

INDIAN WELLS VALLEY WATER DISTRICT

WATER RATE STUDY

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BARTLE WELLS ASSOCIATES

Independent Public Finance Consultants

1889 Alcatraz Avenue

Berkeley, California 94703

www.bartlewells.com

Tel: 510/653-3399

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Indian Wells Valley Water District Water Rate Study



Background and Introduction

The Indian Wells Valley Water District was initially formed on January 24th 1955 as the Ridgecrest County Water District. In 1970, the name was changed to Indian Wells Valley Water District due to expansion of the service area beyond the City of Ridgecrest, which currently encompasses approximately 38 square miles. The system is located in Kern and San Bernardino Counties, about 150 miles northeast of Los Angeles. The District operates with a staff of 29 full time employees and provides water service to nearly 12,000 metered connection. The District operates 11 production wells, seven booster stations, and ten water tanks providing 17.1 million gallons of storage.

The District's last rate study was completed in 2012 and recommended rate adjustments through February 1, 2014. However, the Board did not implement the February 1, 2014 increases and wanted to conduct another cost of service study before considering new rates.

Based on input from District staff and the Board of Directors, the objectives of the water rates are to:

- Create a balanced budget (revenues meet expenses) including funding annual depreciation (est. \$2.6 million in 2014/15)
- Ensure positive cash flow
- Avoid new debt for capital projects prior to FY 2018, when a 2012 loan and Prop 55 loan are paid off in 2018 and 2020, respectively.
- Meet debt service coverage
- Meet reserve fund targets

This report presents our findings and recommendations based on feedback and input from District staff, Board members, and the general public.

District Historical Water Use

Table 1. Historical Water Consumption			
		Total Consumption (HCF)	Percent Change
	Year		
	2008/09	3,549,511	
	2009/10	3,423,200	-3.6%
	2010/11	3,219,342	-6.0%
	2011/12	3,197,931	-0.7%
	2012/13	3,180,195	-0.6%
	2013/14	3,146,683	-1.1%

Total water use for 2013/14 was 3,146,683 hundred cubic feet (hcf), representing an 11% decrease in overall consumption since 2008/09. This decrease in consumption may be attributed to an ongoing drought in California and conservation efforts on the part of the District. The current customer base by class and meter size is shown in **Table 2**.

District Customer Base

Table 2. Customers by Meter Size (July 2013 - June 2014)					
Meter Size	Single-Family				Total
	Residential	Multi-Family	Commercial	Public	
5/8-inch	3,115	55	156	21	3,347
3/4-inch	7,265	105	162	40	7,572
1-inch	165	118	86	15	384
1 1/2-inch	0	11	36	6	53
2-inch	0	35	70	22	127
3-inch	0	2	4	2	8
4-inch	0	2	3	3	8
6-inch	0	6	1	2	9
8-inch	0	1	0	1	2
10-inch	0	0	0	0	0
Total	10,544	335	518	113	11,509
% of Total	91.6%	2.9%	4.5%	1.0%	100.0%

Source: Active Meters 2013-2014

IWVWD has approximately 11,509 active meters. About 91.6% of these meters belong to the Single-Family Residential customer class, and the most common meter size in the District is a ¾" meter, which accounts for 2/3rds of total District meters.

District meters are denominated in terms of 5/8” equivalent meters. Equivalent meters are used to denote the flow capacity of each meter size. For example, a ¾” meter is attributed 1.5 equivalent 5/8” meters because the flow capacity of a ¾” meter is 1.5 times that of a 5/8” meter. Total District 5/8” equivalent meters amount to approximately 17,883.

The number of active District meters have declined slightly over the past several years due to the population characteristics of the service area, which is economically dependent on the Naval Air Weapons Station China Lake. As a result of the volatility of the District’s population, BWA assumed a conservative 0.5% growth in customer base for the purposes of this rate study.

District Rates

Rates are currently comprised of a fixed monthly service charge (“Ready-to-Serve” charge or RTS), a fixed monthly Arsenic Charge, and Zone and Usage Charges for each hundred cubic feet (hcf) of water consumed (1 hcf = 748 gallons).

Ready-to-Serve Charge

Table 3 shows the District’s current Ready-to-Serve Charges. The RTS charge is a fixed monthly fee based on meter size, payable irrespective of consumption. This basic service charge recognizes the fact that even when a customer does not use any water, the District incurs fixed costs in connection with the ability or readiness to serve each connection. Fixed costs include staffing, customer service, debt service, system upkeep, and water quality. All customers including residential and non-residential are charged the same Ready-to-Serve Charge.

Meter Size		CURRENT			APPROVED*
		March 1, 2012	Feb 1, 2013		Feb 1, 2014
5/8 x 3/4-inch	1.0	\$19.16	\$19.93		\$21.13
3/4-inch	1.5	\$28.74	\$29.90		\$31.70
1-inch	2.5	\$47.90	\$49.83		\$52.83
1 1/2-inch	5.0	\$95.80	\$99.65		\$105.65
2-inch	8.0	\$153.28	\$159.44		\$169.04
3-inch	16.0	\$306.56	\$318.88		\$338.08
4-inch	25.0	\$479.00	\$498.25		\$528.25
6-inch	50.0	\$958.00	\$996.50		\$1,056.50
8-inch	80.0	\$1,532.80	\$1,594.40		\$1,690.40
10-inch	115.0	\$2,203.40	\$2,291.95		\$2,429.95

* Feb 1, 2014 rates were not implemented.

Arsenic Charge

Table 4 shows the District's Arsenic Charges. Arsenic Charges are charged in the same manner as Ready-to-Serve Charges; however, they are intended to recover arsenic related costs for capital facilities and O&M.

Table 4. Monthly Arsenic Charges				
Meter Size		CURRENT		APPROVED*
		Mar 1, 2012	Feb 1, 2013	Feb 1, 2014
5/8 x 3/4-inch	1.0	\$7.06	\$7.15	\$7.23
3/4-inch	1.5	\$10.59	\$10.73	\$10.85
1-inch	2.5	\$17.65	\$17.88	\$18.08
1 1/2-inch	5.0	\$35.30	\$35.75	\$36.15
2-inch	8.0	\$56.48	\$57.20	\$57.84
3-inch	16.0	\$112.96	\$114.40	\$115.68
4-inch	25.0	\$176.50	\$178.75	\$180.75
6-inch	50.0	\$353.00	\$357.50	\$361.50
8-inch	80.0	\$564.80	\$572.00	\$578.40
10-inch	115.0	\$811.90	\$822.25	\$831.45

* Feb 1, 2014 rates were not implemented.

Zone Charges

Table 5 shows the District's current Zone Charges. The District levies Zone Charges for customers located in higher elevations to pay for the costs of power to pump the water to these locations. The District has 5 zones with Zone A as the lowest charge (no charge) and Zone E as the highest charge.

Table 5. Monthly Zone Charges (per HCF)			
Zone	CURRENT		APPROVED*
	Mar 1, 2012	Feb 1, 2013	Feb 1, 2014
A	\$0.000	\$0.000	\$0.000
B	\$0.110	\$0.114	\$0.117
C	\$0.220	\$0.227	\$0.234
D	\$0.331	\$0.341	\$0.351
E	\$0.441	\$0.454	\$0.468

* Feb 1, 2014 rates were not implemented.

Usage Charges

Table 6 shows the District's Usage Charges. The usage rate structure is an inclining block rate comprised of seven tiers with the cost of each incremental unit of water increasing in each tier. The amount of water allotted in each tier varies based on meter size. The tier breakpoints for each meter size are in proportion to each meter's flow capacity.

For example, a 2-inch meter, which has 8.0 times the flow capacity of a 5/8-inch meter, has tier breakpoints that are eight times greater than those of the 5/8-inch meter. A customer with a 5/8-inch meter pays the Tier 1 rate for the first 5 hcf of water use while a customer with a 2-inch meter pays the Tier 1 rate for the first 40 hcf of monthly consumption.

