757		6,892	\$	7,030
4100505		Infrastructure Repairs	2	\$ 76.252	\$	69,500	\$ 70,890	\$,	\$ 73,754	\$	75,229	\$	76,734	\$	78,268		79,834	\$	81,430
		AL: SCADA SERVICES	-	\$ 222.823	ě	302.934	\$ 320,237	¢	327,065		ě	341.245	Ť	348,611	\$	356,170		363,931	\$	371,902

OPERATING EXPENSE FORECAST, continued (1,2):

	OBJECT DESCRIPTION	CPI	2015	2016	201	7	2018	2019	9	2020	2021		2022	2023	;	2024
QUALITY SI											-				Ì	
4100515	51100 Full Time Wages	3	\$ 57,235	\$ 61,059	\$ 67,165	5 \$	68,508	\$ 69,878	\$ \$	71,276	\$ 72,701	\$ 74	155	\$ 75,639	\$	77,151
4100515	51110 Overtime Wages	4	\$ 604	\$ 6,542	\$ 6,673	3 \$	6,806	\$ 6,942	\$	7,081	\$ 7,223	\$ 7	367	\$ 7,515	\$	7,665
4100515	51200 Fringe Benefits	4	\$ 25,191	\$ 23,740	\$ 24,215	5 \$	24,699	\$ 25,193	\$ \$	25,697	\$ 26,211	\$ 26	735	\$ 27,270	\$	27,815
4100515	51300 Payroll Taxes	3	\$ 730	\$ 1,557	\$ 1,713	3 \$	1,747	\$ 1,782	\$	1,818	\$ 1,854	\$ 1	891	\$ 1,929	\$	1,967
4100515	52060 Telephone	2	\$ -	\$ -	\$ -	\$	-	\$ -	\$	-	\$ -	\$	-	\$ -	\$	- '
4100515	52110 Supplies (12)	2	\$ 111,161	\$ 144,000	\$ 146,880	\$	149,818	\$ 152,814	\$	155,870	\$ 158,988	\$ 162	167	\$ 165,411	\$	168,719
4100515	52140 Training & Education	2	\$ 589	\$ 500	\$ 510	\$	520	\$ 531	\$	5 541	\$ 552	\$	563	\$ 574	\$	586
4100515	52201 Fuel	5	\$ 2,626	\$ 3,700	\$ 4,033	\$	4,396	\$ 4,792	\$	5,223	\$ 5,693	\$ 6	205	\$ 6,764	\$	7,372
4100515	52230 Vehicle Expense	12	\$ 2,574	\$ 2,300	\$ 2,392	2 \$	2,488	\$ 2,587	\$	2,691	\$ 2,798	\$ 2	910	\$ 3,027	\$	3,148
4100515	52240 Furniture & Small Tools <\$5000	2	\$ 417	\$ 500	\$ 510	\$	520	\$ 531	\$	541	\$ 552	\$	563	\$ 574	\$	586
4100515	52300 Contract Services	2	\$ 72,497	\$ 191,000	\$ 194,820		198,716	\$ 202,691	\$	206,745	\$ 210,879	\$ 215	097	\$ 219,399	\$	223,787
4100515	52360 Federal, State & Local Fees	2	\$ 29,263	\$ 22,000	\$ 22,440	\$	22,889	\$ 23,347	\$	23,814	\$ 24,290	\$ 24	776	\$ 25,271	\$	25,777
4100515	52440 Infrastructure Repairs	2	\$ 27,898	\$ 20,000	\$ 20,400		20,808	\$ 21,224		, , , , ,	\$ 22,082		523	\$ 22,974	\$	23,433
	SUBTOTAL: QUALITY SERVICES		\$ 330,785	\$ 476,898	\$ 491,750	\$	501,915	\$ 512,311	\$	522,945	\$ 533,823	\$ 544	954	\$ 556,345	\$	568,006
FIELD SERV																ļ
4100535	51100 Full Time Wages	3	\$ 917,826	\$ 1,057,448	\$ 1,163,193		1,186,457	\$ 1,210,186			\$ 1,259,077	\$ 1,284		\$ 1,309,944	\$	
4100535	51110 Overtime Wages	4	\$ 91,512	\$ 94,543	\$ 96,434		98,363	\$ 100,330	\$	102,336	\$ 104,383	\$ 106	471	\$ 108,600	\$	110,772
4100535	51120 Part Time Wages	4	\$ -	\$ -	\$ -	\$	-	\$ -	\$	-	\$ -	\$	-	\$ -	\$	-
4100535	51200 Fringe Benefits	4	\$ 427,170	\$ 434,457	\$ 443,146		452,009	\$ 461,049			\$ 479,676	\$ 489		\$ 499,055		509,036
4100535	51300 Payroll Taxes	3	\$ 14,168	\$ 26,965	\$ 29,662		30,255	\$ 30,860		- ,	\$ 32,107		749	\$ 33,404	\$	34,072
4100535	52060 Telephone	2	\$ 2,358	\$ 6,300	\$ 6,426		6,555	\$ 6,686		- ,	\$ 6,956		095	\$ 7,237	\$	7,381
4100535	52110 Supplies	2	\$ 12,265	\$ 16,000	\$ 16,320		16,646	\$ 16,979		,	\$ 17,665		019	\$ 18,379	\$	18,747
4100535	52140 Training & Education	2	\$ 4,378	\$ 4,000	\$ 4,080		4,162	\$ 4,245		,	\$ 4,416	1 '	505	\$ 4,595	\$	4,687
4100535	52201 Fuel	5	\$ 51,325	\$ 68,000	\$ 74,120		80,791	\$ 88,062			\$ 104,626		043	\$ 124,307	\$	135,494
4100535	52220 Equipment	2	\$ 45,311	\$ 56,000	\$ 57,120		58,262	\$ 59,428		60,616	\$ 61,829		065	\$ 64,326	\$	65,613
4100535	52230 Vehicle Expense	12	\$ 25,750	\$ 61,100	\$ 63,544		66,086	\$ 68,729		,	\$ 74,337		311	\$ 80,403		83,620
4100535	52240 Furniture & Small Tools <\$5000	2	\$ 8,824	\$ 25,000	\$ 25,500		26,010	\$ 26,530	\$	27,061	\$ 27,602	\$ 28	154	\$ 28,717	\$	29,291
4100535	52260 Computer Related Equip < \$5000	2	\$ -	\$ -	\$ -	\$	-	\$ -	. \$	-	\$ -	\$	-	\$ -	\$	-
4100535	52300 Contract Services	2	\$ 7,774	\$ 14,000	\$ 14,280		14,566	\$ 14,857			\$ 15,457		766	\$ 16,082	\$	16,403
4100535	52440 Infrastructure Repairs	2	\$ 390,570	\$ 395,000	\$ 402,900		410,958	\$ 419,177			\$ 436,112	\$ 444		\$ 453,731	\$	462,805
	SUBTOTAL: FIELD SERVICES ING SERVICES	1	\$ 1,999,231	\$ 2,258,813	\$ 2,396,724	\$	2,451,118	\$ 2,507,117	*	2,564,799	\$ 2,624,243	\$ 2,685	539	\$ 2,748,779	\$	2,814,064
4104500		3	\$ 507,121	¢ 590.003	\$ 638,003	3 \$	650.762	\$ 663,779) s	677,054	\$ 690.595	\$ 704	407	\$ 718.495	•	732,865
4104500	51100 Full Time Wages 51110 Overtime Wages	3 4	\$ 507,121	\$ 580,003 \$ 22,807	\$ 638,003 \$ 23,263		650,763 23,728	\$ 663,779			\$ 690,595 \$ 25,181		407 684	\$ 718,495 \$ 26,198	\$ \$	
4104500	51110 Overtime wages 51200 Fringe Benefits	4	\$ - \$ 197,005	\$ 22,807 \$ 181,913	\$ 23,263 \$ 185,551		23,728 189,262	\$ 24,203 \$ 193,048			\$ 25,181	\$ 25		\$ 26,198	\$	
4104500	51300 Payroll Taxes	3	\$ 197,005	\$ 161,913	\$ 165,551		16,594	\$ 193,048			\$ 200,847		962	\$ 208,961		
4104500	51300 Payroll Taxes 52110 Supplies	3	\$ 7,026 \$ 6,234	\$ 14,790 \$ 6.000	\$ 16,269		6,242	\$ 16,926			\$ 17,610		962 757	\$ 18,322 \$ 6,892		7,030
4104500	52110 Supplies 52140 Training & Education	2	\$ 6,234	\$ 6,000	\$ 0,120		1,040	\$ 0,367		-,	\$ 0,024		126	\$ 0,892		1,172
4104500	52140 Training & Education 52201 Fuel	5	\$ 2,837	\$ 1,000	\$ 1,020		1,040	\$ 13,598			\$ 16,156	1 '	610	\$ 1,149	\$	
4104500	52201 Fuel 52230 Vehicle Expense	12	\$ 2,837 \$ 565	\$ 10,500	\$ 5,200		5,408	\$ 13,596			\$ 6,083		327	\$ 6,580	\$	6,843
4104500	52240 Furniture & Small Tools <\$5000	2	\$ 448	\$ 5,000	\$ 5,200		520	\$ 5,624			\$ 552	¢ 0	563	\$ 574	\$	586
4104500	52300 Contract Services	2	\$ 29,138	\$ 72,000	\$ 73,440		74,909	\$ 76,407		77,935	\$ 79,494	ψ ¢ Ω1	084	\$ 82,705	\$	84,359
4104500	52440 Infrastructure Repairs	2	\$ 29,130	\$ 12,000	\$ 10,200		10,404	\$ 10,407			\$ 19,494		262	\$ 11,487	\$	
	SUBTOTAL: ENGINEERING SERVICES		\$ 750.804	\$ 904.513	\$ 971.022		991.347	\$ 1,012,156		1,033,463	\$ 1.055.287	\$ 1.077		\$ 1,100,557	\$	

OPERATING EXPENSE FORECAST, continued (1,2):

ORG.	OBJECT	DESCRIPTION	CPI		2015	201	6	2017	2018	2019	2020	2021	2022	2023	2024
ENVIRONM	ENTAL P	ROGRAMS													
4100525	51100	Full Time Wages	3	\$ 1	196,635	\$ 242,283	\$	266,511	\$ 271,842	\$ 277,278	\$ 282,824	\$ 288,480	\$ 294,250	\$ 300,135	\$ 306,138
4100525	51110	Overtime Wages	4	\$	-	\$ 3,827	\$	3,904	\$ 3,982	\$ 4,061	\$ 4,142	\$ 4,225	\$ 4,310	\$ 4,396	\$ 4,484
4100525	51200	Fringe Benefits	4	\$	78,793	\$ 84,697	\$	86,391	\$ 88,119	\$ 89,881	\$ 91,679	\$ 93,512	\$ 95,383	\$ 97,290	\$ 99,236
4100525	51300	Payroll Taxes	3	\$	5,929	\$ 6,178	\$	6,796	\$ 6,932	\$ 7,070	\$ 7,212	\$ 7,356	\$ 7,503	\$ 7,653	\$ 7,806
4100525	52010	Utilities-Electricity	6	\$	2,025	\$ 2,225	\$	2,341	\$ 2,462	\$ 2,590	\$ 2,725	\$ 2,867	\$ 3,016	\$ 3,173	\$ 3,338
4100525	52020	Utilities-Water Usage	13	\$	122	\$ 135	\$	143	\$ 152	\$ 161	\$ 170	\$ 181	\$ 192	\$ 203	\$ 215
4100525	52030	Utilities-Natural Gas	13	\$	149	\$ 198	\$	207	\$ 219	\$ 232	\$ 246	\$ 261	\$ 277	\$ 293	\$ 311
4100525	52060	Telephone	2	\$	362	\$ 400	\$	408	\$ 416	\$ 424	\$ 433	\$ 442	\$ 450	\$ 459	\$ 469
4100525	52110	Supplies	2	\$	7,142	\$ 4,600	\$	4,692	\$ 4,786	\$ 4,882	\$ 4,979	\$ 5,079	\$ 5,180	\$ 5,284	\$ 5,390
4100525	52140	Training & Education	2	\$	130	\$ 1,200	\$	1,224	\$ 1,248	\$ 1,273	\$ 1,299	\$ 1,325	\$ 1,351	\$ 1,378	\$ 1,406
4100525	52160	Conservation Programs	2	\$	44,714	\$ 43,670	\$	44,543	\$ 45,434	\$ 46,343	\$ 47,270	\$ 48,215	\$ 49,180	\$ 50,163	\$ 51,166
4100525	52201	Fuel	5	\$	2,906	\$ 3,000	\$	3,270	\$ 3,564	\$ 3,885	\$ 4,235	\$ 4,616	\$ 5,031	\$ 5,484	\$ 5,978
4100525	52230	Vehicle Expense	12	\$	875	\$ 2,700	\$	2,808	\$ 2,920	\$ 3,037	\$ 3,159	\$ 3,285	\$ 3,416	\$ 3,553	\$ 3,695
4100525	52240	Furniture & Small Tools <\$5000	2	\$	177	\$ 500	\$	510	\$ 520	\$ 531	\$ 541	\$ 552	\$ 563	\$ 574	\$ 586
4100525	52260	Computer Related Equip < \$5000	2	\$	1,862	\$ 3,600	\$	3,672	\$ 3,745	\$ 3,820	\$ 3,897	\$ 3,975	\$ 4,054	\$ 4,135	\$ 4,218
4100525	52300	Contract Services	2	\$	4,720	\$ 3,150	\$	3,213	\$ 3,277	\$ 3,343	\$ 3,410	\$ 3,478	\$ 3,547	\$ 3,618	\$ 3,691
		AL: ENVIRONMENTAL PROGRAMS		\$ 3	346,541	\$ 402,360	\$	430,632	\$ 439,619	\$ 448,813	\$ 458,221	\$ 467,848	\$ 477,704	\$ 487,793	\$ 498,126
CUSTOME	R SERVIC	ES													ļ
4100545	51100	Full Time Wages	3	\$ 1,0	004,243	\$ 1,032,667	\$	1,135,927	\$ 1,158,646	\$ 1,181,819	\$ 1,205,455	\$ 1,229,564	\$ 1,254,155	\$ 1,279,238	\$ 1,304,823
4100545	51110	Overtime Wages	4	\$	7	\$ -	\$	-	\$ -						
4100545	51120	Part Time Wages	4	\$	906	\$ -	\$		\$ -						
4100545	51200	Fringe Benefits	4	\$ 4	467,287	\$ 355,952		, -	\$ 370,332	\$,	\$,	\$ /	\$ 400,860	\$ 408,877	\$ 417,054
4100545	51300	Payroll Taxes	3	\$	18,550	\$ 26,333		,	\$ 29,546	\$ 30,137	\$,	\$ 31,354	\$ 31,981	\$ 32,621	\$ 33,273
4100545	52010	Utilities-Electricity	6	\$	11,244	\$ 12,326	\$	12,967	\$ 13,641	\$ 14,351	\$ 15,097	\$ 15,882	\$ 16,708	\$ 17,576	\$ 18,490
4100545	52020	Utilities-Water Usage	13	\$	672	\$ 746		791	\$ 838	\$ 888	\$ 942	\$ 998	\$ 1,058	\$ 1,122	\$ 1,189
4100545	52030	Utilities-Natural Gas	13	\$	828	\$ 1,080		, -	\$ 1,213	\$ 1,286	\$,	\$ 1,445	\$ 1,532	\$ 1,624	\$ 1,721
4100545	52060	Telephone	2	\$	140	\$ 300			\$ 312	\$ 318	\$ 325	\$ 331	\$ 	\$ 345	\$ 351
4100545	52110	Supplies	2		140,267	\$ 141,782		,	\$ 147,510	150,460	\$,	\$ 156,539	\$,	\$ - ,	\$ 166,120
4100545	52140	Training & Education	2	\$	1,243	\$ 7,788		, -	\$ 8,103	8,265	\$ -,	\$ 8,599	\$ 8,771	\$ 8,946	\$ 9,125
4100545	52150	Travel & Meetings	2	\$	134	\$ 5,250		5,355	\$ 5,462	\$ 5,571	\$ -,	\$ 5,796	\$ 5,912	\$ 6,031	\$ 6,151
4100545	52240	Furniture & Small Tools <\$5000	2	\$	-	\$ 2,400		, -	\$ 2,497	\$ 2,547	\$,	\$ 2,650	\$ 2,703	\$ 2,757	\$ 2,812
4100545	52300	Contract Services	2	\$ 2	293,665	\$ 317,623	\$	323,975	\$ 330,455	\$ 337,064	\$ 343,805	\$ 350,681	\$ 357,695	\$ 364,849	\$ 372,146
4100545	52350	Cust-Legal	2	\$	56	\$ -	\$	-	\$ -						
4100545	52360	Federal, State & Local Fees	2	\$	4,306	\$ 8,000	\$	8,160	\$ 8,323	\$ 8,490	\$ 8,659	\$ 8,833	\$ 9,009	\$ 9,189	\$ 9,373
4100545	52410	Building Maintenance	2	\$	288	\$ -	\$	-	\$ -						
4100545	54050	Uncollectable Write-Offs (12)	1	\$ 1	147,127	\$ 88,200	\$	88,729	\$ 89,262	\$ 89,797	\$ 90,336	\$ 90,336	\$ 90,336	\$ 90,336	\$ 90,336
	SUBTOT	AL: CUSTOMER SERVICES		\$ 2.0	090.964	\$ 2,000,44	\$	2.124.402	\$ 2,166,140	\$ 2.208.732	\$ 2,252,196	\$ 2,296,008	\$ 2,340,728	\$ 2.386.374	\$ 2.432.967

OPERATING EXPENSE FORECAST, continued (1,2):

