

VICTORVILLE WATER DISTRICT
WATER RATE STUDY
Financial Plan and Reserve Projections

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

Financial Plan & Reserve Summary
Financial Plan Alternative #4

TABLE 1
FINANCIAL PLAN AND SUMMARY OF REVENUE REQUIREMENTS

RATE REVENUE REQUIREMENTS SUMMARY	Budget								
	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									
<i>Water Rate Revenue Under Prevailing Rates (1):</i>									
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									
<i>Operating Expenses (1):</i>									
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	2,859,405
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	568,006
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	1,574,385
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	4,180,047
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
<i>Other Expenditures:</i>									
Existing Debt Service	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
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	\$ 6,354,995	\$ 6,436,668	\$ 4,378,708
Total Uses of Water Funds	\$ 22,479,754	\$ 19,172,890	\$ 20,298,378	\$ 21,990,906	\$ 23,545,402	\$ 26,058,388	\$ 26,438,257	\$ 27,132,294	\$ 25,713,246
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)	\$ 1,632,295	\$ 1,698,730	\$ 1,299,025	\$ 1,126,695	\$ (70,383)	\$ 208,141	\$ 196,755	\$ 2,289,029
Net Revenue Req. (Total Uses less Non-Rate Revenue)	\$ 19,376,984	\$ 17,487,353	\$ 18,593,526	\$ 20,237,755	\$ 21,730,936	\$ 24,185,184	\$ 24,509,529	\$ 25,138,856	\$ 23,679,974
Total Rate Revenue After Rate Increases	\$ 18,014,800	\$ 19,119,648	\$ 20,292,256	\$ 21,536,780	\$ 22,857,630	\$ 24,114,800	\$ 24,717,670	\$ 25,335,612	\$ 25,969,002
Projected Annual Rate Revenue Increase	0.00%	5.50%	5.50%	5.50%	5.50%	5.50%	2.50%	2.50%	2.50%
<i>Cumulative Increase from Annual Revenue Increases</i>	0.00%	5.50%	11.30%	17.42%	23.88%	30.70%	33.96%	37.31%	40.75%
<i>Debt Coverage After Rate Increase (6)</i>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Reduction in Rate Revenue Due to Water Conservation (7)		-13%							

- 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.
- Per District Staff, FY 2014/15 revenue includes the 4% rate increase implemented for FY 2014/15.
- 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)
- Interest income is per the District's budget for FY 2014/15 - 2015/16, and calculated here for all future years.
- Assumes new rates are implemented July 1, 2016 and subsequent increase are effecting each following July 1st.
- Debt coverage after rate increase is shown as "N/A" because outstanding debt is not funded by water rate revenue.
- 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.

TABLE 2
RESERVE FUND SUMMARY, UN-RESTRICTED RESERVES

SUMMARY OF CASH ACTIVITY GENERAL WATER FUND RESERVES	Budget								
	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
Total Beginning Cash (1)	\$ 39,526,413								
Un-Restricted Reserves:									
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
<i>Target Ending Balance (90-days of O&M)</i>	<i>\$ 5,620,000</i>	<i>\$ 4,793,000</i>	<i>\$ 4,932,000</i>	<i>\$ 5,076,000</i>	<i>\$ 4,944,000</i>	<i>\$ 4,874,000</i>	<i>\$ 5,021,000</i>	<i>\$ 5,174,000</i>	<i>\$ 5,334,000</i>
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
<i>Target Ending Balance (3% of Assets) (3)</i>	<i>\$ 5,247,100</i>	<i>\$ 5,348,300</i>	<i>\$ 5,296,300</i>	<i>\$ 5,246,300</i>	<i>\$ 5,204,300</i>	<i>\$ 5,265,100</i>	<i>\$ 5,379,000</i>	<i>\$ 5,440,700</i>	<i>\$ 5,404,900</i>
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
<i>Annual Interest Earnings Rate (4)</i>	<i>0.25%</i>	<i>0.50%</i>	<i>0.75%</i>	<i>1.00%</i>	<i>1.25%</i>	<i>1.50%</i>	<i>1.75%</i>	<i>2.00%</i>	<i>2.00%</i>

- (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 earnin

TABLE 3
RESERVE FUND SUMMARY, RESTRICTED RESERVES

SUMMARY OF CASH ACTIVITY, continued RESTRICTED WATER FUND RESERVES	Budget								
	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
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	\$ 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	\$ 12,190,102	\$ 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.

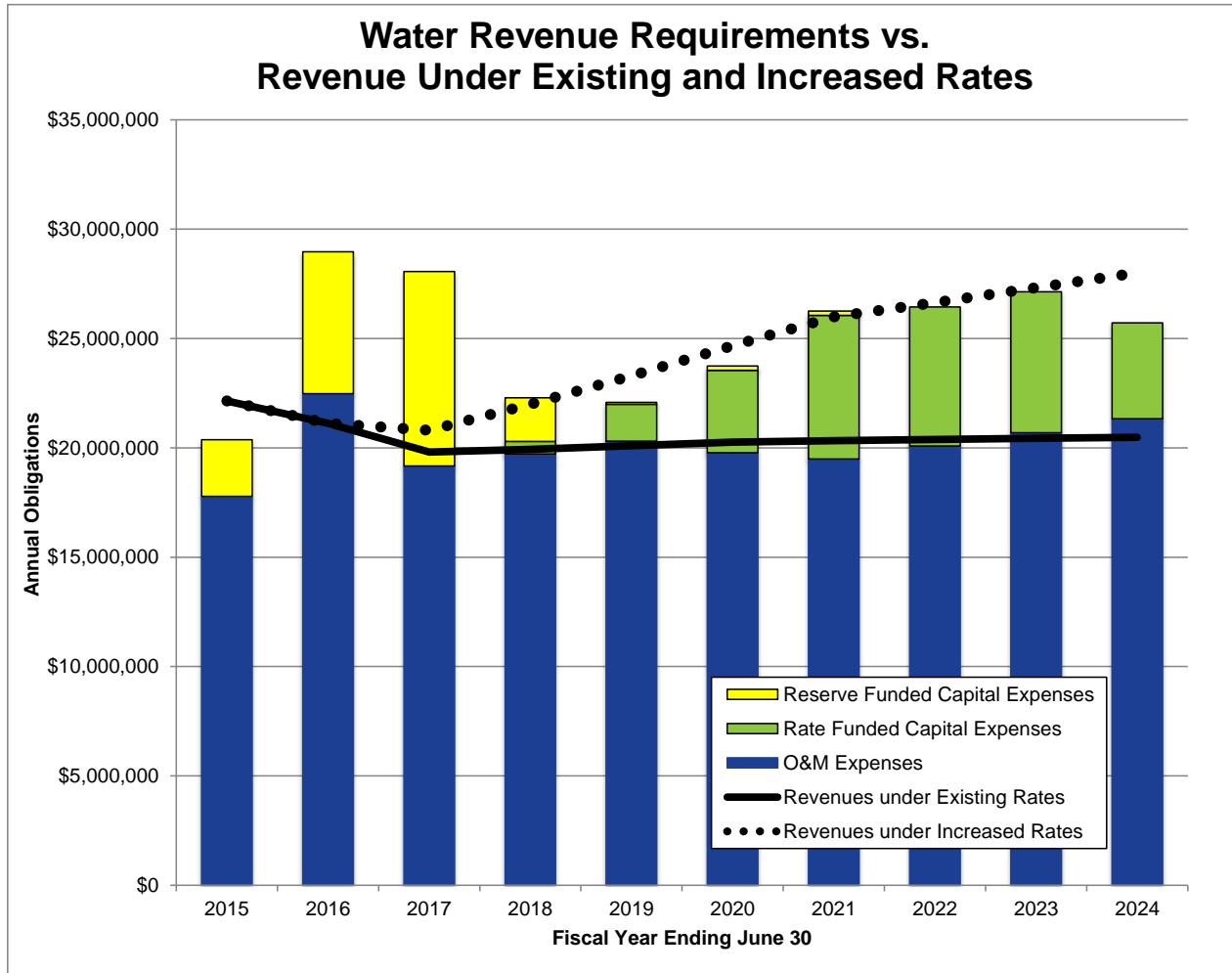
(2) Beginning debt reserve balance is the "Fund with Fiscal Agents", per cash balances as of 1/8/2016.