Table 6. Monthly Usage Charges

		CURRENT			APPROVED*			CURRENT			APPROVED*			
		Mar 1, 2012	Feb 1, 2013	Feb 1, 2014	Mar 1, 2012	Feb 1, 2013	Feb 1, 2014	Mar 1, 2012	Feb 1, 2013	Feb 1, 2014	Mar 1, 2012	Feb 1, 2013	Feb 1, 2014	
SINGLE FAMILY RESIDENTIAL (per HCF)					NON-SINGLE FAMILY RESIDENTIAL (per HCF)									
Tier 1	0 - 5	\$0.50	\$0.50	\$0.52	3" Meter									
Tier 2	5.01 - 12	\$0.60	\$0.60	\$0.62	Tier 1	0 - 80	\$0.50	\$0.50	\$0.52	Tier 2	80.01 - 160	\$0.60	\$0.60	\$0.62
Tier 3	12.01 - 24	\$1.00	\$1.00	\$1.03	Tier 3	160.01 - 240	\$1.00	\$1.00	\$1.03	Tier 3	160.01 - 240	\$1.00	\$1.00	\$1.03
Tier 4	24.01 - 31	\$1.75	\$1.75	\$1.80	Tier 4	240.01 - 320	\$1.75	\$1.75	\$1.80	Tier 4	240.01 - 320	\$1.75	\$1.75	\$1.80
Tier 5	31.01 - 38	\$2.25	\$2.25	\$2.32	Tier 5	320.01 - 400	\$2.25	\$2.25	\$2.32	Tier 5	320.01 - 400	\$2.25	\$2.25	\$2.32
Tier 6	38.01 - 45	\$2.75	\$2.75	\$2.83	Tier 6	400.01 - 480	\$2.75	\$2.75	\$2.83	Tier 6	400.01 - 480	\$2.75	\$2.75	\$2.83
Tier 7	45.01 & over	\$4.13	\$4.13	\$4.25	Tier 7	480.01 & over	\$4.13	\$4.13	\$4.25	Tier 7	480.01 & over	\$4.13	\$4.13	\$4.25
NON-SINGLE FAMILY RESIDENTIAL (per HCF)					4" Meter									
5/8" Meter					Tier 1	0 - 125	\$0.50	\$0.50	\$0.52	Tier 1	0 - 125	\$0.50	\$0.50	\$0.52
Tier 1	0 - 5	\$0.50	\$0.50	\$0.52	Tier 2	125.01 - 250	\$0.60	\$0.60	\$0.62	Tier 2	125.01 - 250	\$0.60	\$0.60	\$0.62
Tier 2	5.01 - 10	\$0.60	\$0.60	\$0.62	Tier 3	250.01 - 375	\$1.00	\$1.00	\$1.03	Tier 3	250.01 - 375	\$1.00	\$1.00	\$1.03
Tier 3	10.01 - 15	\$1.00	\$1.00	\$1.03	Tier 4	375.01 - 500	\$1.75	\$1.75	\$1.80	Tier 4	375.01 - 500	\$1.75	\$1.75	\$1.80
Tier 4	15.01 - 20	\$1.75	\$1.75	\$1.80	Tier 5	500.01 - 625	\$2.25	\$2.25	\$2.32	Tier 5	500.01 - 625	\$2.25	\$2.25	\$2.32
Tier 5	20.01 - 25	\$2.25	\$2.25	\$2.32	Tier 6	625.01 - 750	\$2.75	\$2.75	\$2.83	Tier 6	625.01 - 750	\$2.75	\$2.75	\$2.83
Tier 6	25.01 - 30	\$2.75	\$2.75	\$2.83	Tier 7	750.01 & over	\$4.13	\$4.13	\$4.25	Tier 7	750.01 & over	\$4.13	\$4.13	\$4.25
Tier 7	30.01 & over	\$4.13	\$4.13	\$4.25	6" Meter									
3/4" Meter					Tier 1	0 - 250	\$0.50	\$0.50	\$0.52	Tier 1	0 - 250	\$0.50	\$0.50	\$0.52
Tier 1	0 - 8	\$0.50	\$0.50	\$0.52	Tier 2	250.01 - 500	\$0.60	\$0.60	\$0.62	Tier 2	250.01 - 500	\$0.60	\$0.60	\$0.62
Tier 2	8.01 - 15	\$0.60	\$0.60	\$0.62	Tier 3	500.01 - 750	\$1.00	\$1.00	\$1.03	Tier 3	500.01 - 750	\$1.00	\$1.00	\$1.03
Tier 3	15.01 - 23	\$1.00	\$1.00	\$1.03	Tier 4	750.01 - 1000	\$1.75	\$1.75	\$1.80	Tier 4	750.01 - 1000	\$1.75	\$1.75	\$1.80
Tier 4	23.01 - 30	\$1.75	\$1.75	\$1.80	Tier 5	1000.01 - 1250	\$2.25	\$2.25	\$2.32	Tier 5	1000.01 - 1250	\$2.25	\$2.25	\$2.32
Tier 5	30.01 - 38	\$2.25	\$2.25	\$2.32	Tier 6	1250.01 - 1500	\$2.75	\$2.75	\$2.83	Tier 6	1250.01 - 1500	\$2.75	\$2.75	\$2.83
Tier 6	38.01.01 - 45	\$2.75	\$2.75	\$2.83	Tier 7	1500.01 & over	\$4.13	\$4.13	\$4.25	Tier 7	1500.01 & over	\$4.13	\$4.13	\$4.25
Tier 7	45.01 & over	\$4.13	\$4.13	\$4.25	8" Meter									
1" Meter					Tier 1	0 - 400	\$0.50	\$0.50	\$0.52	Tier 1	0 - 400	\$0.50	\$0.50	\$0.52
Tier 1	0 - 13	\$0.50	\$0.50	\$0.52	Tier 2	400.01 - 800	\$0.60	\$0.60	\$0.62	Tier 2	400.01 - 800	\$0.60	\$0.60	\$0.62
Tier 2	13.01 - 25	\$0.60	\$0.60	\$0.62	Tier 3	800.01 - 1200	\$1.00	\$1.00	\$1.03	Tier 3	800.01 - 1200	\$1.00	\$1.00	\$1.03
Tier 3	25.01 - 38	\$1.00	\$1.00	\$1.03	Tier 4	1200.01 - 1600	\$1.75	\$1.75	\$1.80	Tier 4	1200.01 - 1600	\$1.75	\$1.75	\$1.80
Tier 4	38.01 - 50	\$1.75	\$1.75	\$1.80	Tier 5	1600.01 - 2000	\$2.25	\$2.25	\$2.32	Tier 5	1600.01 - 2000	\$2.25	\$2.25	\$2.32
Tier 5	50.01 - 63	\$2.25	\$2.25	\$2.32	Tier 6	2000.01 - 2400	\$2.75	\$2.75	\$2.83	Tier 6	2000.01 - 2400	\$2.75	\$2.75	\$2.83
Tier 6	63.01 - 75	\$2.75	\$2.75	\$2.83	Tier 7	2400.01 & over	\$4.13	\$4.13	\$4.25	Tier 7	2400.01 & over	\$4.13	\$4.13	\$4.25
Tier 7	75.01 & over	\$4.13	\$4.13	\$4.25	10" Meter									
1-1/2" Meter					Tier 1	0 - 575	\$0.50	\$0.50	\$0.52	Tier 1	0 - 575	\$0.50	\$0.50	\$0.52
Tier 1	0 - 25	\$0.50	\$0.50	\$0.52	Tier 2	575.01 - 1150	\$0.60	\$0.60	\$0.62	Tier 2	575.01 - 1150	\$0.60	\$0.60	\$0.62
Tier 2	25.01 - 50	\$0.60	\$0.60	\$0.62	Tier 3	1150.01 - 1725	\$1.00	\$1.00	\$1.03	Tier 3	1150.01 - 1725	\$1.00	\$1.00	\$1.03
Tier 3	50.01 - 75	\$1.00	\$1.00	\$1.03	Tier 4	1725.01 - 2300	\$1.75	\$1.75	\$1.80	Tier 4	1725.01 - 2300	\$1.75	\$1.75	\$1.80
Tier 4	75.01 - 100	\$1.75	\$1.75	\$1.80	Tier 5	2300.01 - 2875	\$2.25	\$2.25	\$2.32	Tier 5	2300.01 - 2875	\$2.25	\$2.25	\$2.32
Tier 5	100.01 - 125	\$2.25	\$2.25	\$2.32	Tier 6	2875.01 - 3450	\$2.75	\$2.75	\$2.83	Tier 6	2875.01 - 3450	\$2.75	\$2.75	\$2.83
Tier 6	125.01 - 150	\$2.75	\$2.75	\$2.83	Tier 7	3450.01 & over	\$4.13	\$4.13	\$4.25	Tier 7	3450.01 & over	\$4.13	\$4.13	\$4.25
Tier 7	150.01 & over	\$4.13	\$4.13	\$4.25	2" Meter									
2" Meter					Tier 1	0 - 40	\$0.50	\$0.50	\$0.52	Tier 1	0 - 40	\$0.50	\$0.50	\$0.52
Tier 1	0 - 40	\$0.50	\$0.50	\$0.52	Tier 2	40.01 - 80	\$0.60	\$0.60	\$0.62	Tier 2	40.01 - 80	\$0.60	\$0.60	\$0.62
Tier 2	40.01 - 80	\$0.60	\$0.60	\$0.62	Tier 3	80.01 - 120	\$1.00	\$1.00	\$1.03	Tier 3	80.01 - 120	\$1.00	\$1.00	\$1.03
Tier 3	80.01 - 120	\$1.00	\$1.00	\$1.03	Tier 4	120.01 - 160	\$1.75	\$1.75	\$1.80	Tier 4	120.01 - 160	\$1.75	\$1.75	\$1.80
Tier 4	120.01 - 160	\$1.75	\$1.75	\$1.80	Tier 5	160.01 - 200	\$2.25	\$2.25	\$2.32	Tier 5	160.01 - 200	\$2.25	\$2.25	\$2.32
Tier 5	160.01 - 200	\$2.25	\$2.25	\$2.32	Tier 6	200.01 - 240	\$2.75	\$2.75	\$2.83	Tier 6	200.01 - 240	\$2.75	\$2.75	\$2.83
Tier 6	200.01 - 240	\$2.75	\$2.75	\$2.83	Tier 7	240.01 & over	\$4.13	\$4.13	\$4.25	Tier 7	240.01 & over	\$4.13	\$4.13	\$4.25
Tier 7	240.01 & over	\$4.13	\$4.13	\$4.25										

* Feb 1, 2014 rates were not implemented.

District Water Consumption FY 2014

In **Table 7**, BWA examined the District's FY 2014 billing data through a consumption block analysis and determined the amount of water consumed in each tier for the residential class and commercial customer classes by meter size.