		SE FORECAST, continued (1,2):																			
		DESCRIPTION	CPI	2015	201	16	2017		2018		2019		2020		2021		2022		2023		2024
METER SE																					
4100530	51100	Full Time Wages	3	\$ 476,502	\$ 530,08		,	\$	594,758	\$		\$	618,786	\$	631,162	\$	643,785	\$	656,660	\$	669,794
4100530	51110	Overtime Wages	4	\$ 17,086	\$ 76,14		,	\$	79,217	\$	80,801	\$	82,417	\$	84,066	\$	85,747	\$	87,462	\$	89,211
4100530	51120	Part Time Wages	4	\$ -	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
4100530	51200	Fringe Benefits	4	\$ 220,278	\$ 208,87	7 \$	213,055	\$	217,316	\$	221,662	\$	226,095	\$	230,617	\$	235,229	\$	239,934	\$	244,733
4100530	51300	Payroll Taxes	3	\$ 9,415	\$ 13,51	7 \$	14,869	\$	15,166	\$	15,469	\$	15,779	\$	16,094	\$	16,416	\$	16,745	\$	17,079
4100530	52060	Telephone	2	\$ 2,888	\$ 2,40	0 \$	2,448	\$	2,497	\$	2,547	\$	2,598	\$	2,650	\$	2,703	\$	2,757	\$	2,812
4100530	52110	Supplies	2	\$ 3,646	\$ 4,00	0 \$	4,080	\$	4,162	\$	4,245	\$	4,330	\$	4,416	\$	4,505	\$	4,595	\$	4,687
4100530	52140	Training & Education	2	\$ 505	\$ 2,00	0 \$	2,040	\$	2,081	\$	2,122	\$	2,165	\$	2,208	\$	2,252	\$	2,297	\$	2,343
4100530	52201	Fuel	5	\$ 37,106	\$ 41,10	0 \$	44,799	\$	48,831	\$	53,226	\$	58,016	\$	63,237	\$	68,929	\$	75,132	\$	81,894
4100530	52220	Equipment	2	\$ 4,906	\$ -	\$		\$	-	\$	-	\$	-	\$	· -	\$	-	\$	-	\$	-
4100530	52230	Vehicle Expense	12	\$ 21,530	\$ 28.00	0 \$	29,120	\$	30,285	\$	31,496	\$	32,756	\$	34,066	\$	35,429	\$	36,846	\$	38,320
4100530	52240	Furniture & Small Tools <\$5000	2	\$ 733	\$ 15,00		,	\$	15,606	\$		\$	16,236	\$	16,561	\$	16,892	\$	17,230	\$	17,575
4100530	52300	Contract Services	2	\$ 6,937	\$ 10,00		,	\$	10,404	\$,	\$	10,824	\$	11,041		11,262	\$,	\$	11,717
4100530	52440	Infrastructure Repairs	2	\$ 33.200	\$ 35.00			\$	36,414	\$	37,142	\$	37.885	\$	38,643	\$	39,416	\$	40.204	\$	41.008
4100530	52445	Meter Service Installations	2	\$ 8,364	\$ 31,00		,	\$	32,252	\$		\$	33,555	\$	34,227	\$	34,911	\$	35,609	\$	36,321
4100530	52446	Meter Service Change outs	11	\$ 1.002.933	\$ 2,000,00		2,060,000		2,121,800		2,185,454		1,126,000	\$	290,000	\$	298,700	\$	307,661	\$	316,891
4100000		AL: METER SERVICES		\$ 1,846,028	\$ 2,997,12				3,210,788				2,267,443	_		\$			1,534,620		1,574,385
ADMINISTR				Ψ 1,040,020	Ψ 2,337,12	- V	3,123,330	Ψ	3,210,700	Ψ,	3,300,240	Ψ	2,201,440	Ψ	1,400,000	Ψ	1,430,170	Ψ	1,004,020	Ψ	1,07 4,000
4100030		Full Time Wages	3	\$ 629,131	\$ 565,96	3 \$	622,559	\$	635,010	\$	647,711	\$	660,665	\$	673,878	\$	687,356	\$	701,103	\$	715,125
4100030	51110	Overtime Wages	4	\$ 173	\$ 145,19		,	\$	151,058	\$		\$	157,160	\$	160,304	\$	163,510	\$	166,780	\$	170,116
4100030	51200	Fringe Benefits	4	\$ 224,467	\$ 162,53		,	\$	169,099	\$		\$	175,931	\$	179,450	\$	183,039	\$,	\$	190.433
4100030	51220	Retiree Health Care	4	\$ (63,235)	\$ 357,00		,	\$	371,423	\$,	\$	386,428	\$	394,157	\$	402,040	\$,	\$	418,282
4100030	51300	Payroll Taxes	3	\$ 6,826	\$ 14,43		,	\$	16,193	\$		\$	16,847	\$	17,184	\$	17,528	\$		\$	18,236
4100030	52010	Utilities-Electricity	6	\$ 39,915	\$ 48,30			\$	53,454	\$		\$	59,158	\$	62,234		65,470	\$		\$	72,456
4100030	52010	Utilities-Water Usage	13	\$ 10,043	\$ 40,30		,	\$	11,348	\$,	\$	12,751	\$	13,516	\$	14,327	\$	15,187	\$	16,098
4100030	52020	Utilities-Natural Gas	13	\$ 10,043	\$ 10,10		,	\$	5,730	\$		\$	6,439	\$	6,825	\$	7,234	Ф \$	7,669	Ф \$	8,129
				¥ .,=			,			+			,		,				,		
4100030	52040	Utilities-Sanitation	13 2	1,010	\$ 8,80		,	\$	9,888 27.050	\$		\$	11,110	\$	11,776	\$	12,483	\$	13,232	\$ \$	14,026
4100030	52060	Telephone		Ψ ==,0.0	\$ 26,00		-,	\$,	\$		\$	28,143	\$	28,706	\$	29,280	\$	- ,		30,463
4100030	52110	Supplies	2	\$ 5,489	\$ 9,00		,	\$	9,364	\$,	\$	9,742	\$	9,937	\$	10,135	\$,	\$	10,545
4100030	52130	Subs, Publications & Memberships	2	\$ 5,569	\$ 24,00		,	\$	24,970	\$		\$	25,978	\$	26,498	\$	27,028	\$	27,568	\$	28,120
4100030	52140	Training & Education	2	\$ 5,768	\$ 3,00		,	\$	3,121	\$		\$	3,247	\$	3,312	\$	3,378	\$	3,446	\$	3,515
4100030	52150	Travel & Meetings	2	\$ 1,089	\$ 50			\$	520	\$		\$	541	\$	552	\$	563	\$	574	\$	586
4100030	52160	Marketing Promotions	2	\$ 30,079	\$ 62,50		,	\$	65,025	\$		\$	67,652	\$	69,005	\$	70,385	\$	71,793	\$	73,229
4100030	52170	Legal Notices	2	\$ 2,029	\$ 3,00		,	\$	3,121	\$		\$	3,247	\$	3,312	\$	3,378	\$	3,446	\$	3,515
4100030	52201	Fuel	5	\$ 6,108	\$ 5,00		-,	\$	5,941	\$	-, -	\$	7,058	\$	7,693	\$	8,386	\$	9,140	\$	9,963
4100030	52230	Vehicle Expense	12	\$ 1,121	\$ 1,00		1,040	\$	1,082	\$	1,125	\$	1,170	\$	1,217	\$	1,265	\$	1,316	\$	1,369
4100030	52240	Furniture & Small Tools <\$5000	2	\$ -	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
4100030	52260	Computer Related Equip <\$5000	2	\$ 6,272	\$ 45,00		-,	\$	46,818	\$, -	\$	48,709	\$	49,684	\$	50,677	\$	51,691	\$	52,725
4100030	52300	Contract Services	2	\$ 140,862	\$ 112,50			\$	117,045	\$		\$	121,774	\$	124,209	\$	126,693	\$	129,227	\$	131,812
4100030	52340	Insurance	2	\$ 217,773	\$ 235,00	0 \$	239,700	\$	244,494	\$	249,384	\$	254,372	\$	259,459	\$	264,648	\$	269,941	\$	275,340
4100030	52350	Legal	2	\$ 137,265	\$ 260,00	0 \$	265,200	\$	270,504	\$	275,914	\$	281,432	\$	287,061	\$	292,802	\$		\$	304,631
4100030	52360	Federal, State & Local Fees	2	\$ 25,828	\$ 37,00	0 \$	37,740	\$	38,495	\$	39,265	\$	40,050	\$	40,851	\$	41,668	\$	42,501	\$	43,351
4100030	52410	Building Maintenance	2	\$ 3,892	\$ 15,00	0 \$	15,300	\$	15,606	\$	15,918	\$	16,236	\$	16,561	\$	16,892	\$	17,230	\$	17,575
4100030	52450	Vandalism	2	\$ 9,167	\$ 10,00	0 \$	10,200	\$	10,404	\$	10,612	\$	10,824	\$	11,041	\$	11,262	\$	11,487	\$	11,717
4100030	54020	Cost Allocations Paid	2	\$ 1,292,857	\$ 1,312,12	9 \$	1,338,372	\$	1,365,139	\$	1,392,442	\$ 1	1,420,291	\$	1,448,696	\$	1,477,670	\$	1,507,224	\$	1,537,368
4101515	52300	Contract Services (12)	2	\$ -	\$ 18,20			\$	18,935	\$	19,314	\$	19,700	\$	20,094	\$	20,496	\$	20,906	\$	21,324
		AL: ADMINISTRATIVE SERVICES		\$ 2,769,584	\$ 3,496,24	9 \$		\$	3,690,837	\$:		\$ 3	3,846,656				4,009,595	_	,	_	4,180,047
CAPITAL P					· · · · ·	T		Ė			,				· · · · · ·	Ė			,		
4100010		Capital Purchases (13)	13	\$ -	\$	- \$	-	\$	-	\$	-	\$	-	\$	_	\$	-	\$	-	\$	_
		AL: CAPITAL PURCHASES		\$ -	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
CDAND.		ATER OPERATING EXPENSES		\$17,786,838	¢ 22 470 7F	4 6	10 172 900	¢ 4	0 727 05/	6.2	0 303 033	¢ 40	776 027	• 4	10 406 004	ė.	20 002 262	¢ ^	0 605 626	<u>÷</u>	1 22/ 520
GRAND	IOTAL: W	MIER OPERATING EXPENSES		φ 11,100,638	Φ 44,419,15	4 4	19,172,090	ÞΊ	9,121,004	⊅ ∠(0,303,022	D IS	9,110,931	Ð.	19,490,007	Ψ	20,003,202	ąΖ	∪,∪93,0∠6	⊅ 2′	1,334,338

NON-CASH ITEMS, EXCLUDED FROM ABOVE:

ORG.	OBJECT DESCRIPTION	CPI	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
DEPRECI	ATION											
4100010	52460 Depreciation Expense	12	\$ 9,852,360	\$ 7,438,000	\$ 7,382,000	\$ 6,888,000	\$ 6,698,000	\$ 6,761,000	\$ 7,155,000	\$ 7,195,000	\$ 7,322,000	\$ 7,484,000
	SUBTOTAL: DEPRECIATION		\$ 9,852,360	\$ 7,438,000	\$ 7,382,000	\$ 6,888,000	\$ 6,698,000	\$ 6,761,000	\$ 7,155,000	\$ 7,195,000	\$ 7,322,000	\$ 7,484,000

FORECASTING ASSUMPTIONS:

COST INFLATION FACTORS (14)	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
1 Customer Growth (15)	-	0.60%	0.60%	0.60%	0.60%	0.60%	0.00%	0.00%	0.00%	0.00%
2 General Cost Inflation (prior 5-year average)		2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
3 Full Time Wages & Payroll Taxes Cost Inflation (16)		2.00%	10.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
4 All Other Labor Cost Inflation (prior 5-year average)		2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
5 Fuel Cost Inflation (prior 5-year average)		9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%
6 Production Power / Electricity		5.20%	5.20%	5.20%	5.20%	5.20%	5.20%	5.20%	5.20%	5.20%
7 Purchased Water Cost Inflation (MWA forecast)		6.50%	6.50%	6.50%	6.50%	6.50%	6.50%	6.50%	6.50%	6.50%
8 Groundwater Replenishment Cost Inflation (MWA forecast)		8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%
9 Makeup Obligation Cost Inflation (MWA forecast)		8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%
10 Groundwater Assessment Cost Inflation (MWA forecast)		2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
11 Meter Service Change Outs		3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
12 Transportation Inflation		4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
13 Natural Gas / Other Utilities		6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%
14 No Cost Inflation		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

- (1) Revenue and expenses for FY 2014/15 and FY 2015/16 were provided by District Staff on 9/8/2015 and updated 11/23/2015. (Source File: Water cash balance 9-8-15.xlsx and updated with VWD Conservation Adjustments.xlsx)
- (2) Revenue and expenses for FY 2016/17 were provided by District Staff on 5/18/2015 and updated 11/23/2015.
 - (File: VWD Rate Analysis 05-18-2015.xls, and updated with VWD Conservation Adjustments.xlsx). Per District Staff, rate revenue excludes arsenic treatment charges.
- (3) Rate revenue projection in 2015/16 accounts for a loss in revenue due to anticipated conservation. Updated projections from staff email 11/23/15. It is assumed that the District will meet its 28% conservation target: therefore, an additional 19% reduction in water sales in 2016 would occur.
- (4) The one-time reimbursement from CalTrans for an I-15 widening project was zeroed out, per staff email 11/23/2015. Per District Staff, the offsetting capital cost is not included in this analysis.
- (5) Budgeted pass-through revenue from SCLA is zeroed out in this analysis because it should not be considered revenue for the utility, per Finance Department Staff. Original budget amounts are \$198,328 for 2015/16, and \$175,000 for 2016/17.
- (6) Interest income is per the District's budget for FY 2014/15 2015/16, and calculated in the Financial Plan for all future years.
- (7) One time sale of Administration Building for Victorville Water District. (source: Memorandum 11/17/2015 Subject Close of Escrow 17185 Yuma Road, File: SRDA-315111712020)
- (8) Purchased Water cost is the cost Victorville Water District pays to the Mojave Water Agency for R³ water, in order to pump water to Victorville; it's a pumping cost, similar to production power. The cost is \$125/AF and is variable based on the cost of power and changes each year.
- (9) Groundwater Assessment is the Mojave Water Agency's cost of testing the water, to ensure quality standards.
- (10) Groundwater Replenishment is the additional cost of groundwater, over the Free Production Allowance (FPA). Currently, Base Annual Production (BAP) is 25,952 AF, and FPA is 60% of BAP, or 15,572 AF.
- (11) Per District Staff, the Makeup Obligation is related to the annual flow down the Mojave River, which is very difficult to predict and is a cost of water similar to the replacement obligation. As the drought lengthens, the prospect of Makeup increases.
- (12) Updated per client email from 11/23/2015 to account for 28% conservation.
- (13) Budgeted Capital Purchases are included in Exhibit 2 of this model.
- (14) Cost inflation and customer growth factors from Technical Memo provided to staff 11/23/2015. (File: VWD_NBS Inflation Factors for Waster Study 11-23-15.pdf)
- (15) Customer growth is estimated to be approximately 0.6% through 2020, per Planning Department Staff (email dated 10/7/2015).
- (16) Per Finance Department Staff, Full Time Wages and Payroll Taxes are projected to increase 10% in FY 2016/17, for going back to a 40-hour work week.

Capital Improvement Plan Expenditures

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

CAPITAL FUNDING SUMMARY

CAPITAL FUNDING FORECAST	Estimate					Projected				
Funding Sources:	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18	FY 2018/19	FY 2019/20	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24
Grants	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Use of Capacity Fee Reserves	-	-	-	-	-	-	-	-	-	-
SRF Loan Funding	-	-	-	-	-	-	-	-	-	-
Use of New Revenue Bond Proceeds	-	-	-	-	-	-	-	-	-	-
Use of Capital Rehabilitation and Replacement Reserve	2,588,592	6,483,795	8,885,957	1,987,228	86,840	197,025	197,895	-	-	-
Rate Revenue	-	-	-	571,324	1,687,885	3,768,466	6,562,387	6,354,995	6,436,668	4,378,708
Total Sources of Capital Funds	\$ 2,588,592	\$ 6,483,795	\$ 8,885,957	\$ 2,558,552	\$ 1,774,725	\$ 3,965,491	\$ 6,760,282	\$ 6,354,995	\$ 6,436,668	\$ 4,378,708
Uses of Capital Funds:										
Total Project Costs	\$ 2,588,592	\$ 6,483,795	\$ 8,885,957	\$ 2,558,552	\$ 1,774,725	\$ 3,965,491	\$ 6,760,282	\$ 6,354,995	\$ 6,436,668	\$ 4,378,708
Capital Funding Surplus (Deficiency)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
SRF Loan Funding	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
New Revenue Bond Proceeds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

CAPITAL IMPROVEMENT PROGRAM

Capital Improvement Program Costs (1):

Project Description	2015	2016	2017	2018	2019	2020	2021		2022	2023	2024
Backhoes	\$ _	\$ 120,000	\$ 372,000	\$ -	\$ -	\$ 130,000	\$ -	\$	-	\$ -	\$ -
Booster Pumping Stations	\$ 1,400	\$ 229,000	\$ 1,570,000	\$ -	\$ -	\$ -	\$ -	\$	-	\$ -	\$ -
Demonstration Gardens/Low Water Use Conversions	\$ -	\$ 145,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$	-	\$ -	\$ -
Facilities Improvements	\$ 586,137	\$ 209,000	\$ 250,000	\$ -	\$ -	\$ -	\$ -	\$	-	\$ -	\$ -
Fiber Optic Upgrade	\$ -	\$ 85,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$	-	\$ -	\$ -
GIS Mapping	\$ 40,100	\$ -	\$ 150,000	\$ -	\$ -	\$ -	\$ -	\$	-	\$ -	\$ -
Information Technology	\$ 14,325	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$	-	\$ -	\$ -
IVR Telephone System Enhancements, Phase II	\$ 139,766	\$ 81,500	\$ -	\$ -	\$ -	\$ -	\$ -	\$	-	\$ -	\$ -
Master Plan - Update	\$ 22,323	\$ -	\$ 225,000	\$ -	\$ -	\$ -	\$ -	\$	150,000	\$ -	\$ -
Meter Replacements	\$ 42,198	\$ 100,000	\$ 103,000	\$ 106,000	\$ 109,000	\$ 112,000	\$ 115,000	\$	118,000	\$ 122,000	\$ 126,000
Percolation Pond Modifications	\$ 621,629	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$	-	\$ -	\$ -
Ph Analyzer	\$ -	\$ 5,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$	-	\$ -	\$ -
Phone System Upgrade	\$ -	\$ 16,009	\$ -	\$ -	\$ -	\$ -	\$ -	\$	-	\$ -	\$ -
Pipelines	\$ 397,327	\$ 2,798,086	\$ 4,939,100	\$ 3,110,400	\$ 2,704,800	\$ 3,007,200	\$ 5,371,200	\$	6,933,600	\$ 5,940,000	\$ 2,942,400
PRV Stations	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 300,000	\$	-	\$ -	\$ -
Pump to Waste	\$ 76,402	\$ 200,000	\$ 220,000	\$ -	\$ -	\$ -	\$ -	\$	-	\$ -	\$ -
Right of Way Relocations	\$ 42,397	\$ 1,185,000	\$ 129,000	\$ 133,000	\$ 137,000	\$ 141,000	\$ 145,000	\$	149,000	\$ 153,000	\$ 158,000
SCADA - Replace PX	\$ -	\$ 12,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$	-	\$ -	\$ -
Instruments and Machines	\$ 17,290	\$ 14,500	\$ 140,000	\$ 34,000	\$ -	\$ -	\$ -	\$	-	\$ -	\$ -
Truck/Vehicle/Equipment Replacement	\$ 587,298	\$ 556,700	\$ 535,800	\$ 142,000	\$ 494,200	\$ 161,300	\$ 486,000	\$	515,000	\$ 70,000	\$ 290,000
Urban Water Management Plan Update	\$ -	\$ 50,000	 -	\$ -	\$ -	\$ -	\$ 50,000	\$	-	\$ -	\$ -
Vulnerability Assessment Update	\$ -	\$ 20,000	-	\$ -	\$ -	\$ -	\$ -	\$	-	\$ -	\$ -
Well Re-equip	\$ -	\$ 450,000	-	\$ -	\$ -	\$ -	\$ -	\$	-	\$ -	\$ -
Work Order System	\$ -	\$ 207,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$	-	\$ -	\$ -
Unfunded Capital	\$ 	\$ -	\$ -	\$ (1,100,000)	(1,800,000)	\$ -	\$	_	()//	(1,000,000)	\$ -
Total: CIP Program Costs	\$ 2,588,592	\$ 6,483,795	\$ 8,633,900	\$ 2,425,400	\$ 1,645,000	\$ 3,551,500	\$ 5,867,200	\$	5,365,600	\$ 5,285,000	\$ 3,516,400

Capital Improvement Plan Expenditures

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

Capital Improvement Program Costs (in Future-Year Dollars) (2):