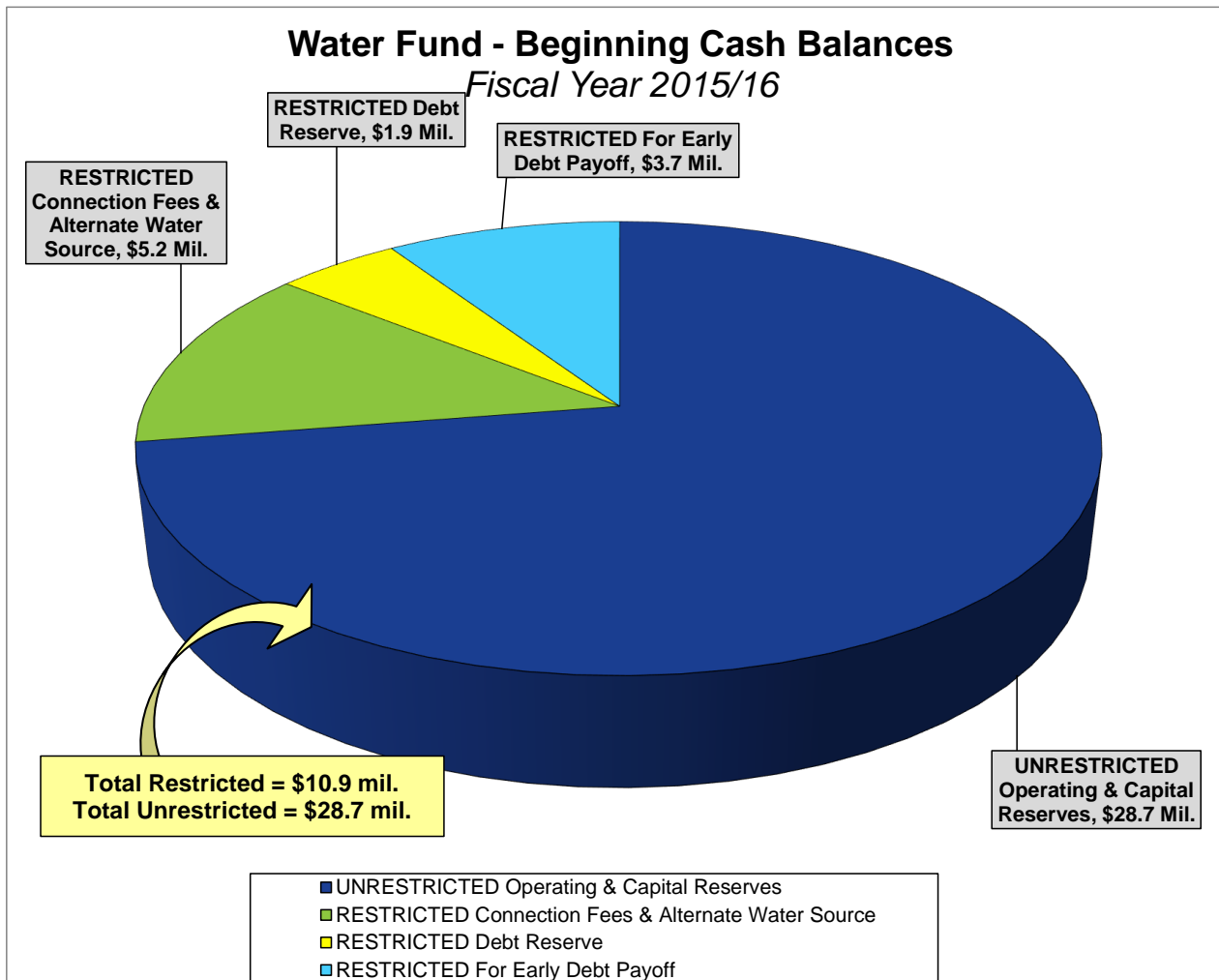
(3) Beginning Reserve for Debt Service balance is the "Reserved for Debt Service", per cash balances as of 1/8/2016. These funds will tentatively be used to pay off the 1998 COP's early.

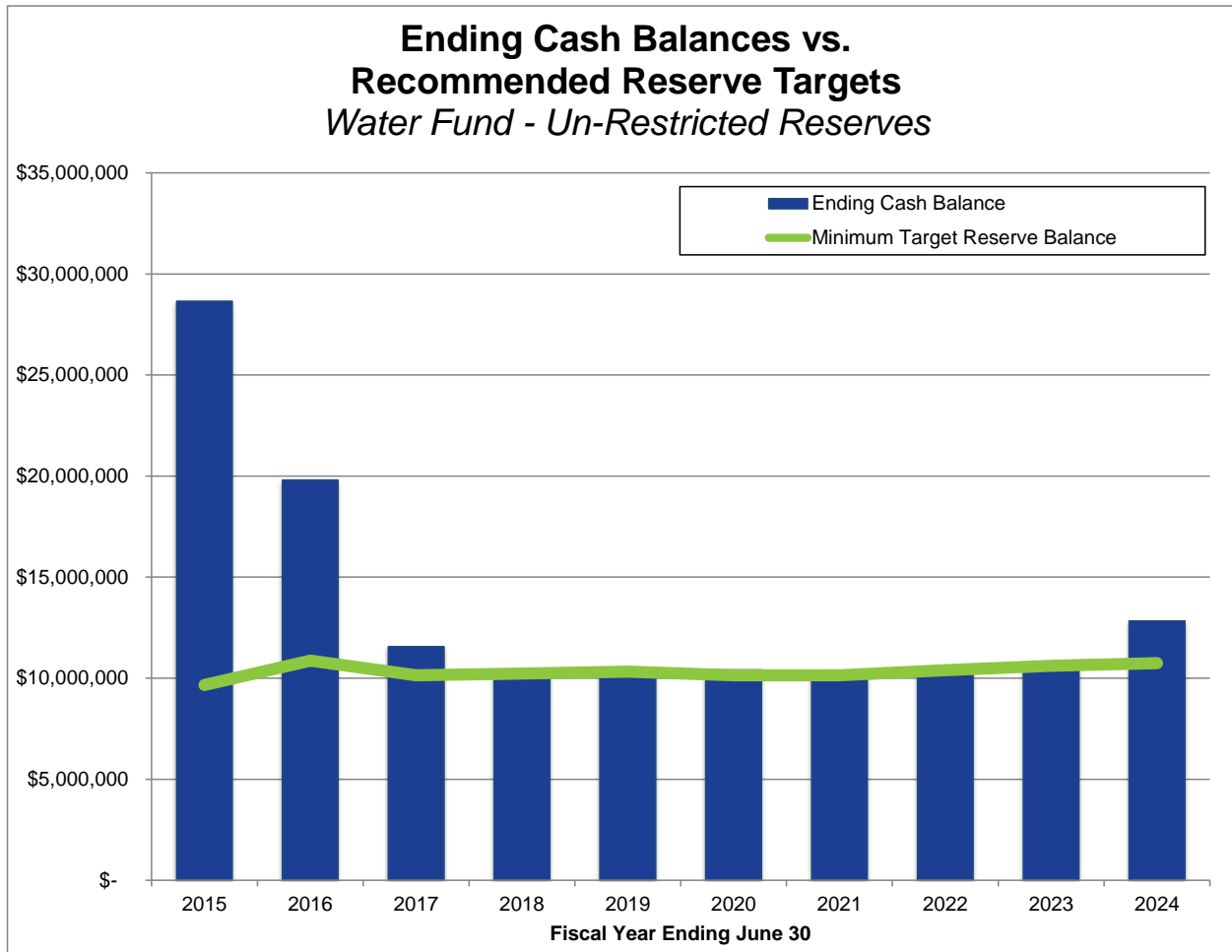
(4) Total beginning OPEB reserve cash balance is per source file: Water cash balance 1-8-16.xlsx.

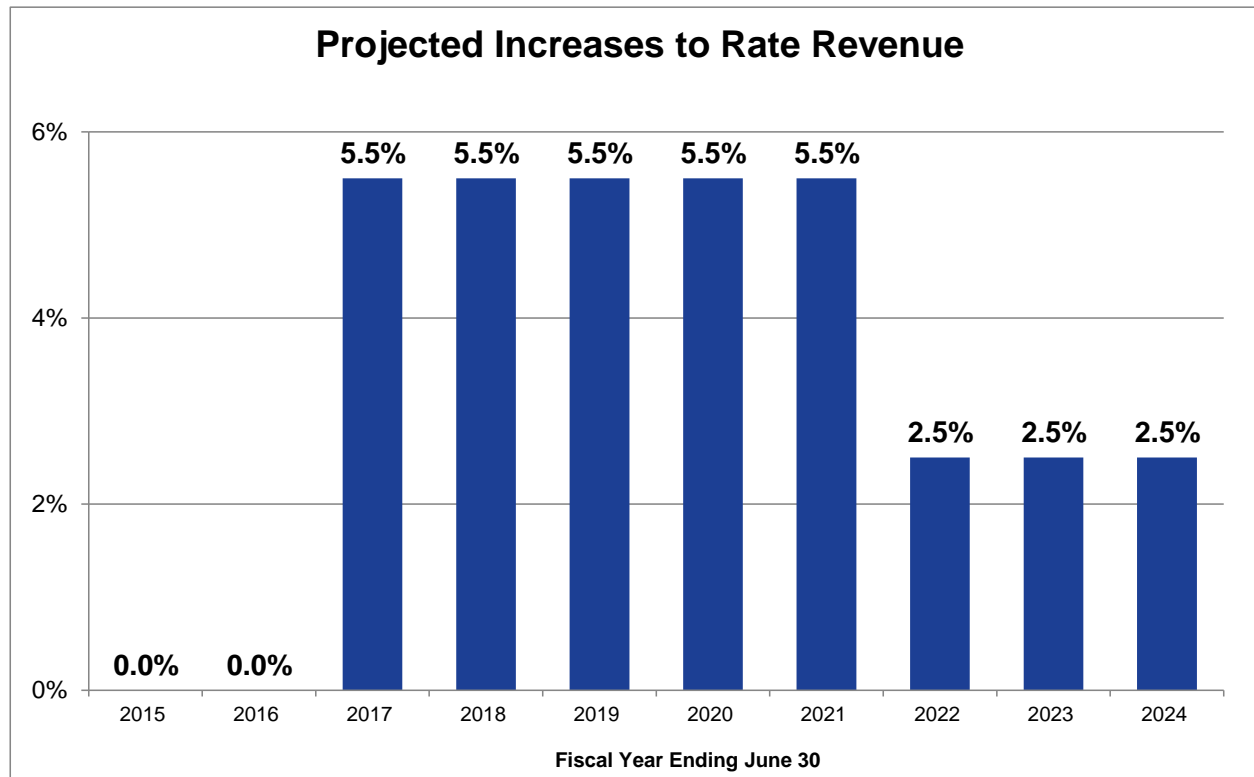
(5) The target ending balance for the OPEB reserve is set to the funding target of \$4.76 million, per Finance Department Staff.