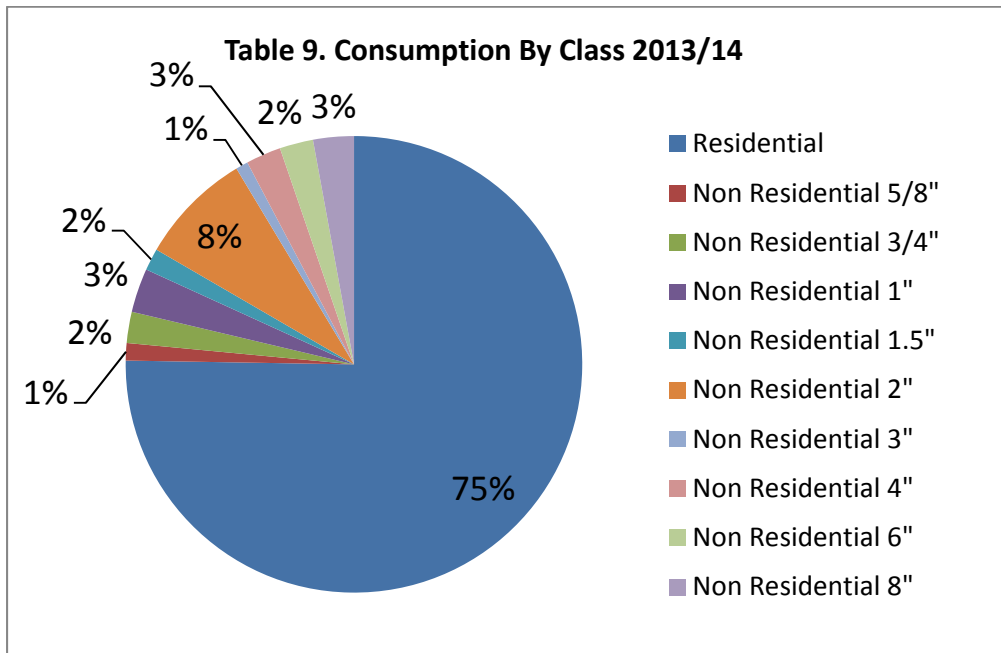
Table 7. 2013/14 Water Consumption (HCF)							
Customer Category	Monthly Breakpoints (HCF)	2013/14		Customer Category	Monthly Breakpoints (HCF)	2013/14	
		HCF	Percent			HCF	Percent
RESIDENTIAL				NON-RESIDENTIAL (Continued)			
Residential				Non Residential 2"			
Tier 1 Usage	0 to 5	573,472	25%	Tier 1 Usage	0 to 40	51,231	21%
Tier 2 Usage	5 to 12	586,417	26%	Tier 2 Usage	40 to 80	41,703	17%
Tier 3 Usage	12 to 24	569,129	25%	Tier 3 Usage	80 to 120	32,767	13%
Tier 4 Usage	24 to 31	187,617	8%	Tier 4 Usage	120 to 160	25,550	10%
Tier 5 Usage	31 to 38	123,363	5%	Tier 5 Usage	160 to 200	20,289	8%
Tier 6 Usage	38 to 45	80,816	4%	Tier 6 Usage	200 to 240	15,880	6%
Tier 7 Usage	45 and over	<u>171,105</u>	<u>7%</u>	Tier 7 Usage	240 and Over	<u>56,937</u>	<u>23%</u>
Subtotal		2,291,919	100%	Subtotal		244,357	100%
NON-RESIDENTIAL				Non Residential 3"			
Non Residential 5/8"				Tier 1 Usage			
Tier 1 Usage	0 to 5	10,149	27%	Tier 1 Usage	0 to 80	7,032	26%
Tier 2 Usage	5 to 10	6,824	18%	Tier 2 Usage	80 to 160	4,681	18%
Tier 3 Usage	10 to 15	5,095	14%	Tier 3 Usage	160 to 240	3,515	13%
Tier 4 Usage	15 to 20	3,741	10%	Tier 4 Usage	240 to 320	2,803	11%
Tier 5 Usage	20 to 25	2,796	7%	Tier 5 Usage	320 to 400	2,249	8%
Tier 6 Usage	25 to 30	1,942	5%	Tier 6 Usage	400 to 480	1,773	7%
Tier 7 Usage	30 and over	<u>6,859</u>	<u>18%</u>	Tier 7 Usage	480 and over	<u>4,580</u>	<u>17%</u>
Subtotal		37,406	100%	Subtotal		26,633	100%
Non Residential 3/4"				Non Residential 4"			
Tier 1 Usage	0 to 8	21,071	31%	Tier 1 Usage	0 to 125	11,625	15%
Tier 2 Usage	8 to 15	11,721	18%	Tier 2 Usage	125 to 250	10,832	14%
Tier 3 Usage	15 to 23	8,687	13%	Tier 3 Usage	250 to 375	9,161	12%
Tier 4 Usage	23 to 30	5,426	8%	Tier 4 Usage	375 to 500	7,334	10%
Tier 5 Usage	30 to 38	4,527	7%	Tier 5 Usage	500 to 625	6,507	9%
Tier 6 Usage	38 to 45	2,843	4%	Tier 6 Usage	625 to 750	5,482	7%
Tier 7 Usage	45 and over	<u>12,676</u>	<u>19%</u>	Tier 7 Usage	750 and over	<u>24,606</u>	<u>33%</u>
Subtotal		66,951	100%	Subtotal		75,547	100%
Non Residential 1"				Non Residential 6"			
Tier 1 Usage	0 to 13	27,928	29%	Tier 1 Usage	0 to 250	24,342	34%
Tier 2 Usage	13 to 25	17,976	19%	Tier 2 Usage	250 to 500	18,982	26%
Tier 3 Usage	25 to 38	12,633	13%	Tier 3 Usage	500 to 750	12,203	17%
Tier 4 Usage	38 to 50	7,835	8%	Tier 4 Usage	750 to 1000	8,075	11%
Tier 5 Usage	50 to 63	6,131	6%	Tier 5 Usage	1000 to 1250	4,718	7%
Tier 6 Usage	63 to 75	4,107	4%	Tier 6 Usage	1250 to 1500	2,527	4%
Tier 7 Usage	75 and over	<u>18,366</u>	<u>19%</u>	Tier 7 Usage	1500 and over	<u>1,197</u>	<u>2%</u>
Subtotal		94,976	100%	Subtotal		72,044	100%
Non Residential 1.5"				Non Residential 8"			
Tier 1 Usage	0 to 25	12,578	27%	Tier 1 Usage	0 to 400	9,600	11%
Tier 2 Usage	25 to 50	9,484	20%	Tier 2 Usage	400 to 800	8,658	10%
Tier 3 Usage	50 to 75	6,230	13%	Tier 3 Usage	800 to 1200	5,401	6%
Tier 4 Usage	75 to 100	4,298	9%	Tier 4 Usage	1200 to 1600	4,800	5%
Tier 5 Usage	100 to 125	3,077	6%	Tier 5 Usage	1600 to 2000	4,495	5%
Tier 6 Usage	125 to 150	2,053	4%	Tier 6 Usage	2000 to 2400	3,715	4%
Tier 7 Usage	150 and over	<u>9,704</u>	<u>20%</u>	Tier 7 Usage	2400 and over	<u>51,126</u>	<u>58%</u>
Subtotal		47,424	100%	Subtotal		87,795	100%
						Subtotal Non-Residential	753,133

BWA's consumption block reveals that approximately 75% of residential consumption falls within Tiers 1 – 3 (below 24 hcf per month). For commercial customers, the majority of usage falls within Tiers 1 – 3 and Tier 7. Notably, 8" customers have 58% percent of total usage within Tier 7.

Total District consumption by tier is show in **Table 8**.

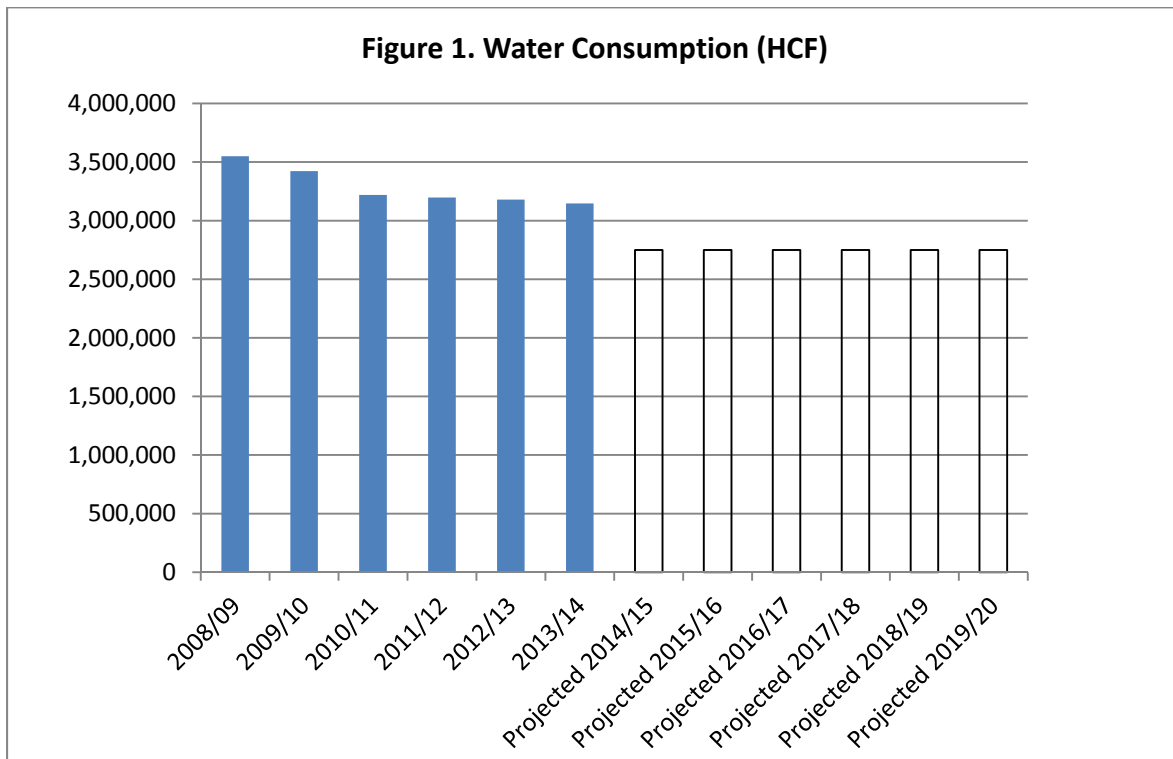
Table 8. Total District Usage 2013/14		
	Total Usage	% of Total
Tier 1	749,028	24.60%
Tier 2	717,278	23.56%
Tier 3	664,821	21.83%
Tier 4	257,479	8.46%
Tier 5	178,152	5.85%
Tier 6	121,138	3.98%
Tier 7	<u>357,156</u>	<u>11.73%</u>
	3,045,052	100.00%

Table 9 shows the breakdown of water use by customer class. Residential customers consume 75% of total consumption. 2" Commercial meters consume the second most amount of water at 8% of total consumption.



Projected Water Use

Decreased water sales have resulted in lower revenue for the District. Based on District input, BWA assumed a one-time decrease in water consumption of 10% in 2014/15, with water use remaining level thereafter. BWA water consumption projections are shown in **Figure 1**.



Impact of Reduced Consumption on Water Sales

BWA examined the impact on revenues from a 10% reduction in water consumption by reducing all monthly billed consumption in FY 2013/14 by 10%. The total impact is shown in **Table 10**. BWA estimates that a 10% reduction amounting to approximately 296,000 hcf annually would result in a 16% decrease in revenue of about \$675,000. The District would see a greater percentage decrease in sales for a given decrease in usage due to rapidly inclining charges by tier. **Table 11** shows the consumption block used to calculate the lost water sales revenue.