Project Description		2015	2016	2017	2018		2019		2020	2021		2022	2023		2024
Backhoes	\$	-	\$ 120,000	\$ 383,160	\$ -	\$	-	\$	146,316	\$ -	\$	-	\$ -	\$	-
Booster Pumping Stations	\$	1,400	\$ 229,000	\$ 1,617,100	\$ -	\$	-	\$	-	\$ -	\$	-	\$ -	\$	-
Demonstration Gardens/Low Water Use Conversions	\$	-	\$ 145,000	\$ -	\$ -	\$	-	\$	-	\$ -	\$	-	\$ -	\$	-
Facilities Improvements	\$	586,137	\$ 209,000	\$ 257,500	\$ -	\$	-	\$	-	\$ -	\$	-	\$ -	\$	-
Fiber Optic Upgrade	\$	-	\$ 85,000	\$ -	\$ -	\$	-	\$	-	\$ -	\$	-	\$ -	\$	-
GIS Mapping	\$	40,100	\$ -	\$ 154,500	\$ -	\$	-	\$	-	\$ -	\$	-	\$ -	\$	-
Information Technology	\$	14,325	\$ -	\$ -	\$ -	\$	-	\$	-	\$ -	\$	-	\$ -	\$	-
IVR Telephone System Enhancements, Phase II	\$	139,766	\$ 81,500	\$ -	\$ -	\$	-	\$	-	\$ -	\$	-	\$ -	\$	-
Master Plan - Update	\$	22,323	\$ -	\$ 231,750	\$ -	\$	-	\$	-	\$ -	\$	179,108	\$ -	\$	-
Meter Replacements	\$	42,198	\$ 100,000	\$ 103,000	\$ 106,000	\$	109,000	\$	112,000	\$ 115,000	\$	118,000	\$ 122,000	\$	126,000
Percolation Pond Modifications	\$	621,629	\$ -	\$ -	\$ -	\$	-	\$	-	\$ -	\$	-	\$ -	\$	-
Ph Analyzer	\$	-	\$ 5,000	\$ -	\$ -	\$	-	\$	-	\$ -	\$	-	\$ -	\$	-
Phone System Upgrade	\$	-	\$ 16,009	\$ -	\$ -	\$	-	\$	-	\$ -	\$	-	\$ -	\$	-
Pipelines	\$	397,327	\$ 2,798,086	\$ 5,087,273	\$ 3,299,823	\$	2,955,608	\$	3,384,630	\$ 6,226,693	\$	8,279,081	\$ 7,305,451	\$	3,727,344
PRV Stations	\$	-	\$ -	\$ -	\$ -	\$	-	\$	-	\$ 347,782	\$	-	\$ -	\$	-
Pump to Waste	\$	76,402	\$ 200,000	\$ 226,600	\$ -	\$	-	\$	-	\$ -	\$	-	\$ -	\$	-
Right of Way Relocations	\$	42,397	\$ 1,185,000	\$ 129,000	\$ 133,000	\$	137,000	\$	141,000	\$ 145,000	\$	149,000	\$ 153,000	\$	158,000
SCADA - Replace PX	\$	-	\$ 12,000	\$ -	\$ -	\$	-	\$	-	\$ -	\$	-	\$ -	\$	-
Instruments and Machines	\$	17,290	\$ 14,500	\$ 144,200	\$ 36,071	\$	-	\$	-	\$ -	\$	-	\$ -	\$	-
Truck/Vehicle/Equipment Replacement	\$	587,298	\$ 556,700	551,874	\$ 150,648	\$	540,026	\$	181,545	\$ 563,407	\$	614,937	\$ 86,091	\$	367,363
Urban Water Management Plan Update	\$	-	\$ 50,000	-	\$ -	\$	-	\$	-	\$ 57,964	\$	-	\$ -	\$	-
Vulnerability Assessment Update	\$	-	\$ 20,000	-	\$ -	\$	-	\$	-	\$ -	\$	-	\$ -	\$	-
Well Re-equip	\$	-	\$ 450,000	-	\$ -	\$	-	\$	-	\$ -	\$	-	\$ -	\$	-
Work Order System	\$	-	\$ 207,000	\$ -	\$ -	\$	-	\$	-	\$ -	\$	-	\$ -	\$	-
Unfunded Capital	\$	-	\$ -	\$ -		_	(1,966,909)	_	-	\$ 	_	(2,985,131)	,	_	-
Total: Capital Improvement Program Costs (Future-Year Dolla	ar \$	2,588,592	\$ 6,483,795	\$ 8,885,957	\$ 2,558,552	\$	1,774,725	\$	3,965,491	\$ 6,760,282	\$	6,354,995	\$ 6,436,668	\$	4,378,708

FORECASTING ASSUMPTIONS:

Economic Variables	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Annual Construction Cost Inflation, Per Engineering News Record (2)	0.00%	0.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Cumulative Construction Cost Multiplier from 2015	1.00	1.00	1.03	1.06	1.09	1.13	1.16	1.19	1.23	1.27

⁽¹⁾ Capital project costs for were provided by District Staff on February 8, 2016 (file: CIP witn cost inflation edited.x/sx).

⁽²⁾ Project costs are inflated by 3% per year, Engineering News Record estimates of construction cost inflation from 2016 values. The average change from 2005 to 2015 was used in this analysis. Meter Replacement and Right of Way Relocation costs are not inflated, as the cost estimates include inflation, per District Staff 2/4/2016.

Cost of Service Analysis

Classification of Expenses														
Budget Categories	Re	otal Revenue equirements	C	ommodity		Capacity	C	Customer	ŀ	Fire Protection	(0.011)		assification	,
4100500 - WATER PURCHASES	<u> F</u>	Y 2016/17		(COM)		(CAP)		(CA)		(FP)	(COM)	(CAP)	(CA)	(FP)
	•	283,300	6	283,300	Φ		σ.	T	¢.	- 1	100%	0%	0%	0%
Purchased Water	\$	76,100	\$	76,100	\$	-	\$	-	\$		100%	0%	0%	0% 0%
Groundwater Assessment	\$	76,100		76,100	\$	-	\$	-	\$	-	100%	0%	0%	0%
Groundwater Replenishment	\$				\$		\$	-			100%	0%	0%	0%
SUBTOTAL: WATER PURCHASES	Þ	1,130,900	\$	1,130,900	Þ		Þ		\$		100%	U%	U%	0%
4100500 - MAKEUP OBLIGATION	- n	454 500	\$	454.500	•		\$		•	- 1	100%	0%	0%	0%
Makeup Obligation	\$	151,500		151,500	\$ \$		\$		\$ \$		100%	0%	0%	0%
SUBTOTAL: MAKEUP OBLIGATION	\$	151,500	\$	151,500	Þ		Þ		Þ	- 1	100%	0%	U%	0%
4100500 - PRODUCTION POWER	- Λ	4.005.004	·	4.005.004	Φ.		Ι φ		•	- 1	4000/	00/	00/	00/
Utilities-Production Power	\$	1,965,031	\$	1,965,031	\$		\$ \$	-	\$ \$		100% 100%	0% 0%	0% 0%	0% 0%
SUBTOTAL: PRODUCTION POWER	\$	1,965,031	Þ	1,965,031	\$		Þ		Þ		100%	0%	0%	0%
4100500 - SUPPLY SERVICES	Φ.	4 000 000	•		Φ.	4.040.074	Φ.	1	•	00.000	00/	000/	00/	20/
Full Time Wages	\$	1,039,063	\$	-	\$	1,018,674	\$	-	\$	20,389	0%	98%	0%	2%
Overtime Wages	\$	79,589		-	\$	78,027	\$	-	\$	1,562	0%	98%	0%	2%
Fringe Benefits	\$	373,632	\$	-	\$	366,301	\$	-	\$	7,332	0%	98%	0%	2%
Payroll Taxes	\$	26,496	\$	-	\$	25,976	\$	-	\$	520	0%	98%	0%	2%
Telephone	\$	11,220	\$	5,502	\$	5,498	\$	-	\$	220	49%	49%	0%	2%
Supplies	\$	16,626	\$	8,153	\$	8,147	\$	-	\$	326	49%	49%	0%	2%
Training & Education	\$	7,854	\$	-	\$	7,700	\$	-	\$	154	0%	98%	0%	2%
Fuel	\$	56,680	\$	27,795	\$	27,773	\$	-	\$	1,112	49%	49%	0%	2%
Vehicle Expense	\$	31,200	\$	15,300	\$	15,288	\$	-	\$	612	49%	49%	0%	2%
Furniture & Small Tools <\$5000	\$	10,200	\$	5,002	\$	4,998	\$	-	\$	200	49%	49%	0%	2%
Computer Related Equip <\$5000	\$	-	\$	-	\$	-	\$	-	\$	-	49%	49%	0%	2%
Contract Services	\$	612,000	\$	300,111	\$	299,880	\$	-	\$	12,009	49%	49%	0%	2%
Grounds Maintenance	\$	54,060	\$	26,510	\$	26,489	\$	-	\$	1,061	49%	49%	0%	2%
Infrastructure Repairs	\$	132,600	\$	65,024	\$	64,974	\$	-	\$	2,602	49%	49%	0%	2%
SUBTOTAL: SUPPLY SERVICES	\$	2,451,220	\$	453,396	\$	1,949,724	\$	-	44	48,099	18%	80%	0%	2%
4100505 - SCADA SERVICES														
Full Time Wages	\$	145,541	\$	-	\$	144,066	\$	-	\$	1,475	0%	99%	0%	1%
Overtime Wages	\$	2,168	\$	-	\$	2,146	\$	-	\$	22	0%	99%	0%	1%
Fringe Benefits	\$	40,928	\$	-	\$	40,513	\$	-	\$	415	0%	99%	0%	1%
Retiree Expense	\$	-	\$	-	\$	-	\$	-	\$	-	0%	99%	0%	1%
Payroll Taxes	\$	3,711	\$	-	\$	3,674	\$	-	\$	38	0%	99%	0%	1%
Telephone	\$	-	\$	-	\$	-	\$	-	\$	-	0%	99%	0%	1%
Supplies	\$	3,060	\$	-	\$	3,029	\$	-	\$	31	0%	99%	0%	1%
Subs, Publications & Memberships	\$	18,870	\$	-	\$	18,679	\$	-	\$	191	0%	99%	0%	1%
Training & Education	\$	6,120	\$	-	\$	6,058	\$	-	\$	62	0%	99%	0%	1%
Fuel	\$	5,450	\$	-	\$	5.395	\$	-	\$	55	0%	99%	0%	1%
Vehicle Expense	\$	2.080	\$	_	\$	2,059	\$	-	\$	21	0%	99%	0%	1%
Furniture & Small Tools <\$5000	\$	15,300	\$	-	\$	15,145	\$	-	\$	155	0%	99%	0%	1%
Contract Services	\$	6,120	\$	-	\$	6,058	\$	-	\$	62	0%	99%	0%	1%
Infrastructure Repairs	\$	70,890	\$	-	\$	70,172	\$	_	\$	718	0%	99%	0%	1%
SUBTOTAL: SCADA SERVICES	\$	320,237		-	\$	316,993		-	\$	3,245	0%	99%	0%	1%
4100515 - QUALITY SERVICES (Treatment)	Ť	J_J,_U1	*		-	2.3,000	<u> </u>		Ť	3,2-13	- 70			
Full Time Wages	\$	67,165	\$	-	\$	65,847	\$	- 1	\$	1,318	0%	98%	0%	2%
Overtime Wages	\$	6,673	\$	_	\$	6,542	\$	_	\$	131	0%	98%	0%	2%
Fringe Benefits	\$	24,215	\$	_	\$	23,740	\$	_	\$	475	0%	98%	0%	2%
Payroll Taxes	\$	1,713	\$		\$	1,679	\$	_	\$	34	0%	98%	0%	2%
Telephone	\$	1,713	\$	-	\$	1,019	\$		\$		49%	49%	0%	2%
	Φ	146,880	\$	143,998	\$	-	\$	-]	\$	2,882	49% 98%	49% 0%	0%	2% 2%
Supplies Training & Education	\$ \$	510	\$	250	\$	250	\$		\$	2,002	96% 49%	49%	0%	2% 2%
Training & Education	\$	4,033	\$		\$	1,976	\$	-	\$	79	49% 49%	49%	0%	2% 2%
Fuel				1,978				-		79 47				
Vehicle Expense	\$	2,392	\$	1,173	\$	1,172	\$	-	\$		49%	49%	0%	2%
Furniture & Small Tools <\$5000	\$	510	\$	250	\$	250	\$	-	\$	10	49%	49%	0%	2%
Contract Services	\$	194,820	\$	190,997	\$	-	\$	-	\$	3,823	98%	0%	0%	2%
= 1 10::01 /=														2%
Federal, State & Local Fees	\$	22,440	\$	11,004	\$	10,996	\$	-	\$	440	49%	49%	0%	
Federal, State & Local Fees Infrastructure Repairs SUBTOTAL: QUALITY SERVICES	\$ \$	22,440 20,400 491,750	\$	11,004 10,004 359,654	\$ \$	10,996 9,996 122,447	\$	- -	\$ \$	440 400 9,649	49% 49% 73%	49% 49% 25%	0% 0% 0 %	2% 2%

lassification of Expenses	Total Revenue							Fire				
Budget Categories	Requirements	Commodity		Capacity	С	ustomer	F	Protection		Basis of CI	assification	
	FY 2016/17	(COM)		(CAP)		(CA)		(FP)	(COM)	(CAP)	(CA)	(FP)
4100535 - FIELD SERVICES												
Full Time Wages	\$ 1,163,193	\$ -	\$	1,104,879	\$	46,528	\$	11,786	0%	95%	4%	1%
Overtime Wages	\$ 96,434	\$ -	\$	91,599	\$	3,857	\$	977	0%	95%	4%	1%
Part Time Wages	\$ -	\$ -	\$	-	\$	-	\$	-	0%	95%	4%	1%
Fringe Benefits	\$ 443,146	\$ -	\$	420,930	\$	17,726	\$	4,490	0%	95%	4%	1%
Payroll Taxes	\$ 29,662	\$ -	\$	28,174	\$	1,186	\$	301	0%	95%	4%	1%
Telephone	\$ 6,426	\$ -	\$	6,104	\$	257	\$	65	0%	95%	4%	1%
Supplies	\$ 16,320	\$ -	\$	15,502	\$	653	\$	165	0%	95%	4%	1%
Training & Education	\$ 4,080	\$ -	\$	3,875	\$	163	\$	41	0%	95%	4%	1%
Fuel	\$ 74,120	\$ -	\$	70,404	\$	2,965	\$	751	0%	95%	4%	1%
Equipment	\$ 57,120	\$ -	\$	54.256	\$	2,285	\$	579	0%	95%	4%	1%
Vehicle Expense	\$ 63,544	\$ -	\$	60,358	\$	2,542	\$	644	0%	95%	4%	1%
Furniture & Small Tools <\$5000	\$ 25,500	\$ -	\$	24,222	\$	1,020	\$	258	0%	95%	4%	1%
	\$ 25,500	\$ -	\$	24,222	\$	1,020	\$	236	0%	95%	4%	1%
Computer Related Equip <\$5000		*		40.504		-		- 445				
Contract Services		\$ -	\$	13,564	\$	571	\$	145	0%	95%	4%	1%
Infrastructure Repairs	\$ 402,900	\$ -	\$	382,702	\$	16,116	\$	4,082	0%	95%	4%	1%
SUBTOTAL: FIELD SERVICES	\$ 2,396,724	- \$	\$	2,276,571	\$	95,869	\$	24,284	0%	95%	4%	1%
4104500 - ENGINEERING SERVICES	A 000 000	Ι φ	Ι φ	500.004		05.500		40.540	00/	0.407	40/	00/
Full Time Wages	\$ 638,003	\$ -	\$	599,964	\$	25,520	\$	12,519	0%	94%	4%	2%
Overtime Wages	\$ 23,263	\$ -	\$	21,876	\$	931	\$	456	0%	94%	4%	2%
Fringe Benefits	\$ 185,551	\$ -	\$	174,488	\$	7,422	\$	3,641	0%	94%	4%	2%
Payroll Taxes	\$ 16,269	\$ -	\$	15,299	\$	651	\$	319	0%	94%	4%	2%
Supplies	\$ 6,120	\$ -	\$	5,755	\$	245	\$	120	0%	94%	4%	2%
Training & Education	\$ 1,020	\$ -	\$	959	\$	41	\$	20	0%	94%	4%	2%
Fuel	\$ 11,445	\$ -	\$	10,763	\$	458	\$	225	0%	94%	4%	2%
Vehicle Expense	\$ 5,200	\$ -	\$	4,890	\$	208	\$	102	0%	94%	4%	2%
Furniture & Small Tools <\$5000	\$ 510	\$ -	\$	480	\$	20	\$	10	0%	94%	4%	2%
Contract Services	\$ 73,440	\$ -	\$	69,061	\$	2,938	\$	1,441	0%	94%	4%	2%
Infrastructure Repairs	\$ 10,200	\$ -	\$	9,592	\$	408	\$	200	0%	94%	4%	2%
SUBTOTAL: ENGINEERING SERVICES	\$ 971,022	\$ -	\$	913,127	\$	38,841	\$	19,054	0%	94%	4%	2%
4100525 - ENVIRONMENTAL PROGRAMS												
Full Time Wages	\$ 266,511	\$ -	\$	250,621	\$	10,660	\$	5,230	0%	94%	4%	2%
Overtime Wages	\$ 3,904	\$ -	\$	3.671	\$	156	\$	77	0%	94%	4%	2%
Fringe Benefits	\$ 86,391	\$ -	\$	81,240	\$	3,456	\$	1,695	0%	94%	4%	2%
Payroll Taxes	\$ 6,796	\$ -	\$	6,391	\$	272	\$	133	0%	94%	4%	2%
Utilities-Electricity	\$ 2,341	\$ -	\$	2,201	\$	94	\$	46	0%	94%	4%	2%
Utilities-Water Usage	\$ 143	\$ -	\$	135	\$	6	\$	3	0%	94%	4%	2%
Utilities-Water Osage Utilities-Natural Gas	\$ 207	\$ -	\$	194	\$	8	\$	4	0%	94%	4%	2%
	\$ 408	\$ -	\$	384	\$	16	\$	8	0%	94%	4%	2%
Telephone	\$ 4,692	\$ -	\$	4,412	\$	188	\$	92	0%	94%	4% 4%	2%
Supplies	\$ 4,692	\$ -	\$,	\$	49	\$	24	0%	94%	4% 4%	
Training & Education				1,151								2%
Conservation Programs	\$ 44,543	\$ -	\$	41,888	\$	1,782	\$	874	0%	94%	4%	2%
Fuel	\$ 3,270	\$ -	\$	3,075	\$	131	\$	64	0%	94%	4%	2%
Vehicle Expense	\$ 2,808	\$ -	\$	2,641	\$	112	\$	55	0%	94%	4%	2%
Furniture & Small Tools <\$5000	\$ 510	\$ -	\$	480	\$	20	\$	10	0%	94%	4%	2%
Computer Related Equip <\$5000	\$ 3,672	\$ -	\$	3,453	\$	147	\$	72	0%	94%	4%	2%
Contract Services	\$ 3,213	\$ -	\$	3,021	\$	129	\$	63	0%	94%	4%	2%
SUBTOTAL: ENVIRONMENTAL PROGRAMS	\$ 430,632	\$ -	\$	404,957	\$	17,225	\$	8,450	0%	94%	4%	2%