(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.









VICTORVILLE WATER DISTRICT
WATER RATE STUDY
Operating Revenue and Expenses
Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

EXHIBIT 1
Financial Plan Alternative #4

REVENUE FORECAST (1,2)

ORG.	OBJECT	DESCRIPTION	CPI	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Water Sales Revenue:													
4100010	44830	Water Sales-Residential (3)	1	\$ 9,740,661	\$ 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	\$ 1,414,300	\$ 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	\$ 7,934,000	\$ 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 Revenue:													
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	\$ 21,792,570	\$ 20,388,439	\$ 20,532,950	\$ 20,678,739	\$ 20,825,908	\$ 20,859,508	\$ 20,893,708	\$ 20,928,908

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	\$ 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	\$ 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	\$ 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	\$ 1,822,400	\$ 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	\$ 20,928,908	\$ 20,964,808	

VICTORVILLE WATER DISTRICT
WATER RATE STUDY
Operating Revenue and Expenses
Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

EXHIBIT 1
Financial Plan Alternative #4

OPERATING EXPENSE FORECAST (1,2):

ORG.	OBJECT	DESCRIPTION	CPI	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
WATER PURCHASES													
4100500	53030	Purchased Water (8,12)	7	\$ 516,414	\$ 996,600	\$ 283,300	\$ 301,715	\$ 321,326	\$ 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	\$ 79,174	\$ 80,758	\$ 82,373	\$ 84,021	\$ 85,701	\$ 87,415
4100500	53050	Groundwater Replenishment (10,12)	8	\$ 2,872,137	\$ 4,038,700	\$ 771,500	\$ 833,220	\$ 899,878	\$ 971,868	\$ 1,049,617	\$ 1,133,587	\$ 1,224,274	\$ 1,322,215
SUBTOTAL: WATER PURCHASES				\$ 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 OBLIGATION													
4100500	53060	Makeup Obligation (11,12)	9	\$ 285,400	\$ 308,300	\$ 151,500	\$ 163,620	\$ 176,710	\$ 190,846	\$ 206,114	\$ 222,603	\$ 240,411	\$ 259,644
SUBTOTAL: MAKEUP OBLIGATION				\$ 285,400	\$ 308,300	\$ 151,500	\$ 163,620	\$ 176,710	\$ 190,846	\$ 206,114	\$ 222,603	\$ 240,411	\$ 259,644
PRODUCTION POWER													
4100500	52050	Utilities-Production Power (12)	6	\$ 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
SUBTOTAL: 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 SERVICES													
4100500	51100	Full Time Wages	3	\$ 748,971	\$ 944,603	\$ 1,039,063	\$ 1,059,845	\$ 1,081,041	\$ 1,102,662	\$ 1,124,716	\$ 1,147,210	\$ 1,170,154	\$ 1,193,557
4100500	51110	Overtime Wages	4	\$ 48,806	\$ 78,028	\$ 79,589	\$ 81,180	\$ 82,804	\$ 84,460	\$ 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
SUBTOTAL: 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 SERVICES													
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	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
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	\$ 19,247	\$ 19,632	\$ 20,025	\$ 20,425	\$ 20,834	\$ 21,251	\$ 21,676
4100505	52140	Training & Education	2	\$ 3,929	\$ 6,000	\$ 6,120	\$ 6,242	\$ 6,367	\$ 6,495	\$ 6,624	\$ 6,757	\$ 6,892	\$ 7,030
4100505	52201	Fuel	5	\$ 2,563	\$ 5,000	\$ 5,450	\$ 5,941	\$ 6,475	\$ 7,058	\$ 7,693	\$ 8,386	\$ 9,140	\$ 9,963
4100505	52230	Vehicle Expense	12	\$ 35	\$ 2,000	\$ 2,080	\$ 2,163	\$ 2,250	\$ 2,340	\$ 2,433	\$ 2,531	\$ 2,632	\$ 2,737
4100505	52240	Furniture & Small Tools <\$5000	2	\$ 11,147	\$ 15,000	\$ 15,300	\$ 15,606	\$ 15,918	\$ 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	52440	Infrastructure Repairs	2	\$ 76,252	\$ 69,500	\$ 70,890	\$ 72,308	\$ 73,754	\$ 75,229	\$ 76,734	\$ 78,268	\$ 79,834	\$ 81,430
SUBTOTAL: SCADA SERVICES				\$ 222,823	\$ 302,934	\$ 320,237	\$ 327,065	\$ 334,066	\$ 341,245	\$ 348,611	\$ 356,170	\$ 363,931	\$ 371,902

VICTORVILLE WATER DISTRICT
WATER RATE STUDY
Operating Revenue and Expenses
Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

EXHIBIT 1
Financial Plan Alternative #4

OPERATING EXPENSE FORECAST, continued (1,2):