2013/14 Consumption (hcf)	3,045,052
2013/14 Water Sales (\$)	\$4,129,316
10% Reduced Consumption (hcf)	2,749,023
Lost Usage (hcf)	-296,029
Total Sales Under 10% Reduction	\$3,453,674
Lost Revenue From Cutback	-\$675,642

Table 11. Water Sales Forecast (10% Reduced Usage on All 2013/14 Bills)

Customer Category	Monthly Breakpoints (HCF)	2013/14		Customer Category	Monthly Breakpoints (HCF)	2013/14	
		HCF	Revenue			HCF	Revenue
RESIDENTIAL				NON-RESIDENTIAL (Continued)			
Residential				Non Residential 2"			
Tier 1 Usage	0 to 5	573,472	\$286,736	Tier 1 Usage	0 to 40	50,737	\$25,369
Tier 2 Usage	5 to 12	551,322	330,793	Tier 2 Usage	40 to 80	40,131	24,079
Tier 3 Usage	12 to 24	510,787	510,787	Tier 3 Usage	80 to 120	30,573	30,573
Tier 4 Usage	24 to 31	156,987	274,727	Tier 4 Usage	120 to 160	23,411	40,969
Tier 5 Usage	31 to 38	97,841	220,142	Tier 5 Usage	160 to 200	17,971	40,435
Tier 6 Usage	38 to 45	61,690	169,648	Tier 6 Usage	200 to 240	13,503	37,133
Tier 7 Usage	45 and over	<u>118,345</u>	<u>488,765</u>	Tier 7 Usage	240 and Over	<u>43,690</u>	<u>180,440</u>
Subtotal		2,070,444	\$2,281,598	Subtotal		220,016	\$378,997
NON-RESIDENTIAL				Non Residential 3"			
Non Residential 5/8"				Tier 1 Usage 0 to 80 6,893 \$3,447			
Tier 1 Usage	0 to 5	10,149	\$5,075	Tier 2 Usage	80 to 160	4,427	2,656
Tier 2 Usage	5 to 10	6,395	3,837	Tier 3 Usage	160 to 240	3,322	3,322
Tier 3 Usage	10 to 15	4,748	4,748	Tier 4 Usage	240 to 320	2,546	4,456
Tier 4 Usage	15 to 20	3,333	5,833	Tier 5 Usage	320 to 400	2,020	4,545
Tier 5 Usage	20 to 25	2,378	5,351	Tier 6 Usage	400 to 480	1,464	4,026
Tier 6 Usage	25 to 30	1,554	4,274	Tier 7 Usage	480 and over	<u>3,304</u>	<u>13,646</u>
Tier 7 Usage	30 and over	<u>5,330</u>	<u>22,013</u>	Subtotal		23,976	\$36,097
Subtotal		33,887	\$51,129	Non Residential 4"			
Non Residential 3/4"				Tier 1 Usage 0 to 125 11,562 \$5,781			
Tier 1 Usage	0 to 8	20,676	\$10,338	Tier 2 Usage	125 to 250	10,678	6,407
Tier 2 Usage	8 to 15	10,981	6,589	Tier 3 Usage	250 to 375	8,626	8,626
Tier 3 Usage	15 to 23	7,867	7,867	Tier 4 Usage	375 to 500	6,864	12,012
Tier 4 Usage	23 to 30	4,765	8,339	Tier 5 Usage	500 to 625	6,060	13,635
Tier 5 Usage	30 to 38	3,838	8,636	Tier 6 Usage	625 to 750	4,881	13,423
Tier 6 Usage	38 to 45	2,470	6,793	Tier 7 Usage	750 and over	<u>19,324</u>	<u>79,808</u>
Tier 7 Usage	45 and over	<u>9,913</u>	<u>40,941</u>	Subtotal		67,995	\$139,692
Subtotal		60,510	\$89,501	Non Residential 6"			
Non Residential 1"				Tier 1 Usage 0 to 250 24,156 \$12,078			
Tier 1 Usage	0 to 13	27,512	\$13,756	Tier 2 Usage	250 to 500	17,576	10,546
Tier 2 Usage	13 to 25	16,730	10,038	Tier 3 Usage	500 to 750	11,169	11,169
Tier 3 Usage	25 to 38	11,308	11,308	Tier 4 Usage	750 to 1000	6,530	11,428
Tier 4 Usage	38 to 50	6,866	12,016	Tier 5 Usage	1000 to 1250	3,650	8,213
Tier 5 Usage	50 to 63	5,275	11,869	Tier 6 Usage	1250 to 1500	1,404	3,861
Tier 6 Usage	63 to 75	3,251	8,940	Tier 7 Usage	1500 and over	<u>360</u>	<u>1,487</u>
Tier 7 Usage	75 and over	<u>14,669</u>	<u>60,583</u>	Subtotal		64,845	\$58,780
Subtotal		85,611	\$128,509	Non Residential 8"			
Non Residential 1.5"				Tier 1 Usage 0 to 400 9,600 \$4,800			
Tier 1 Usage	0 to 25	12,429	\$6,215	Tier 2 Usage	400 to 800	8,211	4,927
Tier 2 Usage	25 to 50	8,911	5,347	Tier 3 Usage	800 to 1200	4,921	4,921
Tier 3 Usage	50 to 75	5,573	5,573	Tier 4 Usage	1200 to 1600	4,800	8,400
Tier 4 Usage	75 to 100	3,829	6,701	Tier 5 Usage	1600 to 2000	4,030	9,068
Tier 5 Usage	100 to 125	2,507	5,641	Tier 6 Usage	2000 to 2400	3,600	9,900
Tier 6 Usage	125 to 150	1,714	4,714	Tier 7 Usage	2400 and over	<u>43,855</u>	<u>181,121</u>
Tier 7 Usage	150 and over	<u>7,759</u>	<u>32,045</u>	Subtotal		79,017	\$223,136
Subtotal		42,722	\$66,234	Subtotal Non-Residential			
						678,579	\$1,172,076

Rate Structure Recommendations

In consultation with District staff and the Board of Directors, BWA recommends the following changes to the Districts rate structure to both simplify the rate structure and improve rate equity:

- 1. Combine 3/4" and 5/8" Customers:** Currently, 3/4-inch meters are the standard size meter for the District's smallest sized water service for new service installations. However, the District still has 5/8-inch meters in service. BWA recommends that the District establish the 3/4-inch meter as the standard residential meter and normalize the meter charges (which include Ready-to-Serve and Arsenic Charges) for 5/8-inch meters over the next three years so they equal the charges for 3/4-inch meters. The phase-in period is intended to minimize the rate impact on 5/8-inch customers.
- 2. Simplify the Tier Structure:** To simplify the District's billing system, BWA recommends that the District combine Tiers 2 & 3 and Tiers 4, 5, & 6 to create a four-tier structure. The four tier structure is expected to provide the same conservation incentive as the current seven tier structure, while simplifying the rate structure.
- 3. Increase the Tier 1 Allotment:** BWA recommends increasing the Tier 1 allotment for residential customers from 5 hcf to 7 hcf per month. This new allotment will give residential customers more water for indoor use. The addition of 2 hcf per month for residential customers will account for the additional monthly consumption of an evaporative cooler.

The new consumption block analysis under the proposed 4 Tiers is shown in **Table 12**.

Table 12. 0-7 HCF Proposed Residential Tier 1 Water Consumption							
Customer Category	Monthly Breakpoints (HCF)	2013/14		Customer Category	Monthly Breakpoints (HCF)	2013/14	
		HCF	Percent			HCF	Percent
RESIDENTIAL				NON-RESIDENTIAL (Continued)			
Residential				Non Residential 2"			
Tier 1 Usage	0 to 7	767,427	33%	Tier 1 Usage	0 to 37	47,690	20%
Tier 2 Usage	7 to 24	961,591	42%	Tier 2 Usage	37 to 128	83,600	34%
Tier 3 Usage	24 to 45	391,796	17%	Tier 3 Usage	128 to 240	56,130	23%
Tier 4 Usage	45 and over	<u>171,105</u>	<u>7%</u>	Tier 4 Usage	240 and over	<u>56,937</u>	<u>23%</u>
Subtotal		2,291,919	100%	Subtotal		244,357	100%
NON-RESIDENTIAL				Non Residential 3"			
Non Residential 5/8"				Tier 1 Usage 0 to 75 6,670 25%			
Tier 1 Usage	0 to 7	13,157	35%	Tier 2 Usage	75 to 256	9,182	34%
Tier 2 Usage	7 to 24	14,956	40%	Tier 3 Usage	256 to 480	6,201	23%
Tier 3 Usage	24 to 45	5,581	15%	Tier 4 Usage	480 and over	<u>4,580</u>	<u>17%</u>
Tier 4 Usage	45 and over	<u>3,712</u>	<u>10%</u>	Subtotal		26,633	100%
Subtotal		37,406	100%	Non Residential 4"			
Non Residential 3/4"				Tier 1 Usage 0 to 117 10,921 14%			
Tier 1 Usage	0 to 7	18,959	28%	Tier 2 Usage	117 to 400	22,325	30%
Tier 2 Usage	7 to 24	23,396	35%	Tier 3 Usage	400 to 750	17,695	23%
Tier 3 Usage	24 to 45	11,920	18%	Tier 4 Usage	750 and over	<u>24,606</u>	<u>33%</u>
Tier 4 Usage	45 and over	<u>12,676</u>	<u>19%</u>	Subtotal		75,547	100%
Subtotal		66,951	100%	Non Residential 6"			
Non Residential 1"				Tier 1 Usage 0 to 233 22,804 32%			
Tier 1 Usage	0 to 12	26,100	27%	Tier 2 Usage	233 to 800	34,718	48%
Tier 2 Usage	12 to 40	33,940	36%	Tier 3 Usage	800 to 1500	13,325	18%
Tier 3 Usage	40 to 75	16,570	17%	Tier 4 Usage	1500 and over	<u>1,197</u>	<u>2%</u>
Tier 4 Usage	75 and over	<u>18,366</u>	<u>19%</u>	Subtotal		72,044	100%
Subtotal		94,976	100%	Non Residential 8"			
Non Residential 1.5"				Tier 1 Usage 0 to 373 8,952 10%			
Tier 1 Usage	0 to 23	11,681	25%	Tier 2 Usage	373 to 1280	15,667	18%
Tier 2 Usage	23 to 80	17,575	37%	Tier 3 Usage	1280 to 2400	12,050	14%
Tier 3 Usage	80 to 150	8,464	18%	Tier 4 Usage	2400 and over	<u>51,126</u>	<u>58%</u>
Tier 4 Usage	150 and over	<u>9,704</u>	<u>20%</u>	Subtotal		87,795	100%
Subtotal		47,424	100%	Subtotal Non-Residential 753,133			
TOTAL CONSUMPTION		3,045,052					

District Funding Needs

The District is currently in good financial standing with over \$9.67 million in unrestricted cash reserves on June 30, 2014. Target reserves set by Board Resolution No. 13-08 stand at \$15,860,586. The reserve target includes an estimated \$10,000,000 required for future source of supply, which the District intends to build up to at a rate of 5% of the Emergency Reserve Target plus \$120,000 per year.