VICTORVILLE WATER DISTRICT WATER RATE STUDY Cost of Service Analysis

assification of Expenses Budget Categories		otal Revenue	Cor	nmodity		Capacity	(Customer	Р	Fire rotection		Basis of Cl	assification	
		Y 2016/17	(COM)		(CAP)		(CA)		(FP)	(COM)	(CAP)	(CA)	(FP)
4100545 - CUSTOMER SERVICES														
Full Time Wages	\$	1,135,927	\$	-	\$	-	\$	1,124,417	\$	11,510	0%	0%	99%	1%
Overtime Wages	\$	-	\$	-	\$	-	\$	-	\$	-	0%	0%	99%	1%
Part Time Wages	\$	-	\$	-	\$	-	\$	-	\$	-	0%	0%	99%	1%
Fringe Benefits	\$	363,071	\$	-	\$	-	\$	359,392	\$	3,679	0%	0%	99%	1%
Payroll Taxes	\$	28,966	\$	-	\$	-	\$	28,673	\$	293	0%	0%	99%	1%
Utilities-Electricity	\$	12,967	\$	-	\$	-	\$	12,836	\$	131	0%	0%	99%	1%
Utilities-Water Usage	\$	791	\$	-	\$	_	\$	783	\$	8	0%	0%	99%	1%
Utilities-Natural Gas	\$	1.145	\$	_	\$	_	\$	1,133	\$	12	0%	0%	99%	1%
Telephone	\$	306	\$	_	\$	_	\$	303	\$	3	0%	0%	99%	1%
Supplies	\$	144.618	\$	_	\$	_	\$	143,152	\$	1.465	0%	0%	99%	1%
Training & Education	\$	7,944	\$	_	\$	_	\$	7,863	\$	80	0%	0%	99%	1%
Travel & Meetings	\$	5,355	\$	_	\$	_	\$	5,301	\$	54	0%	0%	99%	1%
Furniture & Small Tools <\$5000	\$	2,448	\$	_	\$	_	\$	2,423	\$	25	0%	0%	99%	1%
Contract Services	\$	323,975	\$	_	\$	_	\$	320,693	\$	3,283	0%	0%	99%	1%
Cust-Legal	\$	525,975	\$	-	\$	_	\$	520,095	\$	5,205	0%	0%	99%	1%
Federal, State & Local Fees	\$	8,160	\$		\$		\$	8,077	\$	83	0%	0%	99%	1%
Building Maintenance	φ	0,100	\$	-	\$	_	\$	0,011	\$	05	0%	0%	99%	1%
Uncollectable Write-Offs	\$	88,729	\$	-	\$	-	\$	87,830	\$	899	0%	0%	99%	1%
SUBTOTAL: CUSTOMER SERVICES	\$		\$	-	\$	-	\$	2,102,877	\$	21,525	0%	0%	99%	1%
4100530 - METER SERVICES	1.9	2,124,402	Э		Þ	-	Þ	2,102,077	Þ	21,323	U%	0%	99%	170
Full Time Wages	\$	583,096	\$		\$	288,594	\$	288,594	\$	5,908	0%	49%	49%	1%
Overtime Wages	\$	77.664	\$	-	\$	38,438	\$	38,438	\$	787	0%	49%	49%	1%
		77,004			\$	30,430	\$	30,430	\$	101		49% 49%	49%	1%
Part Time Wages	\$	040.055	\$	-		405 440		405 440		0.450	0% 0%			1%
Fringe Benefits	\$	213,055 14.869	\$	-	\$	105,448	\$	105,448	\$	2,159	0% 0%	49% 49%	49% 49%	1%
Payroll Taxes	\$,	\$	-	\$	7,359	\$	7,359	\$	151				
Telephone	\$	2,448	\$	-	\$	1,212	\$	1,212	\$	25	0%	49%	49%	1%
Supplies	\$	4,080	\$	-	\$	2,019	\$	2,019	\$	41	0%	49%	49%	1%
Training & Education	\$	2,040	\$	-	\$	1,010	\$	1,010	\$	21	0%	49%	49%	1%
Fuel	\$	44,799	\$	-	\$	22,173	\$	22,173	\$	454	0%	49%	49%	1%
Equipment	\$	-	\$	-	\$	-	\$	-	\$	-	0%	49%	49%	1%
Vehicle Expense	\$	29,120	\$	-	\$	14,412		14,412	\$	295	0%	49%	49%	1%
Furniture & Small Tools <\$5000	\$	15,300	\$	-	\$	7,572	\$	7,572	\$	155	0%	49%	49%	1%
Contract Services	\$	10,200	\$	-	\$	5,048	\$	5,048	\$	103	0%	49%	49%	1%
Infrastructure Repairs	\$	35,700	\$	-	\$	17,669	\$	17,669	\$	362	0%	49%	49%	1%
Meter Service Installations	\$	31,620	\$	-	\$	15,650	\$	15,650	\$	320	0%	49%	49%	1%
Meter Service Change outs	\$	2,060,000	\$	-	\$	2,039,127	\$	-	\$	20,873	0%	99%	0%	1%
SUBTOTAL: METER SERVICES	\$	3,123,990	\$		\$	2,565,732	4	526,605	\$	31.653	0%	82%	17%	1%

Cost of Service Analysis

Budget Categories		al Revenue quirements	С	ommodity	Capacity	(Customer	P	Fire Protection		Basis of Cla	ssification	
	FY	2016/17		(COM)	(CAP)		(CA)		(FP)	(COM)	(CAP)	(CA)	(FP)
4100030 - ADMINISTRATIVE SERVICES													
Full Time Wages	\$	622,559	\$	-	\$ 585,441	\$		\$	12,216	0%	94%	4%	2%
Overtime Wages	\$	148,096	\$	-	\$ 139,266	\$	5,924	\$	2,906	0%	94%	4%	2%
Fringe Benefits	\$	165,784	\$	-	\$ 155,899	\$	6,631	\$	3,253	0%	94%	4%	2%
Retiree Health Care	\$	364,140	\$	-	\$ 342,429	\$	14,566	\$	7,145	0%	94%	4%	2%
Payroll Taxes	\$	15,875	\$	-	\$ 14,929	\$	635	\$	312	0%	94%	4%	2%
Utilities-Electricity	\$	50,812	\$	-	\$ 47,782	\$	2,032	\$	997	0%	94%	4%	2%
Utilities-Water Usage	\$	10,706	\$	-	\$ 10,068	\$	428	\$	210	0%	94%	4%	2%
Utilities-Natural Gas	\$	5,406	\$	-	\$ 5,084	\$	216	\$	106	0%	94%	4%	2%
Utilities-Sanitation	\$	9,328	\$	-	\$ 8,772	\$	373	\$	183	0%	94%	4%	2%
Telephone	\$	26,520	\$	-	\$ 24,939	\$	1,061	\$	520	0%	94%	4%	2%
Supplies	\$	9,180	\$	-	\$ 8,633	\$	367	\$	180	0%	94%	4%	2%
Subs, Publications & Memberships	\$	24,480	\$	-	\$ 23,020	\$	979	\$	480	0%	94%	4%	2%
Training & Education	\$	3,060	\$	-	\$ 2,878	\$	122	\$	60	0%	94%	4%	2%
Travel & Meetings	\$	510	\$	-	\$ 480	\$	20	\$	10	0%	94%	4%	2%
Marketing Promotions	\$	63,750	\$	-	\$ 59,949	\$	2,550	\$	1,251	0%	94%	4%	2%
Legal Notices	\$	3,060	\$	-	\$ 2,878	\$	122	\$	60	0%	94%	4%	2%
Fuel	\$	5,450	\$	-	\$ 5,125	\$	218	\$	107	0%	94%	4%	2%
Vehicle Expense	\$	1,040	\$	-	\$ 978	\$	42	\$	20	0%	94%	4%	2%
Furniture & Small Tools <\$5000	\$	-	\$	-	\$ -	\$	-	\$	-	0%	94%	4%	2%
Computer Related Equip <\$5000	\$	45,900	\$	-	\$ 43,163	\$	1,836	\$	901	0%	94%	4%	2%
Contract Services	\$	114,750	\$	-	\$ 107,908	\$	4,590	\$	2,252	0%	94%	4%	2%
Insurance	\$	239,700	\$	-	\$ 225,408	\$	9,588	\$	4,704	0%	94%	4%	2%
Legal	\$	265,200	\$	-	\$ 249,388	\$	10,608	\$	5,204	0%	94%	4%	2%
Federal, State & Local Fees	\$	37,740	\$	-	\$ 35,490	\$	1,510	\$	741	0%	94%	4%	2%
Building Maintenance	\$	15,300	\$	-	\$ 14,388	\$	612	\$	300	0%	94%	4%	2%
Vandalism	\$	10,200	\$	-	\$ 9,592	\$		\$	200	0%	94%	4%	2%
Cost Allocations Paid	\$	1,338,372	\$	-	\$ 1,258,574	\$	53,535	\$	26,262	0%	94%	4%	2%
Contract Services	\$	18,564	\$	-	\$ 17,457	\$	743	\$	364	0%	94%	4%	2%
SUBTOTAL: ADMINISTRATIVE SERVICES	\$	3,615,481	\$	-	\$ 3,399,917	\$	144,619	\$	70,945	0%	94%	4%	2%
4100010 - CAPITAL PURCHASES													
Capital Purchases	\$	-	\$		\$ -	\$	-	\$	-	0%	100%	0%	0%
SUBTOTAL: CAPITAL PURCHASES	\$	-	44	-	\$ -	\$	-	\$	-	0%	0%	0%	0%
TOTAL OPERATING EXPENSES	\$ 1	9,172,890	\$	4,060,481	\$ 11,949,468	\$	2,926,036	\$	236,905	21%	62%	15%	1%

Cost of Service Analysis

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

Budget Categories	Total Reve Requirem		Commodity	C	Capacity	C	Customer	Pr	Fire otection		Basis of Cla	ssification	
	FY 2016	/17	(COM)		(CAP)		(CA)		(FP)	(COM)	(CAP)	(CA)	(FP)
Debt Service Payments													
Outstanding Debt	\$	- \$	-	\$	-	\$	-	\$	-	0%	100%	0%	0%
New Debt Issue - SRF Loan	\$	- \$	-	\$	-	\$	-	\$	-	0%	100%	0%	0%
New Debt Issue - Revenue Bond	\$	- \$	-	\$	-	\$	-	\$	-	0%	100%	0%	0%
Total Debt Service Payments	\$	- \$	-	\$	-	\$	-	\$	-	0%	0%	0%	0%
Capital Expenditures													
Rate Funded Capital Expenses	\$	- \$	-	\$	-	69	-	\$	-	0%	98%	0%	2%
TOTAL REVENUE REQUIREMENTS	\$ 19,172	890 \$	4,060,481	\$ 1	1,949,468	\$	2,926,036	\$	236,905	21%	62%	15%	1%
Less: Non-Rate Revenues													i
Water Permit	\$ (20	800) \$	-	\$	-	\$	(20,543)	\$	(257)	0%	0%	99%	1%
Penalty/Late Fees	\$ (348	500) \$	-	\$	-	\$	(344,194)	\$	(4,306)	0%	0%	99%	1%
Plan Check Fees	\$ (26	000) \$	-	\$	-	\$	(25,679)	\$	(321)	0%	0%	99%	1%
Water Service Fees	\$ (624	200) \$	-	\$	-	\$	(616,487)	\$	(7,713)	0%	0%	99%	1%
Meter Installation Fees	\$ (57	200) \$	-	\$	-	\$	(56,493)	\$	(707)	0%	0%	99%	1%
Service Call Fees	\$ (416	200) \$	-	\$	-	\$	(411,057)	\$	(5,143)	0%	0%	99%	1%
Standby Fees	\$ (93	600) \$	-	\$	-	\$	(92,443)	\$	(1,157)	0%	0%	99%	1%
Reimb-Other (4)	\$	- \$	-	\$	-	\$	- 1	\$	-	0%	0%	0%	0%
Connection Fees	\$	- \$	-	\$	-	\$	-	\$	-	0%	0%	0%	0%
WATER SOURCE FEES	\$	- \$	-	\$	-	\$	-	\$	-	0%	0%	0%	0%
PASS THROUGH (5)	\$	- \$	-	\$	-	\$	-	\$	-	0%	0%	0%	0%
MISCELLANEOUS REVENUE	\$	- \$	-	\$	-	\$	-	\$	-	0%	0%	0%	0%
INTEREST INCOME (6)	\$ (99	037) \$	(20,974)	\$	(61,724)	\$	(15,114)	\$	(1,224)	21%	62%	15%	1%
INTEREST INCOME (6)	\$	- '\$	· -	\$	- 1	\$	- 1	\$	- 1	21%	62%	15%	1%
Revenue from Property Sale (7)	\$	- \$	-	\$	-	\$	-	\$	-	21%	62%	15%	1%
NET REVENUE REQUIREMENTS	\$ 17,487	353 \$	4,039,506	\$ 1	1,887,744	\$	1,344,025	\$	216,078				
Allocation of Revenue Requirements		0.0%	23.1%		68.0%		7.7%		1.2%				

Net Revenue Reqt. Check from Financial Plan \$ 17,487,353

Classification of Expenses, continued Adjustments to Classification of Expenses					
Adjustment to Current Rate Level:	Total	(COM)	(CAP)	(CA)	(FP)
FY 2016/17 Target Rate Rev. After Rate Increases	\$19,119,648				
Projected Rate Revenue at Current Rates	\$18,122,889				
FY 2016/17 Projected Rate Increase	5.5%				
Adjusted Net Revenue Req'ts	\$ 19,119,648	\$ 4,416,560	\$ 12,997,363	\$ 1,469,478	\$ 236,247
Percent of Revenue		23.1%	68.0%	7.7%	1.2%

Water Cost of Service Analysis

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

Development of the BASE CAPACITY Allocation	ation Factor			
Customer Class	FY 2013/14 Volume (hcf) ¹	% Adjustment for Conservation ²	Estimated Volume Adjusted for Conservation	Percent of Total Volume
Treated Water:				
Single Family Residential	5,920,728	28%	4,262,924	65.1%
Multi-Family Residential	828,615	28%	596,603	9.1%
Commercial	964,394	28%	694,364	10.6%
Irrigation	97,773	28%	70,397	1.1%
Municipal Irrigation	441,482	28%	317,867	4.9%
Fire	-	28%	-	0.0%
Other	841,648	28%	605,987	9.3%
Total: Recurring Consumption	9,094,640		6,548,141	100%
Other Non-Recurring Consumption				
Commercial Flow Meter	51,619	28%	37,166	0.6%
Municipal Flow Meter	3,414	28%	2,458	0.0%
Intertie	134,101	28%	96,553	1.4%
Total Non-Recurring Consumption	189,134		136,176	2.0%

^{1.} Consumption data is based on the City of Victorville's FY 2013/14 customer data. File: VWD14 Revenue Model Meter.xls.

Commodity Related Costs: These costs are associated with the total consumption (flow) of water over a specified period of time (e.g. annual).

Development of the CAPACITY (MAX MONT	H) Allocation Fa	actors		
Customer Class	Average Monthly Use (hcf)	Peak Monthly Use ¹ (hcf)	Peak Month Factor	Max Month Capacity Factor
Treated Water:			_	
Single Family Residential	493,394	725,081	1.47	64.0%
Multi-Family Residential	69,051	94,792	1.37	8.4%
Commercial	80,366	114,114	1.42	10.1%
Irrigation	8,148	15,123	1.86	1.3%
Municipal Irrigation	36,790	74,758	2.03	6.6%
Fire	0	0	0.00	0.0%
Other	70,137	109,836	1.57	9.7%
Total: Recurring Consumption	757,887	1,133,704	1.50	100%
Other Non-Recurring Consumption				
Commercial Flow Meter	4,302	9,240	2.15	0.7%
Municipal Flow Meter	285	616	2.17	0.0%
Intertie	11,175	129,962	11.63	10.2%
Total Non-Recurring Consumption	15,761	139,818	8.87	11.0%

^{1.} Based on peak monthly data (peak day data not available).

Capacity Related Costs: Costs associated with the maximum demand required at one point in time or the maximum size of facilities required to meet this demand.

^{2.} Assumes the District will meet the 28% conservation mandate from the State of CA, as noted in the draft usage analysis released 4/28/2015 by the State Water Resources Control Board.

Water Cost of Service Analysis

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

Development of the Customer Allocation Factor						
Customer Class	Number of Meters ¹	Percent of Total				
Treated Water:						
Single Family Residential	32,862	93.53%				
Multi-Family Residential	596	1.70%				
Commercial	781	2.22%				
Irrigation	58	0.17%				
Municipal Irrigation	200	0.57%				
Fire	356	1.01%				
Other ²	282	0.80%				
Total: Recurring Consumption	35,135	100.00%				
Other Non-Recurring Consumption						
Commercial Flow Meter	36	0.10%				
Municipal Flow Meter	19	0.05%				
Intertie	3	0.01%				
Total: Non-Recurring Meters	58	0.16%				

Number of meters is based on the number of customers billed a fixed and/or variable charge in June 2014, except for intertie customers. File: VWD14 Revenue Model Meter.xls.

Customer Related Costs: Costs associated with having a customer on the water system. These costs vary with the addition or deletion of customers on the system. Examples: Meter-reading, Postage and billing.

Development of the Water Production Allocation Factor - Step 1							
Current Water Production Estimates ¹	Amount (AF)	Amount (ccf)	Amt./User/ Month (hcf)				
Free Production Allowance ²	15,572	6,783,163	16.06				
Total Production ³	21,476	9,354,946	22.15				

Development of the Water Production Allocation Factor - Step 2	Free Production Allowance	Additional Supply Required	Total
Estimated Total Production (AF)	15,572	5,904	21,476
Estimated Total Production (ccf)	6,783,163	2,571,782	9,354,946
Water Production Allocation Factor	73%	27%	100%

^{1.} Provided via teleconference with District Staff on 8/3/2015.

^{2.} Other customers consists primarily of governmental customers (the City, special districts, other agencies) and churches.

^{2.} Free Production Allowance is established annually by the court.

^{3.} Updated total production amount was provided by District Staff on 8/3/2015.

VICTORVILLE WATER DISTRICT WATER RATE STUDY Water Cost of Service Analysis/Rate Design Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

Free Production Allowance Analysis						
Description	HCF					
FY 2013-14 Production ¹	10,435,697					
Free Production Allowance	<u>6,783,163</u>					
Excess Production	3,652,534					
Conservation Equivalent ²	35%					

- 1. Per District's Production Data history.
- 2. If conservation exceeds 35%, this analysis will no longer accurately asses the marginal cost of production as no groundwater replenishment will be required.

Development of the Marginal Cost of Groundwater Replenishment ¹							
Fiscal Year	Description	Acre Foot Cost	HCF Cost				
2015-16	Mojave Basin Area Watermaster	\$484	\$1.11				
2016-17	Mojave Basin Area Watermaster	\$522	\$1.20				

Development of the Marginal Cost Of Purchased Water ²						
Fiscal Year	Description	Acre Foot Cost	HCF Cost			
2015-16	Mojave Basin Area Watermaster	\$125	\$0.29			

Developme	Development of the Marginal Cost Of Utilities-Production Power ³						
Fiscal Year	Year						
2015-16	Budget Adjustment Utilities-Production Power ⁴	\$130,500					
2015-16	Consumption Change	2,599,457					
2015-16	Per HCF Cost	\$0.05					

- Acre Foot Costs from the March 30, 2015 Mojave Basin Area Watermaster Memorandum Re: Adoption of Watermaster's Administrative Budget and Assessment Rates for Water Year 2015-16.
- 2. Per Acre Foot Cost is \$125 and represent delivery costs, per District Staff.
- 3. Net change in budget figure from VWD Conservation Adjustments.xlsx
- 4. Per VWD Conservation Adjustments.xlsx file provided 11/23/2015.