ORG.	OBJECT	DESCRIPTION	CPI	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
QUALITY SERVICES													
4100515	51100	Full Time Wages	3	\$ 57,235	\$ 61,059	\$ 67,165	\$ 68,508	\$ 69,878	\$ 71,276	\$ 72,701	\$ 74,155	\$ 75,639	\$ 77,151
4100515	51110	Overtime Wages	4	\$ 604	\$ 6,542	\$ 6,673	\$ 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	\$ 24,699	\$ 25,193	\$ 25,697	\$ 26,211	\$ 26,735	\$ 27,270	\$ 27,815
4100515	51300	Payroll Taxes	3	\$ 730	\$ 1,557	\$ 1,713	\$ 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	\$ 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	\$ 2,488	\$ 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	\$ 21,649	\$ 22,082	\$ 22,523	\$ 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 SERVICES													
4100535	51100	Full Time Wages	3	\$ 917,826	\$ 1,057,448	\$ 1,163,193	\$ 1,186,457	\$ 1,210,186	\$ 1,234,390	\$ 1,259,077	\$ 1,284,259	\$ 1,309,944	\$ 1,336,143
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	\$ 470,270	\$ 479,676	\$ 489,269	\$ 499,055	\$ 509,036
4100535	51300	Payroll Taxes	3	\$ 14,168	\$ 26,965	\$ 29,662	\$ 30,255	\$ 30,860	\$ 31,477	\$ 32,107	\$ 32,749	\$ 33,404	\$ 34,072
4100535	52060	Telephone	2	\$ 2,358	\$ 6,300	\$ 6,426	\$ 6,555	\$ 6,686	\$ 6,819	\$ 6,956	\$ 7,095	\$ 7,237	\$ 7,381
4100535	52110	Supplies	2	\$ 12,265	\$ 16,000	\$ 16,320	\$ 16,646	\$ 16,979	\$ 17,319	\$ 17,665	\$ 18,019	\$ 18,379	\$ 18,747
4100535	52140	Training & Education	2	\$ 4,378	\$ 4,000	\$ 4,080	\$ 4,162	\$ 4,245	\$ 4,330	\$ 4,416	\$ 4,505	\$ 4,595	\$ 4,687
4100535	52201	Fuel	5	\$ 51,325	\$ 68,000	\$ 74,120	\$ 80,791	\$ 88,062	\$ 95,988	\$ 104,626	\$ 114,043	\$ 124,307	\$ 135,494
4100535	52220	Equipment	2	\$ 45,311	\$ 56,000	\$ 57,120	\$ 58,262	\$ 59,428	\$ 60,616	\$ 61,829	\$ 63,065	\$ 64,326	\$ 65,613
4100535	52230	Vehicle Expense	12	\$ 25,750	\$ 61,100	\$ 63,544	\$ 66,086	\$ 68,729	\$ 71,478	\$ 74,337	\$ 77,311	\$ 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	\$ 15,154	\$ 15,457	\$ 15,766	\$ 16,082	\$ 16,403
4100535	52440	Infrastructure Repairs	2	\$ 390,570	\$ 395,000	\$ 402,900	\$ 410,958	\$ 419,177	\$ 427,561	\$ 436,112	\$ 444,834	\$ 453,731	\$ 462,805
SUBTOTAL: FIELD SERVICES				\$ 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
ENGINEERING SERVICES													
4104500	51100	Full Time Wages	3	\$ 507,121	\$ 580,003	\$ 638,003	\$ 650,763	\$ 663,779	\$ 677,054	\$ 690,595	\$ 704,407	\$ 718,495	\$ 732,865
4104500	51110	Overtime Wages	4	\$ -	\$ 22,807	\$ 23,263	\$ 23,728	\$ 24,203	\$ 24,687	\$ 25,181	\$ 25,684	\$ 26,198	\$ 26,722
4104500	51200	Fringe Benefits	4	\$ 197,005	\$ 181,913	\$ 185,551	\$ 189,262	\$ 193,048	\$ 196,908	\$ 200,847	\$ 204,864	\$ 208,961	\$ 213,140
4104500	51300	Payroll Taxes	3	\$ 7,026	\$ 14,790	\$ 16,269	\$ 16,594	\$ 16,926	\$ 17,265	\$ 17,610	\$ 17,962	\$ 18,322	\$ 18,688
4104500	52110	Supplies	2	\$ 6,234	\$ 6,000	\$ 6,120	\$ 6,242	\$ 6,367	\$ 6,495	\$ 6,624	\$ 6,757	\$ 6,892	\$ 7,030
4104500	52140	Training & Education	2	\$ 430	\$ 1,000	\$ 1,020	\$ 1,040	\$ 1,061	\$ 1,082	\$ 1,104	\$ 1,126	\$ 1,149	\$ 1,172
4104500	52201	Fuel	5	\$ 2,837	\$ 10,500	\$ 11,445	\$ 12,475	\$ 13,598	\$ 14,822	\$ 16,156	\$ 17,610	\$ 19,194	\$ 20,922
4104500	52230	Vehicle Expense	12	\$ 565	\$ 5,000	\$ 5,200	\$ 5,408	\$ 5,624	\$ 5,849	\$ 6,083	\$ 6,327	\$ 6,580	\$ 6,843
4104500	52240	Furniture & Small Tools <\$5000	2	\$ 448	\$ 500	\$ 510	\$ 520	\$ 531	\$ 541	\$ 552	\$ 563	\$ 574	\$ 586
4104500	52300	Contract Services	2	\$ 29,138	\$ 72,000	\$ 73,440	\$ 74,909	\$ 76,407	\$ 77,935	\$ 79,494	\$ 81,084	\$ 82,705	\$ 84,359
4104500	52440	Infrastructure Repairs	2	\$ -	\$ 10,000	\$ 10,200	\$ 10,404	\$ 10,612	\$ 10,824	\$ 11,041	\$ 11,262	\$ 11,487	\$ 11,717
SUBTOTAL: ENGINEERING SERVICES				\$ 750,804	\$ 904,513	\$ 971,022	\$ 991,347	\$ 1,012,156	\$ 1,033,463	\$ 1,055,287	\$ 1,077,645	\$ 1,100,557	\$ 1,124,044

VICTORVILLE WATER DISTRICT
WATER RATE STUDY
Operating Revenue and Expenses
Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

EXHIBIT 1
Financial Plan Alternative #4

OPERATING EXPENSE FORECAST, continued (1,2):

ORG.	OBJECT	DESCRIPTION	CPI	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
ENVIRONMENTAL PROGRAMS													
4100525	51100	Full Time Wages	3	\$ 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	\$ 195	\$ 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
SUBTOTAL: ENVIRONMENTAL PROGRAMS				\$ 346,541	\$ 402,360	\$ 430,632	\$ 439,619	\$ 448,813	\$ 458,221	\$ 467,848	\$ 477,704	\$ 487,793	\$ 498,126
CUSTOMER SERVICES													
4100545	51100	Full Time Wages	3	\$ 1,004,243	\$ 1,032,661	\$ 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	\$ 467,287	\$ 355,952	\$ 363,071	\$ 370,332	\$ 377,739	\$ 385,294	\$ 393,000	\$ 400,860	\$ 408,877	\$ 417,054
4100545	51300	Payroll Taxes	3	\$ 18,550	\$ 26,333	\$ 28,966	\$ 29,546	\$ 30,137	\$ 30,739	\$ 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	\$ 1,145	\$ 1,213	\$ 1,286	\$ 1,363	\$ 1,445	\$ 1,532	\$ 1,624	\$ 1,721
4100545	52060	Telephone	2	\$ 140	\$ 300	\$ 306	\$ 312	\$ 318	\$ 325	\$ 331	\$ 338	\$ 345	\$ 351
4100545	52110	Supplies	2	\$ 140,267	\$ 141,782	\$ 144,618	\$ 147,510	\$ 150,460	\$ 153,469	\$ 156,539	\$ 159,670	\$ 162,863	\$ 166,120
4100545	52140	Training & Education	2	\$ 1,243	\$ 7,788	\$ 7,944	\$ 8,103	\$ 8,265	\$ 8,430	\$ 8,599	\$ 8,771	\$ 8,946	\$ 9,125
4100545	52150	Travel & Meetings	2	\$ 134	\$ 5,250	\$ 5,355	\$ 5,462	\$ 5,571	\$ 5,683	\$ 5,796	\$ 5,912	\$ 6,031	\$ 6,151
4100545	52240	Furniture & Small Tools <\$5000	2	\$ -	\$ 2,400	\$ 2,448	\$ 2,497	\$ 2,547	\$ 2,598	\$ 2,650	\$ 2,703	\$ 2,757	\$ 2,812
4100545	52300	Contract Services	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	\$ 147,127	\$ 88,200	\$ 88,729	\$ 89,262	\$ 89,797	\$ 90,336	\$ 90,336	\$ 90,336	\$ 90,336	\$ 90,336
SUBTOTAL: CUSTOMER SERVICES				\$ 2,090,964	\$ 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

VICTORVILLE WATER DISTRICT
WATER RATE STUDY

Operating Revenue and Expenses

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

OPERATING EXPENSE FORECAST, continued (1,2):