Table 13. Fund Balances		
Fund	Actual Unrestricted Reserves (as of June 30, 2014)	Target Reserves FY 2015
Emergency Reserve	\$5,728,353	\$3,120,500
Capital Improvement Reserve	\$2,008,286	\$2,000,000
Vehicle Reserve	\$289,537	\$350,000
Miscellaneous Capital Passthrough Reserve	\$799,672	\$0
Computer Reserve	\$84,447	\$100,000
Retiree Medical Benefit Reserve	\$288,886	\$288,886
Future Source of Supply Reserve	\$321,100	\$10,000,000
Petty Cash	\$1,200	\$1,200
Mission Bank	\$132,570	\$0
Bank of America Payroll Tax Passthrough	\$16,294	\$0
Cash Balance	\$9,670,345	\$15,860,586

The District is committed to ensuring the sustainability of the water system by budgeting capital improvement project expenditures equal to or greater than annual depreciation expense, which is estimated at \$2.6 million for 2014/15.

The District identified several key funding requirements which play a significant role in determining rate increases:

- 1. Reduced Water Sales:** Water sales have been decreasing which has resulted in less revenue than projected. Overall consumption is anticipated to decrease 10% for 2014/15 based on input from District staff.
- 2. Capital Funding:** The District's 10-Year (FY 2015 through 2024) CIP includes over \$25.9 million in infrastructure needs. \$21.8 million in projects are planned for the first 5 years. The largest capital expenditures are planned for 2017/18 with \$10.7 million in projects for Well No. 35, East Bowman A-Zone Reservoir, Transmission Extension Line from Bowman Rd to A-Zone Reservoir, Radio Read Meters, and a Replacement Well. The District's capital improvement program is shown in **Appendix A**.
- 3. Ongoing Cost Inflation:** Draft projections assume 3% annual cost inflation; meaning 3% annual rate adjustments are needed just to keep revenues in line with operating expenses

4. **Debt Service:** District annual debt service stands at approximately \$2,134,530.42, including principal and interest payments. Outstanding debt issues include a 2012 loan, a Prop 55 Loan, and 2009 Certificates of Participation.

Debt Repayment Dates:

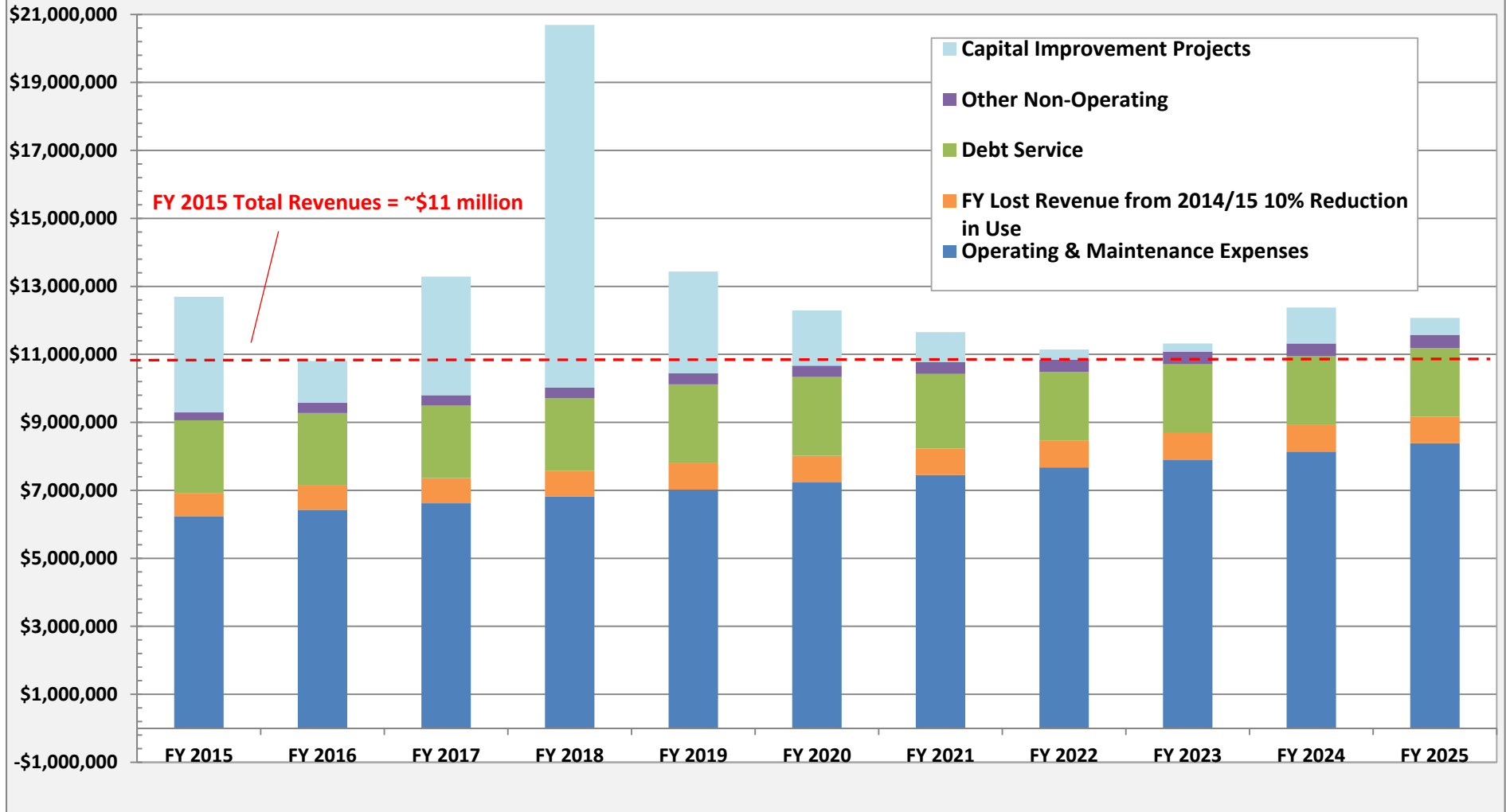
1. 2012 Loan: 6/1/2018
2. Prop 55 Loan: 3/31/2020
3. 2009 COP: 4/1/2040

Existing annual debt service will drop to \$1,582,731.48 in FY 2019 and \$1,291,962.50 in FY 2022 as debt is paid off.

5. **Fund Reserves:** The District's total fund reserve target is about \$15.8 million, including a \$10 million target for Future Source of Supply. The annual target is comprised of an Emergency Reserve equal to 6 months of O&M costs, \$2 million in Capital Improvement Reserves, \$350,000 in Vehicle Reserves, \$100,000 in Computer Reserves, \$288,886 in Retiree Medical Benefit Reserves, and \$1,200 in Petty Cash. The Future Source of Supply Reserve is increased by \$120,000 plus 5% of the Emergency Reserve Target each year.

Figure 2 shows Indian Wells Valley Water District projected expenses for the next 10 years.

Figure 2: Indian Wells Valley Water District Projected Annual Expenses



Legal Requirements & Rate Methodology

Constitutional Rate Requirements

The California Constitution includes two key articles that directly govern or impact IWWVD water rates: Article 10 and Article 13D. The water rates developed in this study were designed to comply with both of these constitutional mandates as well as various provisions of the California Water Code and Government Code that support and add further guidance for implementing these constitutional requirements. In accordance with the constitutional provisions, the proposed rates are designed to a) recover the District's cost of providing service, b) recover revenues in proportion to the cost for serving each customer, and c) promote conservation and discourage waste.

Article 10, Section 2

Article 10, Section 2 of the California Constitution was established by voter-approval in 1976 and requires public agencies to maximize the beneficial use of water, prevent waste, and encourage conservation. Section 2 states that:

It is hereby declared that because of the conditions prevailing in this State the general welfare requires that the water resources of the State be put to beneficial use to the fullest extent of which they are capable, and that the waste or unreasonable use or unreasonable method of use of water be prevented, and that the conservation of such waters is to be exercised with a view to the reasonable and beneficial use thereof in the interest of the people and for the public welfare.

Article 13D, Section 6

Proposition 218 was adopted by California voters in 1996 and added Articles 13C and 13D to the California Constitution. Article 13D, Section 6 governs property-related charges, which the California Supreme Court subsequently ruled includes ongoing utility service charges such as water, sewer, and garbage rates. Article 13D, Section 6 establishes a) procedural requirements for imposing or increasing property-related charges, and b) substantive requirements for those charges. Article 13D also requires voter approval for new or increased property-related charges but exempts from this voting requirement rates for water, sewer, and garbage service.

The substantive requirements of Article 13D, Section 6 require IWWVD water rates to meet the following conditions:

- 1) Revenues derived from the fee or charge shall not exceed the funds required to provide the property related service.

- 2) Revenues derived from the fee or charge shall not be used for any purpose other than that for which the fee or charge was imposed.
- 3) The amount of a fee or charge imposed upon any parcel or person as an incident of property ownership shall not exceed the proportional cost of the service attributable to the parcel.
- 4) No fee or charge may be imposed for a service unless that service is actually used by, or immediately available to, the owner of the property in question.
- 5) No fee or charge may be imposed for general governmental services, such as police or fire services, where the service is available to the public at large in substantially the same manner as it is to property owners.

A subsequent appellate court decision in 2011 further clarified that agencies must demonstrate, satisfactory to a court's independent judgment, that property-related fees and charges meet the proportionality requirement of Section 6.(3). This rate study provides that justification. The water rates derived in this report are based on a cost-of-service methodology that fairly apportions costs to all customers.

Rate-Setting Methodology

The rates developed in this report use a straightforward methodology to establish an equitable system of fixed and variable charges that recover the cost of providing service and fairly apportion costs to each rate component. The rates were developed using generally accepted cost-based principles and methodologies for establishing water rates, charges, and fees contained and discussed in the *AWWA's M1 Manual, Principles of Water Rates, Fees, and Charges, Sixth Edition, 2012*.

In developing water rates, it is important to know that there is no "one-size-fits-all" approach for establishing cost-based water rates, "the (M1 Manual) is aimed at outlining the basic elements involved in water rates and suggesting alternative rules of procedure for formulating rates, thus permitting the exercise of judgment and preference to meet local conditions and requirements." ¹

¹ AWWA Manual M1 Manual, Principles of Water Rates, Fees, and Charges, Sixth Edition, 2012, page 5.

Cost Allocation

In **Table 14**, BWA reviewed the District’s cost structure and allocated costs to each of the District’s charges. District costs are based on projected expenses in FY 2015.