OBJECT	DESCRIPTION	CPI Factor	2016	2017	2018	2019	2020	2021
53050	Groundwater Replenishment	8	\$1.111	\$1.198	\$1.294	\$1.398	\$1.510	\$1.630
53030	Purchased Water	7	\$0.287	\$0.306	\$0.325	\$0.347	\$0.369	\$0.393
52050	Utilities-Production Power	6	<u>\$0.050</u>	<u>\$0.053</u>	<u>\$0.056</u>	\$0.058	<u>\$0.061</u>	<u>\$0.065</u>
	Marginal Cost Per HCF - Production		\$1.448	\$1.557	\$1.675	\$1.803	\$1.940	\$2.088
Adjustmen	t for Non-revenued Water (System Loss)	12.3%	\$0.18	<u>\$0.192</u>	\$0.207	\$0.222	\$0.239	\$0.258
	Marginal Cost Per HCF - Consumption		\$1.627	\$1.749	\$1.882	\$2.025	\$2.180	\$2.346

Water Cost of Service Analysis/Rate Design Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

ALLOCATION OF WATER REVENUE REQUIREMENTS:

Fixed vs. Variable Split, Five Year Transition:

Fixed-Variable %'s for Five-Year Period	COSA Split FY 2016/17	FY 2016/17	FY 2017/18	FY 2018/19	FY 2019/20	FY 2020/21
Fixed	77%	40%	39%	38%	36%	35%
Variable	23%	60%	61%	62%	64%	65%
Total	100%	100%	100%	100%	100%	100%

Classification Components	Cost-of- Service Split	FY 2016/17	FY 2017/18	FY 2018/19	FY 2019/20	FY 2020/21
Commodity-Related Costs	23.1%	59.9%	61.1%	62.3%	63.6%	65.2%
Capacity-Related Costs	68.0%	34.9%	33.8%	32.7%	31.6%	30.1%
Customer-Related Costs	7.7%	3.9%	3.8%	3.7%	3.6%	3.4%
Fire Protection-Related Costs	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%
Net Revenue Requirement	100%	100%	100%	100%	100%	100%

Allocation of Target Rate Revenue - FY 2016/17 thru FY 2020/21:

Classification Components	Cost-of- Service Split	FY 2016/17	FY 2017/18	FY 2018/19	FY 2019/20	FY 2020/21
Commodity-Related Costs	\$ 4,416,560	\$11,451,774	\$12,397,256	\$13,421,443	\$14,530,932	\$15,732,875
Capacity-Related Costs	\$12,997,363	\$ 6,676,755	\$ 6,867,793	\$ 7,051,933	\$ 7,227,162	\$ 7,262,823
Customer-Related Costs	\$ 1,469,478	\$ 754,872	\$ 776,471	\$ 797,289	\$ 817,101	\$ 821,133
Fire Protection-Related Costs	\$ 236,247	\$ 236,247	\$ 250,736	\$ 266,114	\$ 282,435	\$ 297,969
Target Rate Revenue	\$19,119,648	19,119,648	20,292,256	21,536,780	22,857,630	24,114,800

Meter Equivalency Factors Used in Fixed Charge Calculation:

	Standar	d Meters	Fire Servi	ce Meters
Meter Size	Meter Capacity (gpm) ¹	Equivalency to 3/4-inch	Meter Capacity (gpm)	Equivalency to 3/4-inch
	Displac	cement	Displac	ement 1
3/4 inch	30	1.00	30	1.00
1 inch	50	1.67	50	1.67
1.5 inch	100	3.33	100	3.33
2 inch	160	5.33	160	5.33
	Compound 7	Type Class I	Fire Service	Type I & II 2
3 inch	320	10.67	350	11.67
4 inch	500	16.67	700	23.33
6 inch	1,000	33.33	1,600	53.33
	Turbine Class II			
8 inch	2,800	93.33	2,800	93.33
10 inch	4,200	140.00	4,400	146.67

^{1.} Per AWWA M-1 Table VI.2-5.

^{2.} Capacity factors are for Fire Service Type I and II meters, from AWWA M-6 Table 5-3.

Water Cost of Service Analysis/Rate Design

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

Allocation of Net Revenue Requirements - FY 2016/17

			Cl		Cost of	% of COS Net					
Customer Classes	Con	nmodity-	(Capacity-	C	ustomer-		Fire	S	ervice Net	Revenue
	R	elated		Related	- 1	Related	Pi	otection-	R	lev. Reqts	Reqts
Single Family Residential	\$ 7	7,455,253	\$	4,270,240	\$	706,037	\$	-	\$	12,431,529	65.0%
Multi-Family Residential	\$ 1	,043,374	\$	558,261	\$	12,805	\$	-	\$	1,614,440	8.4%
Commercial	\$ 1	,214,344	\$	672,055	\$	16,780	\$	-	\$	1,903,179	10.0%
Irrigation	\$	123,114	\$	89,064	\$	1,246	\$	-	\$	213,424	1.1%
Municipal Irrigation	\$	555,905	\$	440,274	\$	4,297	\$	-	\$	1,000,476	5.2%
Fire	\$	-	\$	-	\$	7,649	\$	236,247	\$	243,896	1.3%
Other	\$ 1	,059,785	\$	646,860	\$	6,059	\$	· -	\$	1,712,704	9.0%
Total Net Revenue Requirement	\$11	.451.774	\$	6.676.755	\$	754.872	\$	236.247	\$	19.119.648	100%

CALCULATION OF MONTHLY FIXED METER SERVICE CHARGES FOR FY FY 2016/17 Net Revenue Requirements (40% Fixed / 60% Variable) FY 2016/17 Number of Meters by Class and Size¹ Total 1.5 inch 3 inch 3/4 inch 1 inch 2 inch 4 inch 6 inch 8 inch 10 inch Single Family Residential 32.862 31,493 1,369 Multi-Family Residential 122 109 154 113 35 17 27 17 596 Commercial 223 155 149 198 23 15 12 781 2 Irrigation 25 6 58 Municipal Irrigation 20 25 86 53 3 6 3 200 74 37 39 65 21 282 Other 26 13 **Total Meters/Accounts** 31,941 1,700 437 454 93 63 45 34,779 Hydraulic Capacity Factor 1.67 3.33 5.33 10.67 16.67 33.33 93.33 140.00 1.00 **Total Equivalent Meters** 31,941 2,833 1,457 2,421 992 1,050 1,267 4,200 1,120 47,281 Monthly Fixed Service Charges Customer Costs (\$/Acct/month)3 \$1.79 \$1.79 \$1.79 \$1.79 \$1.79 \$1.79 \$1.79 \$1.79 \$1.79 Capacity Costs (\$/Acct/month)4 \$11.77 \$19.61 \$39.23 \$62.76 \$125.52 \$196.13 \$392.26 \$1,098.33 \$1,647.50 **Total Monthly Meter Charge** \$13.56 \$21,40 \$41.02 \$64.55 \$127.31 \$197.92 \$394.05 \$1,100.12 \$1,649.29 Annual Fixed Costs Allocated to Monthly Meter Charges **Customer Costs** 747,223 6.676.755 Capacity Costs **Total Fixed Meter Costs** \$ 7,423,978 Annual Revenue from Monthly Meter Charges **Customer Charges** 686,249 36,524 \$ 9,389 9,754 1,998 1,354 \$ 816 \$ 967 \$ 172 **\$ 747,223** Capacity Charges 4,510,527 400,107 205,702 341,927 140,085 148,275 178,871 593,100 158,160 6,676,755 Total Revenue from Monthly Meter Charges \$ 5,196,776 \$ 436,632 215,091 351,681 142,083 \$ 149,629 179,688 594,067 158,332 \$ 7,423,978

CALCULATION OF MONTH	V FIXED METER SERVIC	E CHARGES FOR FY FY 2016/17

Net Revenue	Requirements	(40% Fixed	/60% Variable)

Noushan of Mariana has Olara and Olara								FY 2016/17									Total
Number of Meters by Class and Size ⁵	3	/4 inch	1 inc	:h	1.5 inch	2 inch		3 inch	4	inch inch	6 inch	8	inch	10) inch	1	lotai
Fire		-			-	-		6		31	79		170		39		325
Total Meters/Accounts					-	-		6		31	79		170		39		325
Hydraulic Capacity Factor ²		1.00		1.67	3.33	5.	33	11.67		23.33	53.33		93.33		146.67	ı	
Total Equivalent Meters		-		-	-		-	70		723	4,213		15,867		5,720	ı	26,593
Monthly Fixed Service Charges																ı	
Customer Costs (\$/Acct/month) ³		\$1.96		1.96	\$1.96	\$1.9	96	\$1.96		\$1.96	\$1.96		\$1.96		\$1.96	ı	
Capacity Costs (\$/Acct/month) ⁴		\$0.74		1.23	\$2.47	\$3.9	95	8.64		17.27	39.48		69.10		108.58	ı	
Total Monthly Meter Charge		\$2.70	,	3.20	\$4.43	\$5.9)1	\$10.60		\$19.24	\$41.44		\$71.06		\$110.54		
Annual Fixed Costs Allocated to Monthly Mete	r Ch	arges															
Customer Costs	\$	7,649														ı	
Capacity & Fire Protection Costs		236,247														ı	
Total Fixed Meter Costs	\$	243,896														ı	
Annual Revenue from Monthly Meter Charges																ı	
Customer Charges	\$	-	\$	-	\$ -	\$ -		\$ 141	\$	730	\$ 1,859	\$	4,001	\$	918	\$	7,649
Capacity Charges							_	622		6,426	37,430		140,955		50,815	ı —	236,247
Total Revenue from Monthly Meter Charges	\$	-	\$	-	\$ -	\$ -		\$ 763	\$	7,155	\$ 39,289	\$	144,956	\$	51,733	\$	243,896

^{1.} Number of meters by Class and Size are based on June 2014 customer data. File: VWD14 Revenue Model Meter.xls. Excludes Municipal Well customer, Flow meters and Intertie Connections.

^{2.} Source: AWWA Manual M1. "Principles of Water Rates, Fees, and Charges", Table VI.2-5.

Assumes displacement meters for 3/4 - 2 inch meters, compound meters for 3 - 6 inch and turbine class II meters for 8 and 10 inch meters.

^{3.} Customer costs are allocated to each customer by dividing the total customer costs by the total number of customers.

^{4.} Capacity costs are allocated by meter size and the hydraulic capacity of the meter.

^{5.} Number of fire meters by size were provided by District Staff on 8/3/2015 (file: VWD Rate Analysis 08-03-2015.xlsx.)

Water Cost of Service Analysis/Rate Design

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

Allocation of Net Revenue Requirements - FY 2017/18

Net Revenue Requirements (39% Fixed / 61%	Variable)					
		Classification	Components		Cost of	% of COS Net
Customer Classes	Commodity-	Capacity-	Customer-	Fire	Service Net	Revenue
	Related	Related	Related	Protection-	Rev. Reqts	Reqts
Single Family Residential	\$ 8,070,774	\$ 4,392,422	\$ 726,238	\$ -	\$ 13,189,433	65.0%
Multi-Family Residential	\$ 1,129,517	\$ 574,234	\$ 13,171	\$ -	\$ 1,716,923	8.5%
Commercial	\$ 1,314,603	\$ 691,284	\$ 17,260	\$ -	\$ 2,023,146	10.0%
Irrigation	\$ 133,278	\$ 91,613	\$ 1,282	\$ -	\$ 226,173	1.1%
Municipal Irrigation	\$ 601,801	\$ 452,872	\$ 4,420	\$ -	\$ 1,059,093	5.2%
Fire	\$ -	\$ -	\$ 7,867	\$ 250,736	\$ 258,604	1.3%
Other	\$ 1,147,283	\$ 665,368	\$ 6,232	\$ -	\$ 1,818,884	9.0%
Total Net Revenue Requirement	\$12,397,256	\$ 6,867,793	\$ 776,471	\$ 250,736	\$ 20,292,256	100%

CALCULATION OF MONTHLY FIXED METER SERVICE CHARGES FOR FY FY 2017/18

Net Revenue Requirements (39% Fixed / 61% Variable)

Number of Materia by Olean and Olean					FY 2017/18					Total
Number of Meters by Class and Size ¹	3/4 inch	1 inch	1.5 inch	2 inch	3 inch	4 inch	6 inch	8 inch	10 inch	Total
Single Family Residential	31,682	1,377	-	-	-	-	-	-	-	33,059
Multi-Family Residential	123	110	155	114	35	17	27	17	2	600
Commercial	224	156	150	199	23	15	2	12	4	786
Irrigation	9	5	9	25	6	4	-	-	-	58
Municipal Irrigation	20	25	87	53	3	6	4	3	-	201
Other	74	37	39	65	26	21	5	13	2	284
Total Meters/Accounts	32,133	1,710	440	457	94	63	38	45	8	34,988
Hydraulic Capacity Factor ²	1.00	1.67	3.33	5.33	10.67	16.67	33.33	93.33	140.00	
Total Equivalent Meters	32,133	2,850	1,465	2,436	998	1,056	1,274	4,225	1,127	47,565
Monthly Fixed Service Charges		•	·							
Customer Costs (\$/Acct/month) ³	\$1.83	\$1.83	\$1.83	\$1.83	\$1.83	\$1.83	\$1.83	\$1.83	\$1.83	
Capacity Costs (\$/Acct/month)4	\$12.03	\$20.05	\$40.11	\$64.17	\$128.35	\$200.54	\$401.08	\$1,123.02	\$1,684.53	
Total Monthly Meter Charge	\$13.86	\$21.88	\$41.94	\$66.00	\$130.18	\$202.37	\$402.91	\$1,124.85	\$1,686.36	
Annual Fixed Costs Allocated to Monthly Mete	r Charges									
Customer Costs	\$ 768,603									
Capacity Costs	6,867,793									
Total Fixed Meter Costs	\$ 7,636,396									
Annual Revenue from Monthly Meter Charges										
Customer Charges	\$ 705,884	\$ 37,569	\$ 9,658	\$ 10,033	\$ 2,055	\$ 1,392	\$ 840	\$ 994	\$ 177	\$ 768,603
Capacity Charges	4,639,584	411,555	211,588	351,710	144,093	152,518	183,989	610,070	162,685	6,867,793
Total Revenue from Monthly Meter Charges	\$ 5,345,468	\$ 449,125	\$ 221,245	\$ 361,744	\$ 146,148	\$ 153,910	\$ 184,829	\$ 611,065	\$ 162,862	\$ 7,636,396

CALCULATION OF MONTHLY FIXED METER SERVICE CHARGES FOR FY FY 2017/18

Net Revenue Requirements (39% Fixed / 61% Variable)

Number of Meters by Class and Size ⁵								FY 2017/18							Total
Number of Meters by Class and Size	3/4	inch	1 inch		1.5 inch	2 inch		3 inch	4 inch	6 inch		8 inch	1	0 inch	Total
Fire		-	-		-	-		6.0	31	79		171		39	327
Total Meters/Accounts		-	-		-			6	31	79		171		39	327
Hydraulic Capacity Factor ²		1.00	1.6	7	3.33	5.3	3	11.67	23.33	53.33	3	93.33		146.67	
Total Equivalent Meters		-	-		-	-		70	728	4,239		15,962		5,754	26,753
Monthly Fixed Service Charges															
Customer Costs (\$/Acct/month) ³		\$2.01	\$2.0	1	\$2.01	\$2.0	1	\$2.01	\$2.01	\$2.01		\$2.01		\$2.01	
Capacity Costs (\$/Acct/month) ⁴		\$0.78	\$1.30	0	\$2.60	\$4.1	7	9.11	18.22	41.65		72.90		114.55	
Total Monthly Meter Charge		\$2.79	\$3.3 ⁻	1	\$4.61	\$6.1	7	\$11.12	\$20.23	\$43.66		\$74.90		\$116.56	
Annual Fixed Costs Allocated to Monthly Meter	r Char	ges													
Customer Costs	\$	7,867													
Capacity & Fire Protection Costs		250,736													
Total Fixed Meter Costs	\$	258,604													
Annual Revenue from Monthly Meter Charges															
Customer Charges	\$	-	\$ -	\$	-	\$ -	5	\$ 145	\$ 750	\$ 1,912	\$	4,115	\$	944	\$ 7,867
Capacity Charges								660	 6,820	39,726		149,600		53,931	 250,736
Total Revenue from Monthly Meter Charges	\$	-	\$ -	\$	-	\$ -	9	\$ 805	\$ 7,570	\$ 41,638	\$	153,715	\$	54,875	\$ 258,604

- 1. Number of meters by Class and Size are based on June 2014 customer data. File: VWD14 Revenue Model Meter.xls. Excludes Municipal Well customer, Flow meters and Intertie Connections.
- 2. Source: AWWA Manual M1, "Principles of Water Rates, Fees, and Charges", Table VI.2-5.

Assumes displacement meters for 3/4 - 2 inch meters, compound meters for 3 - 6 inch and turbine class II meters for 8 and 10 inch meters.

- 3. Customer costs are allocated to each customer by dividing the total customer costs by the total number of customers.
- 4. Capacity costs are allocated by meter size and the hydraulic capacity of the meter.
- 5. Number of fire meters by size were provided by District Staff on 8/3/2015 (file: VWD Rate Analysis 08-03-2015.xlsx.)