ORG.	OBJECT	DESCRIPTION	CPI	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
METER SERVICES													
4100530	51100	Full Time Wages	3	\$ 476,502	\$ 530,087	\$ 583,096	\$ 594,758	\$ 606,653	\$ 618,786	\$ 631,162	\$ 643,785	\$ 656,660	\$ 669,794
4100530	51110	Overtime Wages	4	\$ 17,086	\$ 76,141	\$ 77,664	\$ 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	\$ 208,877	\$ 213,055	\$ 217,316	\$ 221,662	\$ 226,095	\$ 230,617	\$ 235,229	\$ 239,934	\$ 244,733
4100530	51300	Payroll Taxes	3	\$ 9,415	\$ 13,517	\$ 14,869	\$ 15,166	\$ 15,469	\$ 15,779	\$ 16,094	\$ 16,416	\$ 16,745	\$ 17,079
4100530	52060	Telephone	2	\$ 2,888	\$ 2,400	\$ 2,448	\$ 2,497	\$ 2,547	\$ 2,598	\$ 2,650	\$ 2,703	\$ 2,757	\$ 2,812
4100530	52110	Supplies	2	\$ 3,646	\$ 4,000	\$ 4,080	\$ 4,162	\$ 4,245	\$ 4,330	\$ 4,416	\$ 4,505	\$ 4,595	\$ 4,687
4100530	52140	Training & Education	2	\$ 505	\$ 2,000	\$ 2,040	\$ 2,081	\$ 2,122	\$ 2,165	\$ 2,208	\$ 2,252	\$ 2,297	\$ 2,343
4100530	52201	Fuel	5	\$ 37,106	\$ 41,100	\$ 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	\$ 28,000	\$ 29,120	\$ 30,285	\$ 31,496	\$ 32,756	\$ 34,066	\$ 35,429	\$ 36,846	\$ 38,320
4100530	52240	Furniture & Small Tools <\$5000	2	\$ 733	\$ 15,000	\$ 15,300	\$ 15,606	\$ 15,918	\$ 16,236	\$ 16,561	\$ 16,892	\$ 17,230	\$ 17,575
4100530	52300	Contract Services	2	\$ 6,937	\$ 10,000	\$ 10,200	\$ 10,404	\$ 10,612	\$ 10,824	\$ 11,041	\$ 11,262	\$ 11,487	\$ 11,717
4100530	52440	Infrastructure Repairs	2	\$ 33,200	\$ 35,000	\$ 35,700	\$ 36,414	\$ 37,142	\$ 37,885	\$ 38,643	\$ 39,416	\$ 40,204	\$ 41,008
4100530	52445	Meter Service Installations	2	\$ 8,364	\$ 31,000	\$ 31,620	\$ 32,252	\$ 32,897	\$ 33,555	\$ 34,227	\$ 34,911	\$ 35,609	\$ 36,321
4100530	52446	Meter Service Change outs	11	\$ 1,002,933	\$ 2,000,000	\$ 2,060,000	\$ 2,121,800	\$ 2,185,454	\$ 2,251,000	\$ 2,317,000	\$ 2,383,000	\$ 2,450,000	\$ 2,517,000
SUBTOTAL: METER SERVICES				\$ 1,846,028	\$ 2,997,122	\$ 3,123,990	\$ 3,210,788	\$ 3,300,246	\$ 3,392,443	\$ 3,484,988	\$ 3,578,176	\$ 3,671,620	\$ 3,765,385
ADMINISTRATIVE SERVICES													
4100030	51100	Full Time Wages	3	\$ 629,131	\$ 565,963	\$ 622,559	\$ 635,010	\$ 647,711	\$ 660,665	\$ 673,878	\$ 687,356	\$ 701,103	\$ 715,125
4100030	51110	Overtime Wages	4	\$ 173	\$ 145,192	\$ 148,096	\$ 151,058	\$ 154,079	\$ 157,160	\$ 160,304	\$ 163,510	\$ 166,780	\$ 170,116
4100030	51200	Fringe Benefits	4	\$ 224,467	\$ 162,533	\$ 165,784	\$ 169,099	\$ 172,481	\$ 175,931	\$ 179,450	\$ 183,039	\$ 186,699	\$ 190,433
4100030	51220	Retiree Health Care	4	\$ (63,235)	\$ 357,000	\$ 364,140	\$ 371,423	\$ 378,851	\$ 386,428	\$ 394,157	\$ 402,040	\$ 410,081	\$ 418,282
4100030	51300	Payroll Taxes	3	\$ 6,826	\$ 14,432	\$ 15,875	\$ 16,193	\$ 16,517	\$ 16,847	\$ 17,184	\$ 17,528	\$ 17,878	\$ 18,236
4100030	52010	Utilities-Electricity	6	\$ 39,915	\$ 48,300	\$ 50,812	\$ 53,454	\$ 56,233	\$ 59,158	\$ 62,234	\$ 65,470	\$ 68,874	\$ 72,456
4100030	52020	Utilities-Water Usage	13	\$ 10,043	\$ 10,100	\$ 10,706	\$ 11,348	\$ 12,029	\$ 12,751	\$ 13,516	\$ 14,327	\$ 15,187	\$ 16,098
4100030	52030	Utilities-Natural Gas	13	\$ 4,241	\$ 5,100	\$ 5,406	\$ 5,730	\$ 6,074	\$ 6,439	\$ 6,825	\$ 7,234	\$ 7,669	\$ 8,129
4100030	52040	Utilities-Sanitation	13	\$ 4,045	\$ 8,800	\$ 9,328	\$ 9,888	\$ 10,481	\$ 11,110	\$ 11,776	\$ 12,483	\$ 13,232	\$ 14,026
4100030	52060	Telephone	2	\$ 22,813	\$ 26,000	\$ 26,520	\$ 27,050	\$ 27,591	\$ 28,143	\$ 28,706	\$ 29,280	\$ 29,866	\$ 30,463
4100030	52110	Supplies	2	\$ 5,489	\$ 9,000	\$ 9,180	\$ 9,364	\$ 9,551	\$ 9,742	\$ 9,937	\$ 10,135	\$ 10,338	\$ 10,545
4100030	52130	Subs, Publications & Memberships	2	\$ 5,569	\$ 24,000	\$ 24,480	\$ 24,970	\$ 25,469	\$ 25,978	\$ 26,498	\$ 27,028	\$ 27,568	\$ 28,120
4100030	52140	Training & Education	2	\$ 5,768	\$ 3,000	\$ 3,060	\$ 3,121	\$ 3,184	\$ 3,247	\$ 3,312	\$ 3,378	\$ 3,446	\$ 3,515
4100030	52150	Travel & Meetings	2	\$ 1,089	\$ 500	\$ 510	\$ 520	\$ 531	\$ 541	\$ 552	\$ 563	\$ 574	\$ 586
4100030	52160	Marketing Promotions	2	\$ 30,079	\$ 62,500	\$ 63,750	\$ 65,025	\$ 66,326	\$ 67,652	\$ 69,005	\$ 70,385	\$ 71,793	\$ 73,229
4100030	52170	Legal Notices	2	\$ 2,029	\$ 3,000	\$ 3,060	\$ 3,121	\$ 3,184	\$ 3,247	\$ 3,312	\$ 3,378	\$ 3,446	\$ 3,515
4100030	52201	Fuel	5	\$ 6,108	\$ 5,000	\$ 5,450	\$ 5,941	\$ 6,475	\$ 7,058	\$ 7,693	\$ 8,386	\$ 9,140	\$ 9,963
4100030	52230	Vehicle Expense	12	\$ 1,121	\$ 1,000	\$ 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	\$ 45,000	\$ 45,900	\$ 46,818	\$ 47,754	\$ 48,709	\$ 49,684	\$ 50,677	\$ 51,691	\$ 52,725
4100030	52300	Contract Services	2	\$ 140,862	\$ 112,500	\$ 114,750	\$ 117,045	\$ 119,386	\$ 121,774	\$ 124,209	\$ 126,693	\$ 129,227	\$ 131,812
4100030	52340	Insurance	2	\$ 217,773	\$ 235,000	\$ 239,700	\$ 244,494	\$ 249,384	\$ 254,372	\$ 259,459	\$ 264,648	\$ 269,941	\$ 275,340
4100030	52350	Legal	2	\$ 137,265	\$ 260,000	\$ 265,200	\$ 270,504	\$ 275,914	\$ 281,432	\$ 287,061	\$ 292,802	\$ 298,658	\$ 304,631
4100030	52360	Federal, State & Local Fees	2	\$ 25,828	\$ 37,000	\$ 37,740	\$ 38,495	\$ 39,265	\$ 40,050	\$ 40,851	\$ 41,668	\$ 42,501	\$ 43,351
4100030	52410	Building Maintenance	2	\$ 3,892	\$ 15,000	\$ 15,300	\$ 15,606	\$ 15,918	\$ 16,236	\$ 16,561	\$ 16,892	\$ 17,230	\$ 17,575
4100030	52450	Vandalism	2	\$ 9,167	\$ 10,000	\$ 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	\$ 1,312,129	\$ 1,338,372	\$ 1,365,139	\$ 1,392,442	\$ 1,420,291	\$ 1,448,696	\$ 1,477,670	\$ 1,507,224	\$ 1,537,368
4101515	52300	Contract Services (12)	2	\$ -	\$ 18,200	\$ 18,564	\$ 18,935	\$ 19,314	\$ 19,700	\$ 20,094	\$ 20,496	\$ 20,906	\$ 21,324
SUBTOTAL: ADMINISTRATIVE SERVICES				\$ 2,769,584	\$ 3,496,249	\$ 3,615,481	\$ 3,690,837	\$ 3,767,880	\$ 3,846,656	\$ 3,927,212	\$ 4,009,595	\$ 4,093,856	\$ 4,180,047
CAPITAL PURCHASES													
4100010	52460	Capital Purchases (13)	13	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
SUBTOTAL: CAPITAL PURCHASES				\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
GRAND TOTAL: WATER OPERATING EXPENSES				\$ 17,786,838	\$ 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

VICTORVILLE WATER DISTRICT
WATER RATE STUDY
Operating Revenue and Expenses
Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

EXHIBIT 1
Financial Plan Alternative #4

NON-CASH ITEMS, EXCLUDED FROM ABOVE:

ORG.	OBJECT	DESCRIPTION	CPI	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
DEPRECIATION													
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-31511712020)
- (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.

VICTORVILLE WATER DISTRICT
WATER RATE STUDY
Capital Improvement Plan Expenditures

EXHIBIT 2
Financial Plan Alternative #4

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

CAPITAL FUNDING SUMMARY

CAPITAL FUNDING FORECAST	Estimate		Projected							
	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
Funding Sources:										
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)	\$ -	\$ (600,000)	\$ (2,500,000)	\$ (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

VICTORVILLE WATER DISTRICT
WATER RATE STUDY
Capital Improvement Plan Expenditures

EXHIBIT 2
Financial Plan Alternative #4

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	\$ -	\$ -	\$ -	\$ (1,166,990)	\$ (1,966,909)	\$ -	\$ (695,564)	\$ (2,985,131)	\$ (1,229,874)	\$ -
Total: Capital Improvement Program Costs (Future-Year Dollars)	\$ 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 with cost inflation edited.xlsx).

(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.