Operating & Maintenance Expenses	FY 2015	RTS Charges	Arsenic Charges	Usage Charges	Zone Charges	Fire Prevention	Bulk Rate	Construction Water	Non-Operating Revenue	Total
Pumping Plant	1,454,800	40% \$574,646	0% \$0	52% \$756,496	8% \$120,021	0% \$0	0.25% \$3,637	0.00% \$0	0% \$0	100%
Arsenic Plant	574,900	0% 0	100% \$574,900	0% \$0	0% \$0	0% \$0	0.00% \$0	0.00% \$0	0% \$0	100%
Transmission & Distribution	1,350,400	47% 634,688	0% \$0	48% \$648,192	0% \$0	1% \$18,906	0.20% \$2,701	0.15% \$2,026	3% \$43,888	100%
Engineering	309,000	46% 141,368	0% \$0	48% \$148,320	0% \$0	1% \$4,326	0.25% \$773	0.10% \$309	5% \$13,905	100%
Customer Service	387,100	40% 154,840	0% \$0	27% \$103,549	0% \$0	3% \$9,678	0.25% \$968	0.35% \$1,355	30% \$116,711	100%
Field Service	427,400	60% 256,440	0% \$0	30% \$128,220	0% \$0	1% \$4,274	0.25% \$1,069	0.35% \$1,496	8% \$35,902	100%
Admin, Accounting & General	1,643,200	60% 985,920	0% \$0	35% \$575,120	0% \$0	1% \$16,432	0.25% \$4,108	0.35% \$5,751	3% \$55,869	100%
Legislative	94,200	60% 56,520	0% \$0	30% \$28,260	0% \$0	1% \$942	0.25% \$236	0.35% \$330	8% \$7,913	100%
Total Operating & Maintenance Expenses	\$6,241,000	\$2,804,422	\$574,900	\$2,388,157	\$120,021	\$54,557	\$13,490	\$11,266	\$274,187	
Non-Operating Expenses										
Lost Revenue from 10% Conservation	\$676,000	0% \$0	0% \$0	100% \$676,000	0% \$0	0% \$0	0.00% \$0	0.00% \$0	0% \$0	100%
Issuance & Administrative Costs	17,000	35% \$5,950	0% \$0	5% \$850	0% \$0	0% \$0	0.00% \$0	0.00% \$0	60% \$10,200	100%
Existing Debt Service (Principal & Interest)	2,135,000	40% \$856,135	45% \$958,615	4% \$85,400	0% \$0	1% \$16,013	0.00% \$0	0.00% \$0	10% \$218,838	100%
Miscellaneous Non-Operating Expenses	132,000	40% \$52,800	0% \$0	0% \$0	0% \$0	1% \$1,320	0.00% \$0	0.00% \$0	59% \$77,880	100%
Conservation	72,000	0% \$0	0% \$0	100% \$72,000	0% \$0	0% \$0	0.00% \$0	0.00% \$0	0% \$0	100%
Alt Water Supply	84,000	0% \$0	0% \$0	100% \$84,000	0% \$0	0% \$0	0.00% \$0	0.00% \$0	0% \$0	100%
Total Non-Operating Expenses	\$3,116,000	\$914,885	\$958,615	\$918,250	\$0	\$17,333	\$0	\$0	\$306,918	
Capital Improvements & Reserves	\$1,394,000	40% \$557,600	0% \$0	54% \$752,760	0% \$0	1% \$13,940	0.00% \$0	0.00% \$0	5% \$69,700	100%
Total Allocated Costs (Rounded)	\$10,751,000	40% \$4,277,000	14% \$1,534,000	38% \$4,059,000	1% \$120,000	1% \$86,000	0.12% \$13,000	0.10% \$11,000	6% \$651,000	

Ready-to-Serve Charges (RTS): The District should recover \$4,277,000, or approximately 40% of total costs from RTS Charges. RTS Charges represent the largest portion of costs recovered by the District and recover a large portion of fixed costs, including non-arsenic related debt service. These costs are incurred by the District regardless of the level of water usage.

Arsenic Charges: The District should recover \$1,534,000, or approximately 14% of total costs from Arsenic Charges. Two main cost components are allocated to Arsenic Charges: operating and maintenance for the arsenic plant, as well as 45% of annual debt service, which is estimated to be attributable to arsenic treatment facilities.

Usage Charges: The District should recover \$4,059,000 from Usage Charges, or 38% of total costs. Usage Charges recover a large portion of transmission and pumping plant cost, which tend to have a significant variable component. Conservation and alternative water supply costs are allocated to usage charges based on the increased expenses the District incurs from excessive

water users. Lost revenue from conservation is also allocated to Usage Charges, and represents revenue the District must still recover from rates should customers conserve as projected.

Zone Charges: The District should recover \$120,000 per year from Zone Charges. Zone Charges are designed to recover pumping costs associated with delivering water to higher elevations and are designed to recover approximately 8.5% of total District pumping plant costs.

Fire Prevention: The District should recover \$86,000 per year from Fire Prevention Charges. Costs of providing fire prevention services represent less than 1% of total District costs.

Bulk Water: The District should recover \$13,000 per year to provide services related to providing bulk water. Bulk water is water obtained by the customer from one of the District's bulk water station facilities.

Construction Water: The District should recover \$11,000 per year to provide Construction Meter Water Service. Construction Meter Water Service is provided through a temporary construction water meter installed on a fire hydrant generally for construction and other non-potable water use.

Non-Operating Revenue: The District should recover \$651,000 per year, or about 6% of total costs, from Non-Operating Revenue. Non-Operating revenues include administrative charges such as customer service charges, delinquent bills, and turn-off charges. Additional included revenues are capital contributions and miscellaneous non-service related revenue such as assessments, rent, and interest income. These charges are allocated heavily toward customer service, issuance and administrative costs, and miscellaneous non-operating expenses.

Required Rate Increases

BWA developed a cash flow model to determine the level of revenues required to meet the District's funding needs under the recommended rate structure. The cash flow model is shown in **Appendix B**. Key assumptions used in the model include:

1. The first rate increase is planned for March 1, 2015. All rate increases thereafter will be effective February 1 of each year. Increasing rates during the fiscal year results in a proration of revenue between the current level being collected and the level of revenue after the rate increase.
2. Rate increases are designed to meet the District's annual reserve fund target.
3. Growth is estimated at 0.5% each year.
4. Total 2014/15 consumption is projected at 2,749,000 ccf, approximately a 10% decrease from the previous year. Future consumption is expected to remain flat.
5. No increases are projected for Non-Operating Revenues (including Water Administration and Capital Contributions.)

BWA estimates that overall rate increases of **4.1%, 3.5%, 3.5%** over the next three years are required to meet debt service and reserve requirements. This scenario includes debt funding of capital projects in the form of a **\$10,000,000, 4%, 20 year loan** issued in FY 2018.

Under these rate increases, overall District revenue is projected to increase from approximately \$11 million in FY 2015 to about \$12.2 million in FY 2018. Factoring in the one-time expected 10% reduction in water sales revenue, the District is expected to receive \$10.4 million and \$11.5 million in revenue in FY 2015 and FY 2018 respectively.

Usage Charges

Usage Charges were developed by allocating the Usage Charge revenue requirement derived in **Table 14** to four tiers based on system peaking factors. Peaking factors represent the ratio of demand placed on the system between low usage and high usage months.

BWA calculated an overall system peaking factor by calculating the average monthly bill for each customer class during FY 2014 shown in **Table 15**.

Customer Class	July	August	September	October	November	December	January	February	March	April	May	June
Residential	30.24	27.72	26.30	24.78	17.53	11.84	10.71	10.36	10.23	13.18	17.84	21.85
Non Residential 8"	6668.50	6556.00	5377.00	4332.00	3500.00	1242.50	1224.50	1352.00	1733.50	1751.33	4349.00	4935.50
Non Residential 6"	950.00	902.22	894.22	692.67	652.67	462.11	482.00	439.00	489.89	513.11	667.78	859.22
Non Residential 4"	1297.75	1205.50	1000.00	934.00	643.63	549.71	540.25	538.38	548.13	655.50	809.00	837.63
Non Residential 3"	448.88	441.88	425.88	374.75	240.38	88.71	138.38	107.50	140.00	193.25	313.50	393.50
Non Residential 2"	228.43	221.80	218.12	184.33	168.30	127.94	90.00	98.87	107.69	127.38	160.68	190.72
Non Residential 1.5"	103.58	112.12	101.55	87.53	84.98	68.52	45.50	49.25	48.56	58.08	72.54	87.83
Non Residential 1"	48.92	49.62	49.66	41.07	37.08	27.97	27.06	26.58	25.64	28.76	34.05	39.40
Non Residential 3/4" and below	24.49	24.29	23.96	19.12	16.18	12.15	11.21	11.05	9.77	11.09	14.15	17.11

Peaking factors for each customer class were calculated by taking the highest average bill during the year divided by the lowest average bill during the year. The peaking factors for all classes were averaged to arrive at a system peaking factor of 3, as shown in **Table 16**. This factor indicates that customers on average demand approximately three times as much water in the highest use month compared to the lowest use month.

Customer Class	Max Month	Min Month	Peaking Factor
Residential	30.24	10.23	2.96
Non Residential 8"	6668.50	1224.50	5.45
Non Residential 6"	950.00	439.00	2.16
Non Residential 4"	1297.75	538.38	2.41
Non Residential 3"	448.88	88.71	5.06
Non Residential 2"	228.43	90.00	2.54
Non Residential 1.5"	112.12	45.50	2.46
Non Residential 1"	49.66	25.64	1.94
Non Residential 3/4" and below	24.49	9.77	2.51
Average Peaking Factor:			3.05

In **Table 17** BWA recommends restructuring the rate into four tiers by allocating a percentage of the Usage Charge revenue requirement to each tier based on peaking factors. Tier 1 was assigned a peaking factor of 1, representing low usage in the winter months. Tiers 2 and 3 were assigned peaking factors of 2 and 2 1/3 respectively, representing moderate use. Tier 4 was assigned a peaking factor of 3 to represent peak use during summer months. Peaking factor ratios of 12%, 24%, 28% and 36% were used to allocate the overall usage revenue requirements to each tier. The revenue requirement for each tier was divided by actual FY 2014 use in each tier to arrive at base usage rates.