Water Cost of Service Analysis/Rate Design

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

Allocation of Net Revenue Requirements - FY 2018/19

Net Revenue Requirements (38% Fixed / 62%	Variable)					
		Classification	Components		Cost of	% of COS Net
Customer Classes	Commodity-	Capacity-	Customer-	Fire	Service Net	Revenue
	Related	Related	Related	Protection-	Rev. Reqts	Reqts
Single Family Residential	\$ 8,737,533	\$ 4,510,192	\$ 745,710	\$ -	\$ 13,993,435	65.0%
Multi-Family Residential	\$ 1,222,831	\$ 589,631	\$ 13,525	\$ -	\$ 1,825,987	8.5%
Commercial	\$ 1,423,207	\$ 709,819	\$ 17,723	\$ -	\$ 2,150,749	10.0%
Irrigation	\$ 144,289	\$ 94,069	\$ 1,316	\$ -	\$ 239,674	1.1%
Municipal Irrigation	\$ 651,518	\$ 465,014	\$ 4,538	\$ -	\$ 1,121,071	5.2%
Fire	\$ -	\$ -	\$ 8,078	\$ 266,114	\$ 274,193	1.3%
Other	\$ 1,242,065	\$ 683,208	\$ 6,399	\$ -	\$ 1,931,672	9.0%
Total Net Revenue Requirement	\$13,421,443	\$ 7,051,933	\$ 797,289	\$ 266,114	\$ 21,536,780	100%

CALCULATION OF MONTHLY FIXED METER SERVICE CHARGES FOR FY FY 2018/19

Net Revenue Requirements (38% Fixed / 62% Variable)

Number of Materia by Olean and Olean					FY 2018/19					Total
Number of Meters by Class and Size ¹	3/4 inch	1 inch	1.5 inch	2 inch	3 inch	4 inch	6 inch	8 inch	10 inch	Total
Single Family Residential	31,872	1,385	-	-	-	-	-	-		33,258
Multi-Family Residential	123	110	156	114	35	17	27	17	2	603
Commercial	226	157	151	200	23	15	2	12	4	790
Irrigation	9	5	9	25	6	4	-	-	-	59
Municipal Irrigation	20	25	87	54	3	6	4	3	-	202
Other	75	37	39	66	26	21	5	13	2	285
Total Meters/Accounts	32,325	1,720	442	459	94	64	38	46	8	35,198
Hydraulic Capacity Factor ²	1.00	1.67	3.33	5.33	10.67	16.67	33.33	93.33	140.00	
Total Equivalent Meters	32,325	2,867	1,474	2,450	1,004	1,063	1,282	4,251	1,133	47,850
Monthly Fixed Service Charges										
Customer Costs (\$/Acct/month) ³	\$1.87	\$1.87	\$1.87	\$1.87	\$1.87	\$1.87	\$1.87	\$1.87	\$1.87	
Capacity Costs (\$/Acct/month) ⁴	\$12.28	\$20.47	\$40.94	\$65.50	131.00	204.69	409.38	1,146.25	1,719.38	
Total Monthly Meter Charge	\$14.15	\$22.34	\$42.81	\$67.37	\$132.87	\$206.56	\$411.25	\$1,148.12	\$1,721.25	
Annual Fixed Costs Allocated to Monthly Mete	r Charges									
Customer Costs	\$ 789,211									
Capacity Costs	7,051,933									
Total Fixed Meter Costs	\$ 7,841,144									
Annual Revenue from Monthly Meter Charges										
Customer Charges	\$ 724,811	\$ 38,577	\$ 9,916	\$ 10,302	\$ 2,110	\$ 1,430	\$ 862	\$ 1,021	\$ 182	\$ 789,211
Capacity Charges	4,763,981	422,590	217,261	361,140	147,956	156,607	188,923	626,427	167,047	7,051,933
Total Revenue from Monthly Meter Charges	\$ 5,488,792	\$ 461,167	\$ 227,177	\$ 371,443	\$ 150,067	\$ 158,036	\$ 189,785	\$ 627,449	\$ 167,229	\$ 7,841,144

CALCULATION OF MONTHLY FIXED METER SERVICE CHARGES FOR FY FY 2018/19

Net Revenue Requirements (38% Fixed / 62% Variable)

Number of Meters by Class and Size ⁵								FY 2018/19							Total
Number of Meters by Class and Size	3/	4 inch	1 inch		1.5 inch	2 inch		3 inch	4 inch	6 inch		8 inch	1	10 inch	Total
Fire		-	1		-	1		6	31	80		172		39	329
Total Meters/Accounts								6	31	80		172		39	329
Hydraulic Capacity Factor ²		1.00	1.6	3 7	3.33	5.	33	11.67	23.33	53.33	:	93.33		146.67	
Total Equivalent Meters		-	-	-	-		-	71	732	4,264		16,058		5,789	26,913
Monthly Fixed Service Charges															
Customer Costs (\$/Acct/month) ³		\$2.05	\$2.0	15	\$2.05	\$2.0	05	\$2.05	\$2.05	\$2.05		\$2.05		\$2.05	
Capacity Costs (\$/Acct/month) ⁴		\$0.82	\$1.3	7	\$2.75	\$4.3	39	9.61	19.23	43.95		76.91		120.85	
Total Monthly Meter Charge		\$2.87	\$3.4	2	\$4.79	\$6.4	44	\$11.66	\$21.27	\$45.99		\$78.95		\$122.90	
Annual Fixed Costs Allocated to Monthly Meter	r Cha	rges													
Customer Costs	\$	8,078													
Capacity & Fire Protection Costs		266,114													
Total Fixed Meter Costs	\$	274,193													
Annual Revenue from Monthly Meter Charges															
Customer Charges	\$	-	\$ -		\$ -	\$ -		\$ 149	\$ 771	\$ 1,964	\$	4,226	\$	969	\$ 8,078
Capacity Charges				-			_	700	7,238	42,162	_	158,775		57,239	 266,114
Total Revenue from Monthly Meter Charges	\$	-	\$ -		\$ -	\$ -		\$ 850	\$ 8,009	\$ 44,126	\$	163,000	\$	58,208	\$ 274,193

- 1. Number of meters by Class and Size are based on June 2014 customer data. File: VWD14 Revenue Model Meter.xls. Excludes Municipal Well customer, Flow meters and Intertie Connections.
- 2. Source: AWWA Manual M1, "Principles of Water Rates, Fees, and Charges", Table VI.2-5.

Assumes displacement meters for 3/4 - 2 inch meters, compound meters for 3 - 6 inch and turbine class II meters for 8 and 10 inch meters.

- 3. Customer costs are allocated to each customer by dividing the total customer costs by the total number of customers.
- 4. Capacity costs are allocated by meter size and the hydraulic capacity of the meter.
- 5. Number of fire meters by size were provided by District Staff on 8/3/2015 (file: VWD Rate Analysis 08-03-2015.xlsx.)

Water Cost of Service Analysis/Rate Design

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

Allocation of Net Revenue Requirements - FY 2019/20

Net Revenue Requirements (36% Fixed / 64%	Variable)					
		Classification	Components		Cost of	% of COS Net
Customer Classes	Commodity-	Capacity-	Customer-	Fire	Service Net	Revenue
	Related	Related	Related	Protection-	Rev. Reqts	Reqts
Single Family Residential	\$ 9,459,824	\$ 4,622,263	\$ 764,240	\$ -	\$ 14,846,327	65.0%
Multi-Family Residential	\$ 1,323,917	\$ 604,282	\$ 13,861	\$ -	\$ 1,942,060	8.5%
Commercial	\$ 1,540,857	\$ 727,457	\$ 18,163	\$ -	\$ 2,286,477	10.0%
Irrigation	\$ 156,217	\$ 96,406	\$ 1,349	\$ -	\$ 253,972	1.1%
Municipal Irrigation	\$ 705,376	\$ 476,569	\$ 4,651	\$ -	\$ 1,186,597	5.2%
Fire	\$ -	\$ -	\$ 8,279	\$ 282,435	\$ 290,714	1.3%
Other	\$ 1,344,740	\$ 700,185	\$ 6,558	\$ -	\$ 2,051,484	9.0%
Total Net Revenue Requirement	\$14,530,932	\$ 7,227,162	\$ 817,101	\$ 282,435	\$ 22,857,630	100%

CALCULATION OF MONTHLY FIXED METER SERVICE CHARGES FOR FY FY 2019/20

Net Revenue Requirements (36% Fixed / 64% Variable)

Number of Materials by Oleve and Olevi					FY 2019/20					Total
Number of Meters by Class and Size ¹	3/4 inch	1 inch	1.5 inch	2 inch	3 inch	4 inch	6 inch	8 inch	10 inch	Total
Single Family Residential	32,063	1,394	-	-	-	-	-	-	-	33,457
Multi-Family Residential	124	111	157	115	36	17	27	17	2	607
Commercial	227	158	152	202	23	15	2	12	4	795
Irrigation	9	5	9	25	6	4	-	-	-	59
Municipal Irrigation	20	25	88	54	3	6	4	3	-	204
Other	75	38	40	66	26	21	5	13	2	287
Total Meters/Accounts	32,519	1,731	445	462	95	64	39	46	8	35,409
Hydraulic Capacity Factor ²	1.00	1.67	3.33	5.33	10.67	16.67	33.33	93.33	140.00	
Total Equivalent Meters	32,519	2,885	1,483	2,465	1,010	1,069	1,290	4,276	1,140	48,137
Monthly Fixed Service Charges								·		
Customer Costs (\$/Acct/month) ³	\$1.90	\$1.90	\$1.90	\$1.90	\$1.90	\$1.90	\$1.90	\$1.90	\$1.90	
Capacity Costs (\$/Acct/month) ⁴	\$12.51	\$20.85	\$41.70	\$66.73	\$133.45	\$208.52	\$417.05	\$1,167.73	\$1,751.60	
Total Monthly Meter Charge	\$14.41	\$22.76	\$43.61	\$68.63	\$135.36	\$210.43	\$418.95	\$1,169.63	\$1,753.50	
Annual Fixed Costs Allocated to Monthly Mete	r Charges									
Customer Costs	\$ 808,822									
Capacity Costs	7,227,162									
Total Fixed Meter Costs	\$ 8,035,984									
Annual Revenue from Monthly Meter Charges										
Customer Charges	\$ 742,821	\$ 39,535	\$ 10,163	\$ 10,558	\$ 2,163	\$ 1,465	\$ 884	\$ 1,047	\$ 186	\$ 808,822
Capacity Charges	4,882,359	433,091	222,660	370,114	151,633	160,498	193,617	641,993	171,198	7,227,162
Total Revenue from Monthly Meter Charges	\$ 5,625,180	\$ 472,626	\$ 232,822	\$ 380,672	\$ 153,795	\$ 161,963	\$ 194,501	\$ 643,040	\$ 171,384	\$ 8,035,984

CALCULATION OF MONTHLY FIXED METER SERVICE CHARGES FOR FY FY 2019/20

Net Revenue Requirements (36% Fixed / 64% Variable)

N 1 (M 1 0) 10: 5								FY 20°	9/20							Total
Number of Meters by Class and Size⁵	3	4 inch	1 inch		1.5 inch	2 incl	h	3 in	ch	4 inch	6 inc	h	8 inch	1	0 inch	Total
Fire		•	-		-		-		6	32		80	173		40	331
Total Meters/Accounts			-		-				6	32		80	173		40	331
Hydraulic Capacity Factor ²		1.00	1.	67	3.33		5.33		11.67	23.33	5	53.33	93.33		146.67	
Total Equivalent Meters		-		-	-		-		71	736	4	,290	16,154		5,824	27,075
Monthly Fixed Service Charges																
Customer Costs (\$/Acct/month) ³		\$2.09	\$2.0	9	\$2.09	\$	2.09		\$2.09	\$2.09	\$	2.09	\$2.09		\$2.09	
Capacity Costs (\$/Acct/month)4		\$0.87	\$1.4	15	\$2.90	\$	4.64		10.14	20.28	4	6.36	81.13		127.50	
Total Monthly Meter Charge		\$2.95	\$3.5	53	\$4.98	\$	6.72	\$	12.23	\$22.37	\$4	8.45	\$83.22		\$129.58	
Annual Fixed Costs Allocated to Monthly Meter	r Cha	irges														
Customer Costs	\$	8,279														
Capacity & Fire Protection Costs		282,435														
Total Fixed Meter Costs	\$	290,714														
Annual Revenue from Monthly Meter Charges																
Customer Charges	\$	-	\$ -		\$ -	\$	-	\$	153	\$ 790	\$ 2	,012	\$ 4,331	\$	993	\$ 8,279
Capacity Charges				-					743	7,682	44	,748	168,512		60,749	 282,435
Total Revenue from Monthly Meter Charges	\$	-	\$ -		\$ -	\$	-	\$	896	\$ 8,472	\$ 46	,760	\$ 172,843	\$	61,743	\$ 290,714

- 1. Number of meters by Class and Size are based on June 2014 customer data. File: VWD14 Revenue Model Meter.xls. Excludes Municipal Well customer, Flow meters and Intertie Connections.
- 2. Source: AWWA Manual M1, "Principles of Water Rates, Fees, and Charges", Table VI.2-5.

Assumes displacement meters for 3/4 - 2 inch meters, compound meters for 3 - 6 inch and turbine class II meters for 8 and 10 inch meters.

- 3. Customer costs are allocated to each customer by dividing the total customer costs by the total number of customers.
- 4. Capacity costs are allocated by meter size and the hydraulic capacity of the meter.
- 5. Number of fire meters by size were provided by District Staff on 8/3/2015 (file: VWD Rate Analysis 08-03-2015.xlsx.)

Water Cost of Service Analysis/Rate Design Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

Allocation of Net Revenue Requirements - FY 2020/21

Net Revenue Requirements (35% Fixed / 65%	Variable)					
		Classification	Cost of	% of COS Net		
Customer Classes	Commodity-	Capacity-	Customer-	Fire	Service Net	Revenue
	Related	Related	Rev. Reqts	Reqts		
Single Family Residential	\$10,242,305	\$ 4,645,071	\$ 768,011	\$ -	\$ 15,655,386	64.9%
Multi-Family Residential	\$ 1,433,426	\$ 607,264	\$ 13,929	\$ -	\$ 2,054,619	8.5%
Commercial	\$ 1,668,311	\$ 731,046	\$ 18,253	\$ -	\$ 2,417,610	10.0%
Irrigation	\$ 169,138	\$ 96,882	\$ 1,356	\$ -	\$ 267,376	1.1%
Municipal Irrigation	\$ 763,723	\$ 478,921	\$ 4,674	\$ -	\$ 1,247,317	5.2%
Fire	\$ -	\$ -	\$ 8,320	\$ 297,969	\$ 306,289	1.3%
Other	\$ 1,455,972	\$ 703,640	\$ 6,591	\$ -	\$ 2,166,203	9.0%
Total Net Revenue Requirement	\$ 15,732,875	\$ 7,262,823	\$ 821,133	\$ 297,969	\$ 24,114,800	100%

CALCULATION OF MONTHLY FIXED METER SERVICE CHARGES FOR FY FY 2020/21

Net Revenue Requirements (35% Fixed / 65% Variable)

North an of Materia has Olassa and Olas 1					FY 2020/21					Total
Number of Meters by Class and Size ¹	3/4 inch	1 inch	1.5 inch	2 inch	3 inch	4 inch	6 inch	8 inch	10 inch	I Olai
Single Family Residential	32,256	1,402	-	-	-	-	-	-	-	33,658
Multi-Family Residential	125	112	158	116	36	17	28	17	2	610
Commercial	228	159	153	203	24	15	2	12	4	800
Irrigation	9	5	9	26	6	4	-	-	-	59
Municipal Irrigation	20	26	88	54	3	6	4	3	-	205
Other	76	38	40	67	27	22	5	13	2	289
Total Meters/Accounts	32,715	1,741	448	465	95	65	39	46	8	35,621
Hydraulic Capacity Factor ²	1.00	1.67	3.33	5.33	10.67	16.67	33.33	93.33	140.00	
Total Equivalent Meters	32,715	2,902	1,492	2,480	1,016	1,075	1,297	4,302	1,147	48,426
Monthly Fixed Service Charges		, i	· ·	,	,	,	,	,	,	,
Customer Costs (\$/Acct/month) ³	\$1.90	\$1.90	\$1.90	\$1.90	\$1.90	\$1.90	\$1.90	\$1.90	\$1.90	
Capacity Costs (\$/Acct/month) ⁴	\$12.50	\$20.83	\$41.66	\$66.66	\$133.31	\$208.30	\$416.60	\$1,166.49	\$1,749.74	
Total Monthly Meter Charge	\$14.40	\$22.73	\$43.56	\$68.56	\$135.22	\$210.20	\$418.51	\$1,168.40	\$1,751.64	
Annual Fixed Costs Allocated to Monthly Meter	r Charges									
Customer Costs	\$ 812,813									
Capacity Costs	7,262,823									
Total Fixed Meter Costs	\$ 8,075,636									
Annual Revenue from Monthly Meter Charges										
Customer Charges	\$ 746,486	\$ 39,730	\$ 10,213	\$ 10,610	\$ 2,173	\$ 1,472	\$ 888	\$ 1,052	\$ 187	\$ 812,813
Capacity Charges	4,906,450	435,228	223,758	371,940	152,381	161,290	194,572	645,161	172,043	7,262,823
Total Revenue from Monthly Meter Charges	\$ 5,652,936	\$ 474,958	\$ 233,971	\$ 382,551	\$ 154,554	\$ 162,763	\$ 195,460	\$ 646,213	\$ 172,230	\$ 8,075,636

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

CALCULATION OF MONTHLY FIXED METER SERVICE CHARGES FOR FY FY 2020/21

Net Revenue Requirements (35% Fixed / 65% Variable)

Number of Meters by Class and Size ⁵							F'	Y 2020/21								Total
Number of Meters by Class and Size	3	3/4 inch	1 inch		1.5 inch	2 inch		3 inch	4 in	ch	6 inch		8 inch	10 inch		TOTAL
Fire		-	ı		-	-		6		32	81		174	40		333
Total Meters/Accounts		-			-	-		6		32	81		174	40		333
Hydraulic Capacity Factor ²		1.00	1.67	7	3.33	5.33	:	11.67		23.33	53.33	:	93.33	146.67		
Total Equivalent Meters		-	-		-	-		72		741	4,315		16,251	5,859		27,237
Monthly Fixed Service Charges																
Customer Costs (\$/Acct/month) ³		\$2.08	\$2.08	:	\$2.08	\$2.08		\$2.08		\$2.08	\$2.08		\$2.08	\$2.08		
Capacity Costs (\$/Acct/month)4		\$0.91	\$1.52	:	\$3.04	\$4.86		10.64		21.27	48.62		85.09	133.71		
Total Monthly Meter Charge		\$2.99	\$3.60		\$5.12	\$6.94		\$12.72	•	23.35	\$50.70		\$87.17	\$135.79		
Annual Fixed Costs Allocated to Monthly Mete	r Ch	arges														
Customer Costs	\$	8,320														
Capacity & Fire Protection Costs		297,969														
Total Fixed Meter Costs	\$	306,289														
Annual Revenue from Monthly Meter Charges																
Customer Charges	\$	-	\$ -	\$	-	\$ -	\$	154	\$	794	\$ 2,022	\$	4,352	\$ 998	\$	8,320
Capacity Charges				_				784		8,105	47,209		177,780	64,091	l	297,969
Total Revenue from Monthly Meter Charges	\$	-	\$ -	\$	-	\$ -	\$	938	\$	8,898	\$ 49,231	\$	182,132	\$ 65,089	\$	306,289

- 1. Number of meters by Class and Size are based on June 2014 customer data. File: VWD14 Revenue Model Meter.xls. Excludes Municipal Well customer, Flow meters and Intertie Connections.
- 2. Source: AWWA Manual M1, "Principles of Water Rates, Fees, and Charges", Table VI.2-5.
- Assumes displacement meters for 3/4 2 inch meters, compound meters for 3 6 inch and turbine class II meters for 8 and 10 inch meters.
- 3. Customer costs are allocated to each customer by dividing the total customer costs by the total number of customers.
- 4. Capacity costs are allocated by meter size and the hydraulic capacity of the meter.
- 5. Number of fire meters by size were provided by District Staff on 8/3/2015 (file: VWD Rate Analysis 08-03-2015.xlsx.)