WATER RATE STUDY

Cost of Service Analysis

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

Classification of Expenses									
Budget Categories	Total Revenue Requirements	Commodity	Capacity	Customer	Fire Protection	Basis of Classification			
	FY 2016/17	(COM)	(CAP)	(CA)	(FP)	(COM)	(CAP)	(CA)	(FP)
4100500 - WATER PURCHASES									
Purchased Water	\$ 283,300	\$ 283,300	\$ -	\$ -	\$ -	100%	0%	0%	0%
Groundwater Assessment	\$ 76,100	\$ 76,100	\$ -	\$ -	\$ -	100%	0%	0%	0%
Groundwater Replenishment	\$ 771,500	\$ 771,500	\$ -	\$ -	\$ -	100%	0%	0%	0%
SUBTOTAL: WATER PURCHASES	\$ 1,130,900	\$ 1,130,900	\$ -	\$ -	\$ -	100%	0%	0%	0%
4100500 - MAKEUP OBLIGATION									
Makeup Obligation	\$ 151,500	\$ 151,500	\$ -	\$ -	\$ -	100%	0%	0%	0%
SUBTOTAL: MAKEUP OBLIGATION	\$ 151,500	\$ 151,500	\$ -	\$ -	\$ -	100%	0%	0%	0%
4100500 - PRODUCTION POWER									
Utilities-Production Power	\$ 1,965,031	\$ 1,965,031	\$ -	\$ -	\$ -	100%	0%	0%	0%
SUBTOTAL: PRODUCTION POWER	\$ 1,965,031	\$ 1,965,031	\$ -	\$ -	\$ -	100%	0%	0%	0%
4100500 - SUPPLY SERVICES									
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	\$ -	\$ 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)									
Full Time Wages	\$ 67,165	\$ -	\$ 65,847	\$ -	\$ 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	\$ -	\$ -	\$ -	\$ -	\$ -	49%	49%	0%	2%
Supplies	\$ 146,880	\$ 143,998	\$ -	\$ -	\$ 2,882	98%	0%	0%	2%
Training & Education	\$ 510	\$ 250	\$ 250	\$ -	\$ 10	49%	49%	0%	2%
Fuel	\$ 4,033	\$ 1,978	\$ 1,976	\$ -	\$ 79	49%	49%	0%	2%
Vehicle Expense	\$ 2,392	\$ 1,173	\$ 1,172	\$ -	\$ 47	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%
Federal, State & Local Fees	\$ 22,440	\$ 11,004	\$ 10,996	\$ -	\$ 440	49%	49%	0%	2%
Infrastructure Repairs	\$ 20,400	\$ 10,004	\$ 9,996	\$ -	\$ 400	49%	49%	0%	2%
SUBTOTAL: QUALITY SERVICES	\$ 491,750	\$ 359,654	\$ 122,447	\$ -	\$ 9,649	73%	25%	0%	2%

WATER RATE STUDY

Cost of Service Analysis

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

Classification of Expenses									
Budget Categories	Total Revenue Requirements	Commodity	Capacity	Customer	Fire Protection	Basis of Classification			
	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%
Computer Related Equip <\$5000	\$ -	\$ -	\$ -	\$ -	\$ -	0%	95%	4%	1%
Contract Services	\$ 14,280	\$ -	\$ 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									
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-Natural Gas	\$ 207	\$ -	\$ 194	\$ 8	\$ 4	0%	94%	4%	2%
Telephone	\$ 408	\$ -	\$ 384	\$ 16	\$ 8	0%	94%	4%	2%
Supplies	\$ 4,692	\$ -	\$ 4,412	\$ 188	\$ 92	0%	94%	4%	2%
Training & Education	\$ 1,224	\$ -	\$ 1,151	\$ 49	\$ 24	0%	94%	4%	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%

Classification of Expenses									
Budget Categories	Total Revenue Requirements	Commodity	Capacity	Customer	Fire Protection	Basis of Classification			
	FY 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	\$ -	\$ -	\$ -	\$ -	\$ -	0%	0%	99%	1%
Federal, State & Local Fees	\$ 8,160	\$ -	\$ -	\$ 8,077	\$ 83	0%	0%	99%	1%
Building Maintenance	\$ -	\$ -	\$ -	\$ -	\$ -	0%	0%	99%	1%
Uncollectable Write-Offs	\$ 88,729	\$ -	\$ -	\$ 87,830	\$ 899	0%	0%	99%	1%
SUBTOTAL: CUSTOMER SERVICES	\$ 2,124,402	\$ -	\$ -	\$ 2,102,877	\$ 21,525	0%	0%	99%	1%
4100530 - METER SERVICES									
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%
Part Time Wages	\$ -	\$ -	\$ -	\$ -	\$ -	0%	49%	49%	1%
Fringe Benefits	\$ 213,055	\$ -	\$ 105,448	\$ 105,448	\$ 2,159	0%	49%	49%	1%
Payroll Taxes	\$ 14,869	\$ -	\$ 7,359	\$ 7,359	\$ 151	0%	49%	49%	1%
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	\$ 526,605	\$ 31,653	0%	82%	17%	1%

WATER RATE STUDY

Cost of Service Analysis

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

Classification of Expenses									
Budget Categories	Total Revenue Requirements	Commodity	Capacity	Customer	Fire Protection	Basis of Classification			
	FY 2016/17	(COM)	(CAP)	(CA)	(FP)	(COM)	(CAP)	(CA)	(FP)
4100030 - ADMINISTRATIVE SERVICES									
Full Time Wages	\$ 622,559	\$ -	\$ 585,441	\$ 24,902	\$ 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	\$ 408	\$ 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	\$ -	\$ -	\$ -	\$ -	\$ -	0%	0%	0%	0%
TOTAL OPERATING EXPENSES	\$ 19,172,890	\$ 4,060,481	\$ 11,949,468	\$ 2,926,036	\$ 236,905	21%	62%	15%	1%

Classification of Expenses, continued									
Budget Categories	Total Revenue Requirements	Commodity	Capacity	Customer	Fire Protection	Basis of Classification			
	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	\$ -	\$ -	\$ -	\$ -	\$ -	0%	98%	0%	2%
TOTAL REVENUE REQUIREMENTS	\$ 19,172,890	\$ 4,060,481	\$ 11,949,468	\$ 2,926,036	\$ 236,905	21%	62%	15%	1%
Less: Non-Rate Revenues									
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)	\$ -	\$ -	\$ -	\$ -	\$ -	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)	\$ -	\$ -	\$ -	\$ -	\$ -	21%	62%	15%	1%
Revenue from Property Sale (7)	\$ -	\$ -	\$ -	\$ -	\$ -	21%	62%	15%	1%
NET REVENUE REQUIREMENTS	\$ 17,487,353	\$ 4,039,506	\$ 11,887,744	\$ 1,344,025	\$ 216,078				
Allocation of Revenue Requirements	100.0%	23.1%	68.0%	7.7%	1.2%				

Net Revenue Req't. 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
<i>Percent of Revenue</i>		<i>23.1%</i>	<i>68.0%</i>	<i>7.7%</i>	<i>1.2%</i>

VICTORVILLE WATER DISTRICT
WATER RATE STUDY

Financial Plan Alternative #4

Water Cost of Service Analysis

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

Development of the BASE CAPACITY Allocation Factor				
Customer Class	FY 2013/14 Volume (hcf) ¹	% Adjustment for Conservation ²	Estimated Volume Adjusted for Conservation	Percent of Total Volume
<i>Treated Water:</i>				
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%
<i>Other Non-Recurring Consumption</i>				
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.

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.

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 MONTH) Allocation Factors				
Customer Class	Average Monthly Use (hcf)	Peak Monthly Use ¹ (hcf)	Peak Month Factor	Max Month Capacity Factor
<i>Treated Water:</i>				
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%
<i>Other Non-Recurring Consumption</i>				
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.

VICTORVILLE WATER DISTRICT

Financial Plan Alternative #4

WATER RATE STUDY

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
<i>Treated Water:</i>		
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%
<i>Other Non-Recurring Consumption</i>		
Commercial Flow Meter	36	0.10%
Municipal Flow Meter	19	0.05%
Intertie	3	0.01%
Total: Non-Recurring Meters	58	0.16%

1. 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. Other customers consists primarily of governmental customers (the City, special districts, other agencies) and churches.

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. Free Production Allowance is established annually by the court.
3. Updated total production amount was provided by District Staff on 8/3/2015.