Tier	Peaking Factor	% Usage Revenue	Revenue Requirement	FY 2014 HCF	Base Rate
Tier 1	1.00	12%	\$467,000	934,000	\$0.50
Tier 2	2.00	24%	961,000	1,217,000	\$0.79
Tier 3	2.33	28%	1,155,000	540,000	\$2.14
Tier 4	3.00	36%	<u>1,476,000</u>	<u>354,000</u>	\$4.17
			\$4,059,000	3,045,000	

Proposed Usage Charges

The base usage rates are increased by 4.1% in FY 2015, 3.5% in FY 2016, and 3.5% in FY 2017 based on the required overall rate increases needed by the District. The proposed usage rates are shown in **Table 18**.

		March 1st, 2015	February 1st, 2016	February 1st, 2017			March 1st, 2015	February 1st, 2016	February 1st, 2017
SINGLE FAMILY RESIDENTIAL (per HCF)					NON-SINGLE FAMILY RESIDENTIAL (per HCF)				
Tier 1	0 to 7	\$0.52	\$0.54	\$0.56	3" Meter				
Tier 2	7.01 to 24	\$0.82	\$0.85	\$0.88	Tier 1	0 to 75	\$0.52	\$0.54	\$0.56
Tier 3	24.01 to 45	\$2.23	\$2.31	\$2.39	Tier 2	75.01 to 256	\$0.82	\$0.85	\$0.88
Tier 4	45.01 & over	\$4.34	\$4.49	\$4.65	Tier 3	256.01 to 480	\$2.23	\$2.31	\$2.39
NON-SINGLE FAMILY RESIDENTIAL (per HCF)					Tier 4	480.01 & over	\$4.34	\$4.49	\$4.65
3/4" and Below Meters					4" Meter				
Tier 1	0 to 7	\$0.52	\$0.54	\$0.56	Tier 1	0 to 117	\$0.52	\$0.54	\$0.56
Tier 2	7.01 to 24	\$0.82	\$0.85	\$0.88	Tier 2	117.01 to 400	\$0.82	\$0.85	\$0.88
Tier 3	24.01 to 45	\$2.23	\$2.31	\$2.39	Tier 3	400.01 to 750	\$2.23	\$2.31	\$2.39
Tier 4	45.01 & over	\$4.34	\$4.49	\$4.65	Tier 4	750.01 & over	\$4.34	\$4.49	\$4.65
1" Meter					6" Meter				
Tier 1	0 to 12	\$0.52	\$0.54	\$0.56	Tier 1	0 to 233	\$0.52	\$0.54	\$0.56
Tier 2	12.01 to 40	\$0.82	\$0.85	\$0.88	Tier 2	233.01 to 800	\$0.82	\$0.85	\$0.88
Tier 3	40.01 to 75	\$2.23	\$2.31	\$2.39	Tier 3	800.01 to 1500	\$2.23	\$2.31	\$2.39
Tier 4	75.01 and over	\$4.34	\$4.49	\$4.65	Tier 4	1500.01 & over	\$4.34	\$4.49	\$4.65
1-1/2" Meter					8" Meter				
Tier 1	0 to 23	\$0.52	\$0.54	\$0.56	Tier 1	0 to 373	\$0.52	\$0.54	\$0.56
Tier 2	23.01 to 80	\$0.82	\$0.85	\$0.88	Tier 2	373.01 to 1280	\$0.82	\$0.85	\$0.88
Tier 3	80.01 to 150	\$2.23	\$2.31	\$2.39	Tier 3	1280.01 to 2400	\$2.23	\$2.31	\$2.39
Tier 4	150.01 & over	\$4.34	\$4.49	\$4.65	Tier 4	2400.01 & over	\$4.34	\$4.49	\$4.65
2" Meter					10" Meter				
Tier 1	0 to 37	\$0.52	\$0.54	\$0.56	Tier 1	0 - 537	\$0.52	\$0.54	\$0.56
Tier 2	37.01 to 128	\$0.82	\$0.85	\$0.88	Tier 2	537.01 - 1840	\$0.82	\$0.85	\$0.88
Tier 3	128.01 to 240	\$2.23	\$2.31	\$2.39	Tier 3	1840.01 - 3450	\$2.23	\$2.31	\$2.39
Tier 4	240.01 & over	\$4.34	\$4.49	\$4.65	Tier 4	3450.01 & over	\$4.34	\$4.49	\$4.65

Ready-to-Serve (RTS) Charge & Arsenic Charge

BWA recommends that the District phase in the combining of the 5/8" and 3/4" meter charges over the next three years to eliminate the impact of a sudden increase on the 5/8" meters, as shown in **Table 19**. To accomplish the 3-year phase in, BWA increased the 5/8" factor from the current 0.67 to 0.8 in FY 2015, 0.9 in FY 2016, and 1.0 in FY 2017.

Revenue requirements for meter charges (Arsenic and RTS) were determined in **Table 14**. The revenue requirement is increased by the required overall rate increase of 4.1%, 3.5%, and 3.5% from FY 2015 to FY 2017 to determine the required rates.

This method results in slight increases to meter charges for 3/4" and above sized meters, with approximately 20%, 13%, and 12% increases to meter charges over three years for 5/8" meters.

Table 19. Phased in 5/8" Meter Charges									
Revenue Adjustment %	4.1%		3.5%		3.5%				
Year of Increase	Current	2014/15	2015/16	2016/17					
Meter Charge Revenue Requirement	\$4,276,789	4,451,329	4,607,126	4,768,375					
Arsenic Charge Revenue Requirement	\$1,534,322	1,596,939	1,652,832	1,710,681					
Ready-to-Serve & Arsenic Charges 2014/15									
Monthly Ready-to-Serve Charge									
Meter Size	Factor	RTS	% Change From Current	Arsenic	% Change From Current	Total Meters	Meter Charges	Arsenic Charges	
5/8 x 3/4-inch	0.80	\$23.99	20.39%	\$8.61	20.39%	3,347	\$963,620	\$345,704	
3/4-inch	1.00	\$29.99	0.31%	\$10.76	0.28%	7,572	2,725,321	977,724	
1-inch	1.67	\$49.99	0.32%	\$17.93	0.30%	384	230,042	82,529	
1 1/2-inch	3.33	\$99.97	0.33%	\$35.87	0.33%	53	63,184	22,668	
2-inch	5.33	\$159.96	0.33%	\$57.39	0.33%	127	244,098	87,572	
3-inch	10.67	\$319.92	0.33%	\$114.77	0.33%	8	30,712	11,018	
4-inch	16.67	\$499.87	0.33%	\$179.33	0.33%	8	47,988	17,216	
6-inch	33.33	\$999.75	0.33%	\$358.67	0.33%	9	107,973	38,736	
8-inch	53.33	\$1,599.60	0.33%	\$573.86	0.33%	2	38,390	13,773	
10-inch	76.67	\$2,299.42	0.33%	\$824.93	0.33%	0	0	0	
						11,509	\$4,451,329	\$1,596,939	
Ready-to-Serve & Arsenic Charges 2015/16									
Monthly Ready-to-Serve Charge									
Meter Size	Factor	RTS	% Change From Prior	Arsenic	% Change From Prior	Total Meters	Meter Charges	Arsenic Charges	
5/8 x 3/4-inch	0.90	\$27.20	13.37%	\$9.76	13.37%	3,347	\$1,092,454	\$391,924	
3/4-inch	1.00	\$30.22	0.77%	\$10.84	0.77%	7,572	2,746,390	985,283	
1-inch	1.67	\$50.37	0.77%	\$18.07	0.77%	384	231,820	83,167	
1 1/2-inch	3.33	\$100.75	0.77%	\$36.14	0.77%	53	63,673	22,843	
2-inch	5.33	\$161.20	0.77%	\$57.83	0.77%	127	245,985	88,249	
3-inch	10.67	\$322.39	0.77%	\$115.66	0.77%	8	30,950	11,103	
4-inch	16.67	\$503.74	0.77%	\$180.72	0.77%	8	48,359	17,349	
6-inch	33.33	\$1,007.48	0.77%	\$361.44	0.77%	9	108,807	39,035	
8-inch	53.33	\$1,611.96	0.77%	\$578.30	0.77%	2	38,687	13,879	
10-inch	76.67	\$2,317.20	0.77%	\$831.31	0.77%	0	0	0	
						11,509	\$4,607,126	\$1,652,832	
Ready-to-Serve & Arsenic Charges 2016/17									
Monthly Ready-to-Serve Charge									
Meter Size	Factor	RTS	% Change From Prior	Arsenic	% Change From Prior	Total Meters	Meter Charges	Arsenic Charges	
5/8 x 3/4-inch	1.00	\$30.48	12.05%	\$10.93	12.05%	3,347	\$1,224,071	\$439,143	
3/4-inch	1.00	\$30.48	0.84%	\$10.93	0.84%	7,572	2,769,545	993,590	
1-inch	1.67	\$50.80	0.84%	\$18.22	0.84%	384	233,775	83,868	
1 1/2-inch	3.33	\$101.60	0.84%	\$36.45	0.84%	53	64,209	23,035	
2-inch	5.33	\$162.56	0.84%	\$58.32	0.84%	127	248,059	88,993	
3-inch	10.67	\$325.11	0.84%	\$116.64	0.84%	8	31,211	11,197	
4-inch	16.67	\$507.99	0.84%	\$182.24	0.84%	8	48,767	17,495	
6-inch	33.33	\$1,015.97	0.84%	\$364.49	0.84%	9	109,725	39,364	
8-inch	53.33	\$1,625.55	0.84%	\$583.18	0.84%	2	39,013	13,996	
10-inch	76.67	\$2,336.73	0.84%	\$838.32	0.84%	0	0	0	
						11,509	\$4,768,375	\$1,710,681	

Zone Charge Update

BWA examined the District's historical pumping costs, shown in **Table 20**. The annualized cost increase since FY 2010 is 7% per year. BWA recommends that the District increase Zone Charges each year by 7% to ensure the District is fully recovering the costs of pumping to high elevations. Proposed Zone Charges are shown in **Table 21**.

Year	Cost
2009/10	\$1,048,626
2010/11	\$1,044,468
2011/12	\$977,882
2012/13	\$977,167
2013/14	\$1,812,664
2014/15	\$1,454,800

Zone	Current	March	February	February
		1st, 2015	1st, 2016	1st, 2017
A	\$0.000	\$0.0000	\$0.0000	\$0.0000
B	\$0.114	\$0.1217	\$0.1299	\$0.1387
C	\$0.227	\$0.2424	\$0.2588	\$0.2763
D	\$0.341	\$0.3641	\$0.3887	\$0.4150
E	\$0.454	\$0.4847	\$0.5175	\$0.5525

Capital Facility Fee & Distribution System Fee Overview

Capacity charges or development impact fees are levied as a condition of development or change in use, and are designed to recover the cost of capacity in infrastructure and assets benefitting new development or expansion of an existing account.