WATER RATE STUDY

Water Cost of Service Analysis/Rate Design

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

PROPOSED VOLUMETRIC CHARGES FOR FY 2016/17

Net Revenue Requirements (40% Fixed / 60% Variable)

Customer Classes	Number of Meters ¹	Water Consumption (hcf/yr.) ²	arget Rev. q't from Vol. Charges	% of Total Rate Revenue	Uniform Commodity Rates (\$/hcf)	Proposed Rate Structure
Treated Water:						
Single Family Residential	32,862	4,262,924	\$ 7,455,253	39%	\$1.749	Uniform
Multi-Family Residential	596	596,603	\$ 1,043,374	5%	\$1.749	Uniform
Commercial	781	694,364	\$ 1,214,344	6%	\$1.749	Uniform
Irrigation	58	70,397	\$ 123,114	1%	\$1.749	Uniform
Municipal Irrigation	200	317,867	\$ 555,905	3%	\$1.749	Uniform
Fire	356	0	\$ -	0%	\$1.749	Uniform
Other	282	605,987	\$ 1,059,785	6%	\$1.749	Uniform
Total	35,135	6,548,141	\$ 11,451,774	60%		

Net Revenue Requirements (40% Fixed / 60% Variable), continued

Calculated Rate for Non-Recurring (Commercial & Municipal Flow and Intertie) Users:

Calculated Rate for Flow Meters and Intertie Connections	Water Consumption (hcf/yr.) ²	Total Target Rev. Req't.	Average Cost Per Unit (\$/hcf)
All Treated Water	6,548,141	\$ 19,119,648	\$2.920

Customer Classes	Number of Meters ¹	Water Consumption (hcf/yr.) ²	_	timated Rate Revenue FY 2015/16
Commercial Flow Meter	36	37,166	\$	108,519
Municipal Flow Meter	19	2,458	\$	7,177
Intertie ³	3	96,553	\$	281,920
Total	58	136,176	\$	397,616

Number of meters is based on the number of customers billed a fixed and/or variable charge in June 2014, except for intertie customers. File: VWD14 Revenue Model Meter.xls.

^{2.} Assumes the District will meet the 28% conservation mandate from the State of CA, as noted in the draft usage analysis released 4/28/2015 by the State Water Res

^{3.} Number of meters is based on September 2013 customer data, which is the most meters connected at any point during FY 2013/14.

WATER RATE STUDY

Water Cost of Service Analysis/Rate Design

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

PROPOSED VOLUMETRIC CHARGES FOR FY 2017/18

Net Revenue Requirements (39% Fixed / 61% Variable)

Customer Classes	Number of Meters ¹	Water Consumption (hcf/yr.) ²	arget Rev. q't from Vol. Charges	% of Total Rate Revenue	Uniform Commodity Rates (\$/hcf)	Proposed Rate Structure
Treated Water:						
Single Family Residential	33,059	4,288,502	\$ 8,070,774	40%	\$1.882	Uniform
Multi-Family Residential	600	600,182	\$ 1,129,517	6%	\$1.882	Uniform
Commercial	786	698,530	\$ 1,314,603	6%	\$1.882	Uniform
Irrigation	58	70,819	\$ 133,278	1%	\$1.882	Uniform
Municipal Irrigation	201	319,774	\$ 601,801	3%	\$1.882	Uniform
Fire	358	0	\$ -	0%	\$1.882	Uniform
Other	284	609,622	\$ 1,147,283	6%	\$1.882	Uniform
Total	35,346	6,587,430	\$ 12,397,256	61%		

Net Revenue Requirements (39% Fixed / 61% Variable), continued

Calculated Rate for Non-Recurring (Commercial & Municipal Flow and Intertie) Users:

Calculated Rate for Flow Meters and Intertie Connections	Water Consumption (hcf/yr.) ²	Total Target Rev. Req't.	Average Cost Per Unit (\$/hcf)
All Treated Water	6,587,430	\$ 20,292,256	\$3.080

Customer Classes	Number of Meters ¹	Water Consumption (hcf/yr.) ²	_	timated Rate levenue FY 2015/16
Commercial Flow Meter	36	37,166	\$	108,519
Municipal Flow Meter	19	2,458	\$	7,177
Intertie ³	3	96,553	\$	281,920
Total	58	136,176	\$	397,616

- Number of meters is based on the number of customers billed a fixed and/or variable charge in June 2014, except for intertie customers. File: VWD14 Revenue Model Meter.xls.
- 2. Assumes the District will meet the 28% conservation mandate from the State of CA, as noted in the draft usage analysis released 4/28/2015 by the State Water Res
- 3. Number of meters is based on September 2013 customer data, which is the most meters connected at any point during FY 2013/14.

WATER RATE STUDY

Water Cost of Service Analysis/Rate Design

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

PROPOSED VOLUMETRIC CHARGES FOR FY 2018/19

Net Revenue Requirements (38% Fixed / 62% Variable)

Customer Classes	Number of Meters ¹	Water Consumption (hcf/yr.) ²	Re	arget Rev. q't from Vol. Charges	% of Total Rate Revenue	Uniform Commodity Rates (\$/hcf)	Proposed Rate Structure
Treated Water:							
Single Family Residential	33,258	4,314,233	\$	8,737,533	41%	\$2.025	Uniform
Multi-Family Residential	603	603,784	\$	1,222,831	6%	\$2.025	Uniform
Commercial	790	702,721	\$	1,423,207	7%	\$2.025	Uniform
Irrigation	59	71,244	\$	144,289	1%	\$2.025	Uniform
Municipal Irrigation	202	321,693	\$	651,518	3%	\$2.025	Uniform
Fire	360	0	\$	-	0%	\$2.025	Uniform
Other	285	613,280	\$	1,242,065	6%	\$2.025	Uniform
Total	35,558	6,626,954	\$	13,421,443	62%		

Net Revenue Requirements (38% Fixed / 62% Variable), continued

Calculated Rate for Non-Recurring (Commercial & Municipal Flow and Intertie) Users:

Calculated Rate for Flow Meters and Intertie Connections	Water Consumption (hcf/yr.) ²	Total Target Rev. Req't.	Average Cost Per Unit (\$/hcf)
All Treated Water	6,626,954	\$ 21,536,780	\$3.250

Customer Classes	Number of Meters ¹	Water Consumption (hcf/yr.) ²	_	timated Rate levenue FY 2015/16
Commercial Flow Meter	36	37,166	\$	108,519
Municipal Flow Meter	19	2,458	\$	7,177
Intertie ³	3	96,553	\$	281,920
Total	58	136,176	\$	397,616

- Number of meters is based on the number of customers billed a fixed and/or variable charge in June 2014, except for intertie customers. File: VWD14 Revenue Model Meter.xls.
- 2. Assumes the District will meet the 28% conservation mandate from the State of CA, as noted in the draft usage analysis released 4/28/2015 by the State Water Res
- 3. Number of meters is based on September 2013 customer data, which is the most meters connected at any point during FY 2013/14.

WATER RATE STUDY

Water Cost of Service Analysis/Rate Design Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

PROPOSED VOLUMETRIC CHARGES FOR FY 2019/20

Net Revenue Requirements (36% Fixed / 64% Variable)

Customer Classes	Number of Meters ¹	Water Consumption (hcf/yr.) ²	arget Rev. q't from Vol. Charges	% of Total Rate Revenue	Uniform Commodity Rates (\$/hcf)	Proposed Rate Structure
Treated Water:						
Single Family Residential	33,457	4,340,118	\$ 9,459,824	41%	\$2.180	Uniform
Multi-Family Residential	607	607,406	\$ 1,323,917	6%	\$2.180	Uniform
Commercial	795	706,937	\$ 1,540,857	7%	\$2.180	Uniform
Irrigation	59	71,671	\$ 156,217	1%	\$2.180	Uniform
Municipal Irrigation	204	323,623	\$ 705,376	3%	\$2.180	Uniform
Fire	362	0	\$ -	0%	\$2.180	Uniform
Other	287	616,960	\$ 1,344,740	6%	\$2.180	Uniform
Total	35,771	6,666,716	\$ 14,530,932	64%		

Net Revenue Requirements (36% Fixed / 64% Variable), continued

Calculated Rate for Non-Recurring (Commercial & Municipal Flow and Intertie) Users:

Calculated Rate for Flow Meters and Intertie Connections	Water Consumption (hcf/yr.) ²	Total Target Rev. Req't.	Average Cost Per Unit (\$/hcf)
All Treated Water	6,666,716	\$ 22,857,630	\$3.429

Customer Classes	Number of Meters ¹	Water Consumption (hcf/yr.) ²	_	timated Rate levenue FY 2015/16
Commercial Flow Meter	36	37,166	\$	108,519
Municipal Flow Meter	19	2,458	\$	7,177
Intertie ³	3	96,553	\$	281,920
Total	58	136,176	\$	397,616

- Number of meters is based on the number of customers billed a fixed and/or variable charge in June 2014, except for intertie customers. File: VWD14 Revenue Model Meter.xls.
- 2. Assumes the District will meet the 28% conservation mandate from the State of CA, as noted in the draft usage analysis released 4/28/2015 by the State Water Res
- 3. Number of meters is based on September 2013 customer data, which is the most meters connected at any point during FY 2013/14.

WATER RATE STUDY

Water Cost of Service Analysis/Rate Design Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

PROPOSED VOLUMETRIC CHARGES FOR FY 2020/21

Net Revenue Requirements (35% Fixed / 65% Variable)

Customer Classes	Number of Meters ¹	Water Consumption (hcf/yr.) ²	Target Rev. eq't from Vol. Charges	% of Total Rate Revenue	Uniform Commodity Rates (\$/hcf)	Proposed Rate Structure
Treated Water:						
Single Family Residential	33,658	4,366,159	\$ 10,242,305	42%	\$2.346	Uniform
Multi-Family Residential	610	611,051	\$ 1,433,426	6%	\$2.346	Uniform
Commercial	800	711,179	\$ 1,668,311	7%	\$2.346	Uniform
Irrigation	59	72,101	\$ 169,138	1%	\$2.346	Uniform
Municipal Irrigation	205	325,565	\$ 763,723	3%	\$2.346	Uniform
Fire	365	0	\$ -	0%	\$2.346	Uniform
Other	289	620,662	\$ 1,455,972	6%	\$2.346	Uniform
Total	35,986	6,706,716	\$ 15,732,875	65%		

Net Revenue Requirements (35% Fixed / 65% Variable), continued

Calculated Rate for Non-Recurring (Commercial & Municipal Flow and Intertie) Users:

Calculated Rate for Flow Meters and Intertie Connections	Water Consumption (hcf/yr.) ²	Total Target Rev. Req't.	Average Cost Per Unit (\$/hcf)
All Treated Water	6,706,716	\$ 24,114,800	\$3.596

Customer Classes	Number of Meters ¹	Water Consumption (hcf/yr.) ²	_	timated Rate levenue FY 2015/16
Commercial Flow Meter	36	37,166	\$	108,519
Municipal Flow Meter	19	2,458	\$	7,177
Intertie ³	3	96,553	\$	281,920
Total	58	136,176	\$	397,616

- Number of meters is based on the number of customers billed a fixed and/or variable charge in June 2014, except for intertie customers. File: VWD14 Revenue Model Meter.xls.
- 2. Assumes the District will meet the 28% conservation mandate from the State of CA, as noted in the draft usage analysis released 4/28/2015 by the State Water Res
- 3. Number of meters is based on September 2013 customer data, which is the most meters connected at any point during FY 2013/14.

VICTORVILLE WATER DISTRICT
WATER RATE STUDY
Water Cost of Service Analysis/Rate Design
Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

Projected Revenue Check from Rates Using Marginal Water Cost, FY 2016/17:

Concentration					Fiscal Year 201	6/17 Estimates	S			
Conservation to FY 2013/14 Level	Production	Net Revenue Requirement	Water Cost	Total Revenue Requirement	Consumption	Fixed Revenue	Variable Revenue	Total Revenue	Excess (Shortfall)	Percent of Total Revenue
-10%	11,479,267	\$19,119,648	\$ 6,173,486	\$25,293,134	10,004,104	\$ 7,667,874	\$17,495,766	\$25,163,639	\$ (129,494)	-0.5%
0%	10,435,697	\$19,119,648	\$ 4,548,884	\$23,668,532	9,094,640	\$ 7,667,874	\$15,905,242	\$23,573,115	\$ (95,417)	-0.4%
10%	9,392,127	\$19,119,648	\$ 2,924,283	\$22,043,930	8,185,176	\$ 7,667,874	\$14,314,717	\$21,982,591	\$ (61,339)	-0.3%
20%	8,348,558	\$19,119,648	\$ 1,299,681	\$20,419,329	7,275,712	\$ 7,667,874	\$12,724,193	\$20,392,067	\$ (27,262)	-0.1%
28%	7,513,702	\$19,119,648	\$ -	\$19,119,648	6,548,141	\$ 7,667,874	\$11,451,774	\$19,119,648	\$ -	0.0%
35%	6,783,203	\$19,119,648	\$ (1,137,221)	\$17,982,427	5,911,516	\$ 7,667,874	\$10,338,407	\$18,006,281	\$ 23,854	0.1%
40%	6,261,418	\$19,119,648	\$ (1,163,416)	\$17,956,232	5,456,784	\$ 7,667,874	\$ 9,543,145	\$17,211,019	\$ (745,213)	-4.3%
45%	5,739,633	\$19,119,648	\$ (1,189,611)	\$17,930,036	5,002,052	\$ 7,667,874	\$ 8,747,883	\$16,415,757	\$ (1,514,280)	-9.2%
50%	5,217,849	\$19,119,648	\$ (1,215,806)	\$17,903,841	4,547,320	\$ 7,667,874	\$ 7,952,621	\$15,620,495	\$ (2,283,347)	-14.6%
55%	4,696,064	\$19,119,648	\$ (1,242,001)	\$17,877,646	4,092,588	\$ 7,667,874	\$ 7,157,359	\$14,825,232	\$ (3,052,414)	-20.6%
60%	4,174,279	\$19,119,648	\$ (1,268,196)	\$17,851,451	3,637,856	\$ 7,667,874	\$ 6,362,097	\$14,029,970	\$ (3,821,481)	-27.2%

Calculation of Drought Surcharges in FY 2016/17:

			Drought	Estimate	ed Rate + Droug	ght Surcharge Revenue		
Conservation to FY 2013/14 Level	Concumptio	Costs to Recover	Drought Surcharge (\$/hcf)	Fixed Revenue	Variable Revenue	Drought Surcharge Total Revenue Revenue	Total Revenue Requirement	Excess (Shortfall)
40%	5,456,784	\$ 745,213	\$0.137	\$ 7,667,874	\$ 9,543,145	\$ 745,213 \$17,956,232	\$17,956,232	\$ -
45%	5,002,052	\$ 1,514,280	\$0.303	\$ 7,667,874	\$ 8,747,883	\$ 1,514,280 \$17,930,036	\$17,930,036	\$ -
50%	4,547,320	\$ 2,283,347	\$0.502	\$ 7,667,874	\$ 7,952,621	\$ 2,283,347 \$17,903,841	\$17,903,841	\$ -
55%	4,092,588	\$ 3,052,414	\$0.746	\$ 7,667,874	\$ 7,157,359	\$ 3,052,414 \$17,877,646	\$17,877,646	\$ -
60%	3,637,856	\$ 3,821,481	\$1.050	\$ 7,667,874	\$ 6,362,097	\$ 3,821,481 \$17,851,451	\$17,851,451	\$ -

FY 2016/17 Drought Surcharges for Construction Flow Meter/Filler Spout Water/Intertie:

Conservation to FY 2013/14 Level	Total Revenue Requirement	n '	Water Rate in Drought	Standard Rate	Drought Surcharge
40%	\$17,956,232	5,456,784	\$3.291	\$2.920	\$0.371
45%	\$17,930,036	5,002,052	\$3.585	\$2.920	\$0.665
50%	\$17,903,841	4,547,320	\$3.937	\$2.920	\$1.017
55%	\$17,877,646	4,092,588	\$4.368	\$2.920	\$1.448
60%	\$17,851,451	3,637,856	\$4.907	\$2.920	\$1.987

VICTORVILLE WATER DISTRICT
WATER RATE STUDY
Water Cost of Service Analysis/Rate Design

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

Projected Revenue Check from Rates Using Marginal Water Cost, FY 2017/18:

Componention					Fiscal Year 201	7/18 Estimates	3			
Conservation to FY 2013/14 Level	Production (1)	Net Revenue Requirement	Water Cost	Total Revenue Requirement	Consumption (1)	Fixed Revenue	Variable Revenue	Total Revenue	Excess (Shortfall)	Percent of Total Revenue
-10%	11,548,142	\$20,292,256	\$ 6,683,182	\$26,975,437	10,064,129	\$ 7,895,000	\$18,940,252	\$26,835,252	\$ (140,185)	-0.5%
0%	10,498,311	\$20,292,256	\$ 4,924,450	\$25,216,705	9,149,208	\$ 7,895,000	\$17,218,411	\$25,113,411	\$ (103,294)	-0.4%
10%	9,448,480	\$20,292,256	\$ 3,165,718	\$23,457,973	8,234,287	\$ 7,895,000	\$15,496,570	\$23,391,570	\$ (66,404)	-0.3%
20%	8,398,649	\$20,292,256	\$ 1,406,986	\$21,699,241	7,319,366	\$ 7,895,000	\$13,774,729	\$21,669,729	\$ (29,513)	-0.1%
28%	7,558,784	\$20,292,256	\$ -	\$20,292,256	6,587,430	\$ 7,895,000	\$12,397,256	\$20,292,256	\$ -	0.0%
35%	6,823,902	\$20,292,256	\$ (1,231,112)	\$19,061,143	5,946,985	\$ 7,895,000	\$11,191,967	\$19,086,967	\$ 25,824	0.1%
40%	6,298,987	\$20,292,256	\$ (1,260,277)	\$19,031,979	5,489,525	\$ 7,895,000	\$10,331,047	\$18,226,046	\$ (805,933)	-4.4%
45%	5,774,071	\$20,292,256	\$ (1,289,441)	\$19,002,815	5,032,064	\$ 7,895,000	\$ 9,470,126	\$17,365,126	\$ (1,637,689)	-9.4%
50%	5,249,156	\$20,292,256	\$ (1,318,605)	\$18,973,651	4,574,604	\$ 7,895,000	\$ 8,609,206	\$16,504,205	\$ (2,469,446)	-15.0%
55%	4,724,240	\$20,292,256	\$ (1,347,769)	\$18,944,487	4,117,144	\$ 7,895,000	\$ 7,748,285	\$15,643,285	\$ (3,301,202)	-21.1%
60%	4,199,324	\$20,292,256	\$ (1,376,933)	\$18,915,323	3,659,683	\$ 7,895,000	\$ 6,887,364	\$14,782,364	\$ (4,132,959)	-28.0%

Calculation of Drought Surcharges in FY 2017/18:

Conservation			Drought	Estimate	ed Rate + Droug	Total		
to FY 2013/14 Level	Consumptio	Costs to Recover	Surcharge (\$/hcf)	Fixed Revenue	Variable Revenue	Drought Surcharge Total Reve Revenue	Revenue	Excess (Shortfall)
40%	5,489,525	\$ 805,933	\$0.147	\$ 7,895,000	\$ 10,331,047	\$ 805,933 \$19,031,9	79 \$19,031,979	\$ -
45%	5,032,064	\$ 1,637,689	\$0.325	\$ 7,895,000	\$ 9,470,126	\$ 1,637,689 \$19,002,8	15 \$19,002,815	\$ -
50%	4,574,604	\$ 2,469,446	\$0.540	\$ 7,895,000	\$ 8,609,206	\$ 2,469,446 \$18,973,6	51 \$18,973,651	\$ -
55%	4,117,144	\$ 3,301,202	\$0.802	\$ 7,895,000	\$ 7,748,285	\$ 3,301,202 \$18,944,4	37 \$18,944,487	\$ -
60%	3,659,683	\$ 4,132,959	\$1.129	\$ 7,895,000	\$ 6,887,364	\$ 4,132,959 \$18,915,3	23 \$18,915,323	\$ -

FY 2017/18 Drought Surcharges for Construction Flow Meter/Filler Spout Water/Intertie:

Conservation to FY 2013/14 Level	Total Revenue Requirement	n	Water Rate in Drought	Standard Rate	Drought Surcharge
40%	\$19,031,979	5,489,525	\$3.467	\$3.080	\$0.387
45%	\$19,002,815	5,032,064	\$3.776	\$3.080	\$0.696
50%	\$18,973,651	4,574,604	\$4.148	\$3.080	\$1.067
55%	\$18,944,487	4,117,144	\$4.601	\$3.080	\$1.521
60%	\$18,915,323	3,659,683	\$5.169	\$3.080	\$2.088

VICTORVILLE WATER DISTRICT WATER RATE STUDY Water Cost of Service Analysis/Rate Design

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

Projected Revenue Check from Rates Using Marginal Water Cost, FY 2018/19:

Conservation					Fiscal Year 201	8/19 Estimates	;			
to FY 2013/14 Level	Production (1)	Net Revenue Requirement	Marginal Water Cost Adjustment	Total Revenue Requirement	Consumption (1)	Fixed Revenue	Variable Revenue	Total Revenue	Excess (Shortfall)	Percent of Total Revenue
-10%	11,617,431	\$21,536,780	\$ 7,235,306	\$28,772,086	10,124,513	\$ 8,115,336	\$20,504,983	\$28,620,319	\$ (151,767)	-0.5%
0%	10,561,301	\$21,536,780	\$ 5,331,278	\$26,868,058	9,204,103	\$ 8,115,336	\$18,640,894	\$26,756,230	\$ (111,828)	-0.4%
10%	9,505,171	\$21,536,780	\$ 3,427,250	\$24,964,030	8,283,693	\$ 8,115,336	\$16,776,804	\$24,892,141	\$ (71,889)	-0.3%
20%	8,449,041	\$21,536,780	\$ 1,523,222	\$23,060,002	7,363,282	\$ 8,115,336	\$14,912,715	\$23,028,051	\$ (31,951)	-0.1%
28%	7,604,137	\$21,536,780	\$ -	\$21,536,780	6,626,954	\$ 8,115,336	\$13,421,443	\$21,536,780	\$ -	0.0%
35%	6,864,846	\$21,536,780	\$ (1,332,820)	\$20,203,960	5,982,667	\$ 8,115,336	\$12,116,581	\$20,231,917	\$ 27,957	0.1%
40%	6,336,781	\$21,536,780	\$ (1,363,684)	\$20,173,095	5,522,462	\$ 8,115,336	\$11,184,536	\$19,299,872	\$ (873,223)	-4.5%
45%	5,808,716	\$21,536,780	\$ (1,394,549)	\$20,142,231	5,062,257	\$ 8,115,336	\$10,252,491	\$18,367,828	\$ (1,774,403)	-9.7%
50%	5,280,651	\$21,536,780	\$ (1,425,414)	\$20,111,366	4,602,052	\$ 8,115,336	\$ 9,320,447	\$17,435,783	\$ (2,675,583)	-15.3%
55%	4,752,585	\$21,536,780	\$ (1,456,279)	\$20,080,501	4,141,846	\$ 8,115,336	\$ 8,388,402	\$16,503,738	\$ (3,576,763)	-21.7%
60%	4,224,520	\$21,536,780	\$ (1,487,143)	\$20,049,636	3,681,641	\$ 8,115,336	\$ 7,456,357	\$15,571,694	\$ (4,477,943)	-28.8%

^{1.} Adjusted to Account for Growth.

Calculation of Drought Surcharges in FY 2018/19:

Conservation			Drought	Estimate	ed Rate + Droug	ght Surcharge	Revenue	Total	
to FY 2013/14 Level	Conclimation	Costs to Recover	Surcharge (\$/hcf)	Fixed Revenue	Variable Revenue	Drought Surcharge Revenue	Total Revenue	Revenue Requirement	Excess (Shortfall)
40%	5,522,462	\$ 873,223	\$0.158	\$ 8,115,336	\$ 11,184,536	\$ 873,223	\$20,173,095	\$20,173,095	\$ -
45%	5,062,257	\$ 1,774,403	\$0.351	\$ 8,115,336	\$ 10,252,491	\$ 1,774,403	\$20,142,231	\$20,142,231	\$ -
50%	4,602,052	\$ 2,675,583	\$0.581	\$ 8,115,336	\$ 9,320,447	\$ 2,675,583	\$20,111,366	\$20,111,366	\$ -
55%	4,141,846	\$ 3,576,763	\$0.864	\$ 8,115,336	\$ 8,388,402	\$ 3,576,763	\$20,080,501	\$20,080,501	\$ -
60%	3,681,641	\$ 4,477,943	\$1.216	\$ 8,115,336	\$ 7,456,357	\$ 4,477,943	\$20,049,636	\$20,049,636	\$ -

FY 2018/19 Drought Surcharges for Construction Flow Meter/Filler Spout Water/Intertie:

Conservation to FY 2013/14 Level	Total Revenue Requirement	n	Water Rate in Drought	Standard Rate	Drought Surcharge
40%	\$20,173,095	5,522,462	\$3.653	\$3.250	\$0.403
45%	\$20,142,231	5,062,257	\$3.979	\$3.250	\$0.729
50%	\$20,111,366	4,602,052	\$4.370	\$3.250	\$1.120
55%	\$20,080,501	4,141,846	\$4.848	\$3.250	\$1.598
60%	\$20,049,636	3,681,641	\$5.446	\$3.250	\$2.196

VICTORVILLE WATER DISTRICT
WATER RATE STUDY
Water Cost of Service Analysis/Rate Design
Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

Projected Revenue Check from Rates Using Marginal Water Cost, FY 2019/20:

Conservation		Fiscal Year 2019/20 Estimates								
to FY 2013/14 Level	Production (1)	Net Revenue Requirement	Water Cost	Total Revenue Requirement	Consumption (1)	Fixed Revenue	Variable Revenue	Total Revenue	Excess (Shortfall)	Percent of Total Revenue
-10%	11,687,136	\$22,857,630	\$ 7,833,416	\$30,691,046	10,185,260	\$ 8,326,698	\$22,200,036	\$30,526,734	\$ (164,313)	-0.5%
0%	10,624,669	\$22,857,630	\$ 5,771,991	\$28,629,621	9,259,328	\$ 8,326,698	\$20,181,851	\$28,508,549	\$ (121,072)	-0.4%
10%	9,562,202	\$22,857,630	\$ 3,710,565	\$26,568,196	8,333,395	\$ 8,326,698	\$18,163,665	\$26,490,364	\$ (77,832)	-0.3%
20%	8,499,735	\$22,857,630	\$ 1,649,140	\$24,506,771	7,407,462	\$ 8,326,698	\$16,145,480	\$24,472,178	\$ (34,592)	-0.1%
28%	7,649,762	\$22,857,630	\$ -	\$22,857,630	6,666,716	\$ 8,326,698	\$14,530,932	\$22,857,630	\$ -	0.0%
35%	6,906,035	\$22,857,630	\$ (1,442,998)	\$21,414,633	6,018,563	\$ 8,326,698	\$13,118,203	\$21,444,901	\$ 30,268	0.1%
40%	6,374,801	\$22,857,630	\$ (1,475,662)	\$21,381,968	5,555,597	\$ 8,326,698	\$12,109,110	\$20,435,808	\$ (946,160)	-4.6%
45%	5,843,568	\$22,857,630	\$ (1,508,327)	\$21,349,304	5,092,630	\$ 8,326,698	\$11,100,018	\$19,426,716	\$ (1,922,588)	-9.9%
50%	5,312,334	\$22,857,630	\$ (1,540,991)	\$21,316,639	4,629,664	\$ 8,326,698	\$10,090,925	\$18,417,623	\$ (2,899,016)	-15.7%
55%	4,781,101	\$22,857,630	\$ (1,573,656)	\$21,283,975	4,166,697	\$ 8,326,698	\$ 9,081,833	\$17,408,531	\$ (3,875,444)	-22.3%
60%	4,249,868	\$22,857,630	\$ (1,606,320)	\$21,251,310	3,703,731	\$ 8,326,698	\$ 8,072,740	\$16,399,438	\$ (4,851,872)	-29.6%

^{1.} Adjusted to Account for Growth.

Calculation of Drought Surcharges in FY 2019/20:

Conservation			Drought	Estimate	ed Rate + Droug	ght Surcharge	Revenue	Total	
to FY 2013/14 Level	Conclimation	Costs to Recover	Surcharge (\$/hcf)	Fixed Revenue	Variable Revenue	Drought Surcharge Revenue	Total Revenue	Revenue Requirement	Excess (Shortfall)
40%	5,555,597	\$ 946,160	\$0.170	\$ 8,326,698	\$ 12,109,110	\$ 946,160	\$21,381,968	\$21,381,968	\$ -
45%	5,092,630	\$ 1,922,588	\$0.378	\$ 8,326,698	\$ 11,100,018	\$ 1,922,588	\$21,349,304	\$21,349,304	\$ -
50%	4,629,664	\$ 2,899,016	\$0.626	\$ 8,326,698	\$ 10,090,925	\$ 2,899,016	\$21,316,639	\$21,316,639	\$ -
55%	4,166,697	\$ 3,875,444	\$0.930	\$ 8,326,698	\$ 9,081,833	\$ 3,875,444	\$21,283,975	\$21,283,975	\$ -
60%	3,703,731	\$ 4,851,872	\$1.310	\$ 8,326,698	\$ 8,072,740	\$ 4,851,872	\$21,251,310	\$21,251,310	\$ -

FY 2019/20 Drought Surcharges for Construction Flow Meter/Filler Spout Water/Intertie:

Conservation to FY 2013/14 Level	Total Revenue Requirement	n	Water Rate in Drought	Standard Rate	Drought Surcharge
40%	\$21,381,968	5,555,597	\$3.849	\$3.429	\$0.420
45%	\$21,349,304	5,092,630	\$4.192	\$3.429	\$0.764
50%	\$21,316,639	4,629,664	\$4.604	\$3.429	\$1.176
55%	\$21,283,975	4,166,697	\$5.108	\$3.429	\$1.679
60%	\$21,251,310	3,703,731	\$5.738	\$3.429	\$2.309

VICTORVILLE WATER DISTRICT WATER RATE STUDY Water Cost of Service Analysis/Rate Design

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

Projected Revenue Check from Rates Using Marginal Water Cost, FY 2020/21:

Conservation		Fiscal Year 2020/21 Estimates								
to FY 2013/14 Level	Production (1)	Net Revenue Requirement	Marginal Water Cost Adjustment	Total Revenue Requirement	Consumption (1)	Fixed Revenue	Variable Revenue	Total Revenue	Excess (Shortfall)	Percent of Total Revenue
-10%	11,757,259	\$24,114,800	\$ 8,481,366	\$32,596,166	10,246,372	\$ 8,381,925	\$24,036,337	\$32,418,262	\$ (177,904)	-0.5%
0%	10,688,417	\$24,114,800	\$ 6,249,427	\$30,364,228	9,314,884	\$ 8,381,925	\$21,851,216	\$30,233,140	\$ (131,087)	-0.4%
10%	9,619,575	\$24,114,800	\$ 4,017,489	\$28,132,289	8,383,395	\$ 8,381,925	\$19,666,094	\$28,048,019	\$ (84,270)	-0.3%
20%	8,550,733	\$24,114,800	\$ 1,785,551	\$25,900,351	7,451,907	\$ 8,381,925	\$17,480,973	\$25,862,897	\$ (37,453)	-0.1%
28%	7,695,660	\$24,114,800	\$ -	\$24,114,800	6,706,716	\$ 8,381,925	\$15,732,875	\$24,114,800	\$ -	0.0%
35%	6,947,471	\$24,114,800	\$ (1,562,357)	\$22,552,443	6,054,674	\$ 8,381,925	\$14,203,290	\$22,585,215	\$ 32,772	0.1%
40%	6,413,050	\$24,114,800	\$ (1,596,926)	\$22,517,874	5,588,930	\$ 8,381,925	\$13,110,729	\$21,492,654	\$ (1,025,220)	-4.8%
45%	5,878,629	\$24,114,800	\$ (1,631,495)	\$22,483,305	5,123,186	\$ 8,381,925	\$12,018,169	\$20,400,093	\$ (2,083,211)	-10.2%
50%	5,344,208	\$24,114,800	\$ (1,666,065)	\$22,448,735	4,657,442	\$ 8,381,925	\$10,925,608	\$19,307,533	\$ (3,141,203)	-16.3%
55%	4,809,788	\$24,114,800	\$ (1,700,634)	\$22,414,166	4,191,698	\$ 8,381,925	\$ 9,833,047	\$18,214,972	\$ (4,199,194)	-23.1%
60%	4,275,367	\$24,114,800	\$ (1,735,203)	\$22,379,597	3,725,953	\$ 8,381,925	\$ 8,740,486	\$17,122,411	\$ (5,257,186)	-30.7%

^{1.} Adjusted to Account for Growth.

Calculation of Drought Surcharges in FY 2020/21:

Conservation			Drought	Estimate	ed Rate + Droug	ght Surcharge	Revenue	Total	
to FY 2013/14 Level	Concumptio	Costs to Recover	Surcharge (\$/hcf)	Fixed Revenue	Variable Revenue	Drought Surcharge Revenue	Total Revenue	Revenue Requirement	Excess (Shortfall)
40%	5,588,930	\$ 1,025,220	\$0.183	\$ 8,381,925	\$ 13,110,729	\$ 1,025,220	\$22,517,874	\$22,517,874	\$ -
45%	5,123,186	\$ 2,083,211	\$0.407	\$ 8,381,925	\$ 12,018,169	\$ 2,083,211	\$22,483,305	\$22,483,305	\$ -
50%	4,657,442	\$ 3,141,203	\$0.674	\$ 8,381,925	\$ 10,925,608	\$ 3,141,203	\$22,448,735	\$22,448,735	\$ -
55%	4,191,698	\$ 4,199,194	\$1.002	\$ 8,381,925	\$ 9,833,047	\$ 4,199,194	\$22,414,166	\$22,414,166	\$ -
60%	3,725,953	\$ 5,257,186	\$1.411	\$ 8,381,925	\$ 8,740,486	\$ 5,257,186	\$22,379,597	\$22,379,597	\$ -

FY 2020/21 Drought Surcharges for Construction Flow Meter/Filler Spout Water/Intertie:

Conservation to FY 2013/14 Level	Total Revenue Requirement	n	Water Rate in Drought	Standard Rate	Drought Surcharge
40%	\$22,517,874	5,588,930	\$4.029	\$3.596	\$0.433
45%	\$22,483,305	5,123,186	\$4.389	\$3.596	\$0.793
50%	\$22,448,735	4,657,442	\$4.820	\$3.596	\$1.224
55%	\$22,414,166	4,191,698	\$5.347	\$3.596	\$1.752
60%	\$22,379,597	3,725,953	\$6.006	\$3.596	\$2.411

VICTORVILLE WATER DISTRICT
WATER RATE STUDY
Water Cost of Service Analysis/Rate Design
Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

CURRENT VS. PROPOSED WATER RATES:

Water Rate Schedule	Current		Proposed I	Rates - Alte	rnative #4	
water Rate Schedule	Rates	FY 2016/17	FY 2017/18	FY 2018/19	FY 2019/20	FY 2020/21
Projected Increase in Rate Revenue per Financial Plan:		5.50%	5.50%	5.50%	5.50%	5.50%
Fixed Service Charge						
Fixed Periodic Service Charge (Average Daily Use in HCI						
0.00 - 0.26	\$17.25	N.A.	N.A.	N.A.	N.A.	N.A.
0.27 - 1.17	\$18.25	N.A.	N.A.	N.A.	N.A.	N.A.
1.18 - 6.60	\$36.50	N.A.	N.A.	N.A.	N.A.	N.A.
6.61 and above	\$130.50	N.A.	N.A.	N.A.	N.A.	N.A.
Fixed Service Charges						
3/4 inch	N.A.	\$13.56	\$13.86	\$14.15	\$14.41	\$14.40
1 inch	N.A.	\$21.40	\$21.88	\$22.34	\$22.76	\$22.73
1.5 inch	N.A.	\$41.02	\$41.94	\$42.81	\$43.61	\$43.56
2 inch	N.A.	\$64.55	\$66.00	\$67.37	\$68.63	\$68.56
3 inch	N.A.	\$127.31	\$130.18	\$132.87	\$135.36	\$135.22
4 inch	N.A.	\$197.92	\$202.37	\$206.56	\$210.43	\$210.20
6 inch	N.A.	\$394.05	\$402.91	\$411.25	\$418.95	\$418.51
8 inch	N.A.	\$1,100.12	\$1,124.85	\$1,148.12	\$1,169.63	\$1,168.40
10 inch	N.A.	\$1,649.29	\$1,686.36	\$1,721.25	\$1,753.50	\$1,751.64
Fire Fixed Service Charges:						
3 inch	\$10.00	\$10.60	\$11.12	\$11.66	\$12.23	\$12.72
4 inch	\$10.00	\$19.24	\$20.23	\$21.27	\$22.37	\$23.35
6 inch	\$10.00	\$41.44	\$43.66	\$45.99	\$48.45	\$50.70
8 inch	\$10.00	\$71.06	\$74.90	\$78.95	\$83.22	\$87.17
10 inch	\$10.00	\$110.54	\$116.56	\$122.90	\$129.58	\$135.79
Commodity Charges for All Water Consumed (per hcf)						
Rate Per hcf of Water Consumed:						
Standard Domestic Water	\$1.530	\$1.749	\$1.882	\$2.025	\$2.180	\$2.346
Public Benefit Use Water (Municipal Irrigation)	\$0.610	\$1.749	\$1.882	\$2.025	\$2.180	\$2.346
Construction Flow Meter/Filler Spout Water/Intertie	\$2.470	\$2.920	\$3.080	\$3.250	\$3.429	\$3.596

VICTORVILLE WATER DISTRICT
WATER RATE STUDY
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CURRENT VS. PROPOSED WATER RATES:

Drought Rate Schedule	Current		Proposed I	Rates - Alte	rnative #4	
Drought Rate Schedule	Rates	FY 2016/17	FY 2017/18	FY 2018/19	FY 2019/20	FY 2020/21
Projected Increase in Rate Revenue per Financial Plan:		5.50%	5.50%	5.50%	5.50%	5.50%
Rates for Standard Domestic & Public Benefit Use Water	Consumed	(per hcf) ¹				
Conservation Level Compared to FY 2013/14						
40%	N.A.	\$1.885	\$2.029	\$2.183	\$2.350	\$2.529
45%	N.A.	\$2.052	\$2.207	\$2.376	\$2.557	\$2.752
50%	N.A.	\$2.251	\$2.422	\$2.607	\$2.806	\$3.020
55%	N.A.	\$2.495	\$2.684	\$2.889	\$3.110	\$3.348
60%	N.A.	\$2.799	\$3.011	\$3.242	\$3.490	\$3.757
Rates for Construction Flow Meter/Filler Spout Water/Inc	ertie (per hcf) 1				
Conservation Level Compared to FY 2013/14						
40%	N.A.	\$3.291	\$3.467	\$3.653	\$3.849	\$4.029
45%	N.A.	\$3.585	\$3.776	\$3.979	\$4.192	\$4.389
50%	N.A.	\$3.937	\$4.148	\$4.370	\$4.604	\$4.820
55%	N.A.	\$4.368	\$4.601	\$4.848	\$5.108	\$5.347
60%	N.A.	\$4.907	\$5.169	\$5.446	\$5.738	\$6.006

^{1.} Drought surcharges will apply to all consumption, if conservation is at or above 40% from FY 2013/14 baseline consumption levels.