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 assess 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

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

1. 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	<u>\$1.111</u>	\$1.198	\$1.294	\$1.398	\$1.510	\$1.630
53030	Purchased Water	7	<u>\$0.287</u>	\$0.306	\$0.325	\$0.347	\$0.369	\$0.393
52050	Utilities-Production Power	6	<u>\$0.050</u>	\$0.053	\$0.056	\$0.058	\$0.061	\$0.065
	Marginal Cost Per HCF - Production		\$1.448	\$1.557	\$1.675	\$1.803	\$1.940	\$2.088
	Adjustment for Non-revenued Water (System Loss)	12.3%	<u>\$0.18</u>	<u>\$0.192</u>	<u>\$0.207</u>	<u>\$0.222</u>	<u>\$0.239</u>	<u>\$0.258</u>
	Marginal Cost Per HCF - Consumption		\$1.627	\$1.749	\$1.882	\$2.025	\$2.180	\$2.346

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
Capacity-Related Costs		\$ 12,997,363	\$ 6,676,755	\$ 6,867,793	\$ 7,051,933	\$ 7,227,162
Customer-Related Costs		\$ 1,469,478	\$ 754,872	\$ 776,471	\$ 797,289	\$ 817,101
Fire Protection-Related Costs		\$ 236,247	\$ 236,247	\$ 250,736	\$ 266,114	\$ 297,969
Target Rate Revenue		\$ 19,119,648	19,119,648	20,292,256	21,536,780	22,857,630

Meter Equivalency Factors Used in Fixed Charge Calculation:

Meter Size	Standard Meters		Fire Service Meters	
	Meter Capacity (gpm) ¹	Equivalency to 3/4-inch	Meter Capacity (gpm)	Equivalency to 3/4-inch
	<i>Displacement</i>		<i>Displacement¹</i>	
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
	<i>Compound Type Class I</i>		<i>Fire Service Type I & II²</i>	
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
	<i>Turbine Class II</i>			
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.

Allocation of Net Revenue Requirements - FY 2016/17

Customer Classes	Classification Components				Cost of Service Net Rev. Reqts	% of COS Net Revenue Reqts
	Commodity-Related	Capacity-Related	Customer-Related	Fire Protection-Related		
Single Family Residential	\$ 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 2016/17

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

Number of Meters by Class and Size ¹	FY 2016/17									Total	
	3/4 inch	1 inch	1.5 inch	2 inch	3 inch	4 inch	6 inch	8 inch	10 inch		
Single Family Residential	31,493	1,369	-	-	-	-	-	-	-	-	32,862
Multi-Family Residential	122	109	154	113	35	17	27	17	2	2	596
Commercial	223	155	149	198	23	15	2	12	4	4	781
Irrigation	9	5	9	25	6	4	-	-	-	-	58
Municipal Irrigation	20	25	86	53	3	6	4	3	-	-	200
Other	74	37	39	65	26	21	5	13	2	2	282
Total Meters/Accounts	31,941	1,700	437	454	93	63	38	45	8	8	34,779
<i>Hydraulic Capacity Factor²</i>	1.00	1.67	3.33	5.33	10.67	16.67	33.33	93.33	140.00		
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	\$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										
Capacity Costs	6,676,755										
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 MONTHLY FIXED METER SERVICE CHARGES FOR FY 2016/17

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

Number of Meters by Class and Size ⁵	FY 2016/17									Total	
	3/4 inch	1 inch	1.5 inch	2 inch	3 inch	4 inch	6 inch	8 inch	10 inch		
Fire	-	-	-	-	6	31	79	170	39		325
Total Meters/Accounts					6	31	79	170	39		325
<i>Hydraulic Capacity Factor²</i>	1.00	1.67	3.33	5.33	11.67	23.33	53.33	93.33	146.67		
Total Equivalent Meters					70	723	4,213	15,867	5,720		26,593
Monthly Fixed Service Charges											
Customer Costs (\$/Acct/month) ³	\$1.96	\$1.96	\$1.96	\$1.96	\$1.96	\$1.96	\$1.96	\$1.96	\$1.96	\$1.96	
Capacity Costs (\$/Acct/month) ⁴	\$0.74	\$1.23	\$2.47	\$3.95	8.64	17.27	39.48	69.10	108.58		
Total Monthly Meter Charge	\$2.70	\$3.20	\$4.43	\$5.91	\$10.60	\$19.24	\$41.44	\$71.06	\$110.54		
Annual Fixed Costs Allocated to Monthly Meter Charges											
Customer Costs	\$ 7,649										
Capacity & Fire Protection Costs	236,247										
Total Fixed Meter Costs	\$ 243,896										
Annual Revenue from Monthly Meter Charges											
Customer Charges	\$ -	\$ -	\$ -	\$ -	\$ 141	\$ 730	\$ 1,859	\$ 4,001	\$ 918		\$ 7,649
Capacity Charges	-	-	-	-	622	6,426	37,430	140,955	50,815		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.)

Allocation of Net Revenue Requirements - FY 2017/18

Customer Classes	Classification Components				Cost of Service Net Rev. Reqts	% of COS Net Revenue Reqts
	Commodity-Related	Capacity-Related	Customer-Related	Fire Protection-Related		
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 2017/18

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

Number of Meters by Class and Size ¹	FY 2017/18									Total	
	3/4 inch	1 inch	1.5 inch	2 inch	3 inch	4 inch	6 inch	8 inch	10 inch		
Single Family Residential	31,682	1,377	-	-	-	-	-	-	-	-	33,059
Multi-Family Residential	123	110	155	114	35	17	27	17	2	2	600
Commercial	224	156	150	199	23	15	2	12	4	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	2	284
Total Meters/Accounts	32,133	1,710	440	457	94	63	38	45	8	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	\$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 Meter 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 2017/18

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

Number of Meters by Class and Size ⁵	FY 2017/18									Total	
	3/4 inch	1 inch	1.5 inch	2 inch	3 inch	4 inch	6 inch	8 inch	10 inch		
Fire	-	-	-	-	6	31	79	171	39		327
Total Meters/Accounts	-	-	-	-	6	31	79	171	39		327
Hydraulic Capacity Factor ²	1.00	1.67	3.33	5.33	11.67	23.33	53.33	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	\$2.01	\$2.01	\$2.01	\$2.01	\$2.01	\$2.01	\$2.01	\$2.01	\$2.01	
Capacity Costs (\$/Acct/month) ⁴	\$0.78	\$1.30	\$2.60	\$4.17	9.11	18.22	41.65	72.90	114.55		
Total Monthly Meter Charge	\$2.79	\$3.31	\$4.61	\$6.17	\$11.12	\$20.23	\$43.66	\$74.90	\$116.56		
Annual Fixed Costs Allocated to Monthly Meter Charges											
Customer Costs	\$ 7,867										
Capacity & Fire Protection Costs	250,736										
Total Fixed Meter Costs	\$ 258,604										
Annual Revenue from Monthly Meter Charges											
Customer Charges	\$ -	\$ -	\$ -	\$ -	\$ 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	\$ -	\$ -	\$ -	\$ -	\$ 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.)

Allocation of Net Revenue Requirements - FY 2018/19

Customer Classes	Classification Components				Cost of Service Net Rev. Reqts	% of COS Net Revenue Reqts
	Commodity-Related	Capacity-Related	Customer-Related	Fire Protection-Related		
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 2018/19

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

Number of Meters by Class and Size ¹	FY 2018/19									Total	
	3/4 inch	1 inch	1.5 inch	2 inch	3 inch	4 inch	6 inch	8 inch	10 inch		
Single Family Residential	31,872	1,385	-	-	-	-	-	-	-	-	33,258
Multi-Family Residential	123	110	156	114	35	17	27	17	2	2	603
Commercial	226	157	151	200	23	15	2	12	4	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	2	285
Total Meters/Accounts	32,325	1,720	442	459	94	64	38	46	8	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	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	\$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	\$1,719.38	\$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	\$1,721.25	
Annual Fixed Costs Allocated to Monthly Meter 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	\$ 182	\$ 789,211
Capacity Charges	4,763,981	422,590	217,261	361,140	147,956	156,607	188,923	626,427	167,047	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	\$ 167,229	\$ 7,841,144

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

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

Number of Meters by Class and Size ⁵	FY 2018/19									Total	
	3/4 inch	1 inch	1.5 inch	2 inch	3 inch	4 inch	6 inch	8 inch	10 inch		
Fire	-	-	-	-	6	31	80	172	39	39	329
Total Meters/Accounts	-	-	-	-	6	31	80	172	39	39	329
Hydraulic Capacity Factor ²	1.00	1.67	3.33	5.33	11.67	23.33	53.33	93.33	146.67	146.67	146.67
Total Equivalent Meters	-	-	-	-	71	732	4,264	16,058	5,789	5,789	26,913
Monthly Fixed Service Charges											
Customer Costs (\$/Acct/month) ³	\$2.05	\$2.05	\$2.05	\$2.05	\$2.05	\$2.05	\$2.05	\$2.05	\$2.05	\$2.05	\$2.05
Capacity Costs (\$/Acct/month) ⁴	\$0.82	\$1.37	\$2.75	\$4.39	9.61	19.23	43.95	76.91	120.85	120.85	120.85
Total Monthly Meter Charge	\$2.87	\$3.42	\$4.79	\$6.44	\$11.66	\$21.27	\$45.99	\$78.95	\$122.90	\$122.90	
Annual Fixed Costs Allocated to Monthly Meter Charges											
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	\$ 969	\$ 8,078
Capacity Charges	-	-	-	-	700	7,238	42,162	158,775	57,239	57,239	266,114
Total Revenue from Monthly Meter Charges	\$ -	\$ -	\$ -	\$ -	\$ 850	\$ 8,009	\$ 44,126	\$ 163,000	\$ 58,208	\$ 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.)

Allocation of Net Revenue Requirements - FY 2019/20

Customer Classes	Classification Components				Cost of Service Net Rev. Reqts	% of COS Net Revenue Reqts
	Commodity-Related	Capacity-Related	Customer-Related	Fire Protection-		
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 2019/20

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

Number of Meters by Class and Size ¹	FY 2019/20									Total
	3/4 inch	1 inch	1.5 inch	2 inch	3 inch	4 inch	6 inch	8 inch	10 inch	
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 Meter 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 2019/20

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

Number of Meters by Class and Size ⁵	FY 2019/20									Total
	3/4 inch	1 inch	1.5 inch	2 inch	3 inch	4 inch	6 inch	8 inch	10 inch	
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	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	\$2.09	\$2.09	\$2.09	\$2.09	\$2.09	\$2.09	\$2.09	\$2.09	
Capacity Costs (\$/Acct/month) ⁴	\$0.87	\$1.45	\$2.90	\$4.64	10.14	20.28	46.36	81.13	127.50	
Total Monthly Meter Charge	\$2.95	\$3.53	\$4.98	\$6.72	\$12.23	\$22.37	\$48.45	\$83.22	\$129.58	
Annual Fixed Costs Allocated to Monthly Meter Charges										
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.)

Allocation of Net Revenue Requirements - FY 2020/21

Customer Classes	Classification Components				Cost of Service Net Rev. Reqts	% of COS Net Revenue Reqts
	Commodity-Related	Capacity-Related	Customer-Related	Fire Protection-		
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)

Number of Meters by Class and Size ¹	FY 2020/21									Total
	3/4 inch	1 inch	1.5 inch	2 inch	3 inch	4 inch	6 inch	8 inch	10 inch	
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										
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 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

CALCULATION OF MONTHLY FIXED METER SERVICE CHARGES FOR FY 2020/21 **Net Revenue Requirements (35% Fixed / 65% Variable)**

Number of Meters by Class and Size ⁵	FY 2020/21									Total
	3/4 inch	1 inch	1.5 inch	2 inch	3 inch	4 inch	6 inch	8 inch	10 inch	
Fire	-	-	-	-	6	32	81	174	40	333
Total Meters/Accounts	-	-	-	-	6	32	81	174	40	333
Hydraulic Capacity Factor ²	1.00	1.67	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 Meter Charges										
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	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	Target Rev. Req't from Vol. Charges	% of Total Rate Revenue	Uniform Commodity Rates (\$/hcf)	Proposed Rate Structure
<i>Treated Water:</i>						
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

Estimated Revenue from Flow Meters and Intertie Connections, Based on FY 2013/14 Consumption:

Customer Classes	Number of Meters ¹	Water Consumption (hcf/yr.) ²	Estimated 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

1. 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/vr.) ²	Target Rev. Req't from Vol. Charges	% of Total Rate Revenue	Uniform Commodity Rates (\$/hcf)	Proposed Rate Structure
<i>Treated Water:</i>						
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/vr.) ²	Total Target Rev. Req't.	Average Cost Per Unit (\$/hcf)
All Treated Water	6,587,430	\$ 20,292,256	\$3.080

Estimated Revenue from Flow Meters and Intertie Connections, Based on FY 2013/14 Consumption:

Customer Classes	Number of Meters ¹	Water Consumption (hcf/vr.) ²	Estimated 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

1. 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/vr.) ²	Target Rev. Req't from Vol. Charges	% of Total Rate Revenue	Uniform Commodity Rates (\$/hcf)	Proposed Rate Structure
<i>Treated Water:</i>						
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/vr.) ²	Total Target Rev. Req't.	Average Cost Per Unit (\$/hcf)
All Treated Water	6,626,954	\$ 21,536,780	\$3.250

Estimated Revenue from Flow Meters and Intertie Connections, Based on FY 2013/14 Consumption:

Customer Classes	Number of Meters ¹	Water Consumption (hcf/vr.) ²	Estimated 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

1. 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/vr.) ²	Target Rev. Req't from Vol. Charges	% of Total Rate Revenue	Uniform Commodity Rates (\$/hcf)	Proposed Rate Structure
<i>Treated Water:</i>						
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/vr.) ²	Total Target Rev. Req't.	Average Cost Per Unit (\$/hcf)
All Treated Water	6,666,716	\$ 22,857,630	\$3.429

Estimated Revenue from Flow Meters and Intertie Connections, Based on FY 2013/14 Consumption:

Customer Classes	Number of Meters ¹	Water Consumption (hcf/vr.) ²	Estimated 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

1. 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/vr.) ²	Target Rev. Req't from Vol. Charges	% of Total Rate Revenue	Uniform Commodity Rates (\$/hcf)	Proposed Rate Structure
<i>Treated Water:</i>						
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/vr.) ²	Total Target Rev. Req't.	Average Cost Per Unit (\$/hcf)
All Treated Water	6,706,716	\$ 24,114,800	\$3.596

Estimated Revenue from Flow Meters and Intertie Connections, Based on FY 2013/14 Consumption:

Customer Classes	Number of Meters ¹	Water Consumption (hcf/vr.) ²	Estimated 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

1. 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

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

Conservation to FY 2013/14 Level	Fiscal Year 2016/17 Estimates									
	Production	Net Revenue Requirement	Marginal Water Cost Adjustment	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:

Conservation to FY 2013/14 Level	Consumption	Costs to Recover	Drought Surcharge (\$/hcf)	Estimated Rate + Drought Surcharge Revenue				Total Revenue Requirement	Excess (Shortfall)
				Fixed Revenue	Variable Revenue	Drought Surcharge Revenue	Total Revenue		
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	Consumption	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

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:

Conservation to FY 2013/14 Level	Fiscal Year 2017/18 Estimates									
	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%	11,548,142	\$ 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 to FY 2013/14 Level	Consumption	Costs to Recover	Drought Surcharge (\$/hcf)	Estimated Rate + Drought Surcharge Revenue				Total Revenue Requirement	Excess (Shortfall)
				Fixed Revenue	Variable Revenue	Drought Surcharge Revenue	Total Revenue		
40%	5,489,525	\$ 805,933	\$0.147	\$ 7,895,000	\$ 10,331,047	\$ 805,933	\$ 19,031,979	\$ 19,031,979	\$ -
45%	5,032,064	\$ 1,637,689	\$0.325	\$ 7,895,000	\$ 9,470,126	\$ 1,637,689	\$ 19,002,815	\$ 19,002,815	\$ -
50%	4,574,604	\$ 2,469,446	\$0.540	\$ 7,895,000	\$ 8,609,206	\$ 2,469,446	\$ 18,973,651	\$ 18,973,651	\$ -
55%	4,117,144	\$ 3,301,202	\$0.802	\$ 7,895,000	\$ 7,748,285	\$ 3,301,202	\$ 18,944,487	\$ 18,944,487	\$ -
60%	3,659,683	\$ 4,132,959	\$1.129	\$ 7,895,000	\$ 6,887,364	\$ 4,132,959	\$ 18,915,323	\$ 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	Consumption	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

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 to FY 2013/14 Level	Fiscal Year 2018/19 Estimates									
	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 to FY 2013/14 Level	Consumption	Costs to Recover	Drought Surcharge (\$/hcf)	Estimated Rate + Drought Surcharge Revenue				Total Revenue Requirement	Excess (Shortfall)
				Fixed Revenue	Variable Revenue	Drought Surcharge Revenue	Total Revenue		
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	Consumption	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

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 to FY 2013/14 Level	Fiscal Year 2019/20 Estimates									
	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%	11,687,136	\$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 to FY 2013/14 Level	Consumption	Costs to Recover	Drought Surcharge (\$/hcf)	Estimated Rate + Drought Surcharge Revenue				Total Revenue Requirement	Excess (Shortfall)
				Fixed Revenue	Variable Revenue	Drought Surcharge Revenue	Total Revenue		
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	Consumption	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

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 to FY 2013/14 Level	Fiscal Year 2020/21 Estimates									
	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 to FY 2013/14 Level	Consumption	Costs to Recover	Drought Surcharge (\$/hcf)	Estimated Rate + Drought Surcharge Revenue				Total Revenue Requirement	Excess (Shortfall)
				Fixed Revenue	Variable Revenue	Drought Surcharge Revenue	Total Revenue		
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	Consumption	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

Financial Plan Alternative #4

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 Rates	Proposed Rates - Alternative #4				
		FY 2016/17	FY 2017/18	FY 2018/19	FY 2019/20	FY 2020/21
<i>Projected Increase in Rate Revenue per Financial Plan:</i>		5.50%	5.50%	5.50%	5.50%	5.50%
Fixed Service Charge						
Fixed Periodic Service Charge (Average Daily Use in HCF):						
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

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:

Drought Rate Schedule	Current Rates	Proposed Rates - Alternative #4				
		FY 2016/17	FY 2017/18	FY 2018/19	FY 2019/20	FY 2020/21
<i>Projected Increase in Rate Revenue per Financial Plan:</i>		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/Inertie (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.