The Indian Wells Valley Water District (District) currently levies a *Capital Facility Fee* on new or expanded development. The fee is collected to pay for the upgrade, rehabilitation, or replacement of existing water supply, storage, and transmission facilities, as well as the construction of new water facilities to serve new development.

The District also collects a *Distribution System Fee* on certain new connections to the system. This fee is a charge to recover costs associated with the provision of the water distribution system between major transmission lines and service laterals. Generally speaking, this applies to all water mains 10" and smaller in diameter.

Revenues generated from these fees are used exclusively to fund projects to upgrade or expand the water system and are not used to meet any operating expenses.

Government Code Section 66000

Development impact fees are governed by California Government Code Section 66000 et. seq. This section of the Code was initially established by Assembly Bill 1600 (AB 1600) and is commonly referred to as the Mitigation Fee Act. Pursuant to the Code, a development impact fee is not a tax or special assessment, but is instead a voluntary charge levied to defray the cost of public facilities needed to serve a new development. The act requires local governments to make the following findings when adopting such a fee:

1. Identify the purpose of the fee;
2. Identify the use of fee revenues;
3. Determine a reasonable relationship between the fee's use and the type of development paying the fee;
4. Determine a reasonable relationship between the need for the fee and the type of development paying the fee; and

5. Determine a reasonable relationship between the amount of the fee and the cost of the facility attributable to the development paying the fee.

In general, the fee may not exceed the cost of the facilities needed to accommodate the development paying the fee, and fee revenues can only be used to fund construction of the identified improvements.

Section 66013 of the Code specifically governs water and wastewater capacity charges. This section of the Code defines a “capacity charge” to mean “*a charge for public facilities in existence at the time a charge is imposed or charges for new public facilities to be acquired or constructed in the future that are of proportional benefit to the person or property being charged.*” The Code distinguishes “capacity charges” from “connection fees” which are defined as fees for the physical facilities necessary to make a water or sewer connection, such as costs related to installation of meters and pipelines from a new building to a water or sewer main.

According to the Section 66013, a water or wastewater capacity charge “*shall not exceed the estimated reasonable cost of providing the service for which the fee or charge is imposed*” unless approved by a two-thirds vote. As such, the capacity charges calculated in this report represent the maximum charges that the District can levy. Section 66013 does not detail any specific methodology for calculating capacity charges.

Capacity Fee & Distribution System Fee Methodology

The current fees are calculated using an “*average cost*” methodology. Under this approach, the value of existing and future capital assets is divided by the total number of existing and future customers. Key factors for this recommendation include:

- The District is largely built out. Capacity in existing infrastructure available for growth is limited. However, while some improvements may be needed to increase the capacity of various system components or mitigate bottlenecks (depending on where growth occurs), the existing infrastructure is anticipated to be capable of handling the capacity demands of growth for the foreseeable future.
- Improvements identified in the *10-Year (FY 2015 – 2024) Proposed Capital Improvement Plan (CIP) Plan* are required to address current deficiencies and improve reliability in the water system. These projects benefit both existing customers and growth. As such, the share of project costs related to system upgrades, expansion, and upsizing should be

included in fee recovery as these upgrades are needed to ensure adequate capacity and reliability through build-out.

- The Average Cost approach is one of the most widely used and accepted approaches for calculating capacity charges, particularly for service areas that are largely built out and served by infrastructure that has capacity available to meet the demands of anticipated growth.

EDU Calculation

The proposed water rates recommend combining the 5/8" and 3/4" meters to establish the 3/4" meter as the District's base meter size. As a result, the meter ratios and equivalent dwelling units (EDU) are also adjusted. **Table 22** shows the current number of EDUs based on the updated meter ratios. The result is that the total number of EDUs is lower than previous studies in which the 5/8" meter was the base meter.

BWA developed user growth projections in order to determine an equitable split of these assets among current and future users, using a conservative growth rate of 0.5% per year to estimate the addition of new users to the system over the next 10 years (which correlates with the *10-Year (FY 2015 – 2024) Proposed CIP Plan*). With an estimated 13,038 equivalent meters currently in service, and an expected build-out of 667 new equivalent meters, 95.1% of District assets are allocated to current users, and 4.9% is allotted to future users.

Table 22. EDU Calculation for Capital Facility & Distribution System Fee							
Current Customers by Meter Size (July 2013 - June 2014)							
Meter Size	Meter Ratios (1)	Residential	Multi-Family	Commercial	Public	Total	Equivalent 3/4" Meters
3/4-inch & smaller	1.00	10,380	160	319	61	10,919	10,919
1-inch	1.67	165	118	86	15	384	640
1 1/2-inch	3.33	0	11	36	6	53	175
2-inch	5.33	0	35	70	22	127	678
3-inch	10.67	0	2	4	2	8	85
4-inch	16.67	0	2	3	3	8	133
6-inch	33.33	0	6	1	2	9	300
8-inch	53.33	0	1	0	1	2	107
10-inch	76.67	0	0	0	0	0	0
Total		10,544	335	518	113	11,509	13,038
% of Total		91.6%	2.9%	4.5%	1.0%	100.0%	
Future EDU Estimate							
Current EDUS		13,038					
0.5% Annual Growth x 10 Years (2)		<u>667</u>					
Total Current + Future EDUs		13,705					
Source: Active Meters 2013-2014							
1 - Proposed meter ratios based on combining 5/8" and 3/4" meters							
2 - Future growth estimated at 0.5% growth annually compounded.							

Fixed Assets Valuation

The District has fixed capital assets in the form of land, production and source of supply, transmission and distribution, water plant, buildings, and equipment. There are a number of widely-used methods for valuing infrastructure and assets for cost recovery via capacity charges. BWA recommends using the *Replacement Cost New Less Depreciation* methodology to estimate the value of the water system. This approach escalates the depreciated accounting book value of each asset escalated into current dollars based on the change in the Engineering News-Record (ENR) Construction Cost Index from each asset's acquisition date. The ENR index is a widely-used index for determining construction cost inflation. Escalating the original cost by the ENR Construction Cost Index gives us a measure of what it would cost the District to replace all existing assets with comparable new ones as shown on **Table 23**.

Table 23. Fixed Asset Summary				
	Original Cost Escalated		Depreciation	RCNLD
	Original Cost	(ENR Adjusted)		
All Fixed Assets	\$91,026,316	\$162,414,134	\$100,294,730	\$62,119,403
<i>Transmission & Distribution</i>				
All Transmission & Distribution	36,775,703	86,501,397	62,729,889	23,771,508
<u>Major Trans & Distrib (Over 10" Lines) (1)</u>	<u>24,505,000</u>	<u>30,853,347</u>	<u>13,884,006</u>	<u>16,969,341</u>
Total Minor Trans & Distrib (10" & Smaller)	12,270,703	55,648,050	48,845,883	6,802,167
Total Fixed Assets Less Minor Trans & Distrib Lines (10" & Smaller)		106,766,083		55,317,236
1 Asset value for Major Transmission & Distribution lines (Over 10") escalated from "Estimated Current Value of Transmission Lines as of 2006" using 20-Cities ENR CCI.				

Capital Facility Fee

Table 24 details the calculation of the updated Capital Facility Fee.

Table 24. Proposed Capital Facility Fee						
Fixed Assets		Value				
Existing Capital Facility Assets (1)		\$55,317,236				
Future Capital Facility Assets (2)		\$11,812,450				
<u>Construction In-Progress (3)</u>		<u>\$2,322,395</u>				
Total		\$69,452,081				
Users (4)	EDUs	Allocation	Value	Value/EDU		
Existing	13,038	95.1%	\$66,071,955			
<u>Future (5)</u>	<u>667</u>	<u>4.9%</u>	<u>\$3,380,126</u>			
Total	13,705	100.0%	\$69,452,081	\$5,068		
Meter Size	Meter Ratios		Proposed Fees	Current Fee	% Change	
3/4"	1.00		\$5,068	\$4,818	5%	
1"	1.67		\$8,463	\$8,030	5%	
1 1/2"	3.33		\$16,875	\$16,060	5%	
2"	5.33		\$27,011	\$25,695	5%	
3"	10.67		\$54,072	\$51,390	5%	
4"	16.67		\$84,478	\$80,298	5%	
6"	33.33		\$168,905	\$160,595	5%	
8"	53.33		\$270,258	\$256,952	5%	
10"	76.67		\$388,537	\$369,369	5%	
1 Source: Depreciation Workbook - FY2014 Audit (063014). Does not include Distribution Assets (10" lines and smaller). Assets escalated by 20-Cities CCI ENR. 2 Source: FY 2015 - FY 2024 Proposed CIP Plan. Total All Projects less Transmission & Distribution Projects. 3 Source: Depreciation Workbook - FY2014 Audit (063014) 4 From Table 22 - in equivalent meters, one 5/8" or 3/4" meter equivalent = one EDU. 5 Assumes 0.5% annual growth for ten years						

The proposed fees represent the maximum fee that the District can levy on new development. The District can opt to phase in the fees or to enact a lower fee if warranted.

Distribution System Fee

Table 25 shows the current *Distribution System Fee*. This fee is exempted whenever water service is provided from a water main that was constructed and installed at the sole cost of the applicant or their predecessor in interest. Most new development occurs in locations where the predecessor in interest has already completed the installation. Therefore, this fee is rarely levied on new growth.

The value of the Major Transmission & Distribution Lines (Over 10") is escalated from costs developed in the 2006 study. BWA recommends maintaining the current *Distribution System Fee* and reevaluating the fee once the District has an updated inventory of water system pipelines throughout the District along with pipeline replacement costs.

Table 25. Current Distribution System Fee	
<u>Meter Size</u>	<u>Current Fee</u>
3/4"	\$3,724
1"	\$6,206
1 1/2"	\$12,412
2"	\$19,860
3"	\$39,719
4"	\$62,061
6"	\$124,122
8"	\$198,595
10"	\$285,480

Future Fee Adjustments

In future years, BWA recommends that the District update its capacity charges annually or periodically by adjusting the charges by the change in the ENR Construction Cost Index (20-Cities Average) to account for future construction cost inflation. The fee adjustment should be based on the change in the ENR index from the most recent preceding fee update, which allows for a multi-year adjustment if the District opts to defer adjusting the charges for a period of time. The District's capacity charge ordinance can allow for automatic annual fee adjustment.

Appendix A – IWVWD Capital Improvement Program

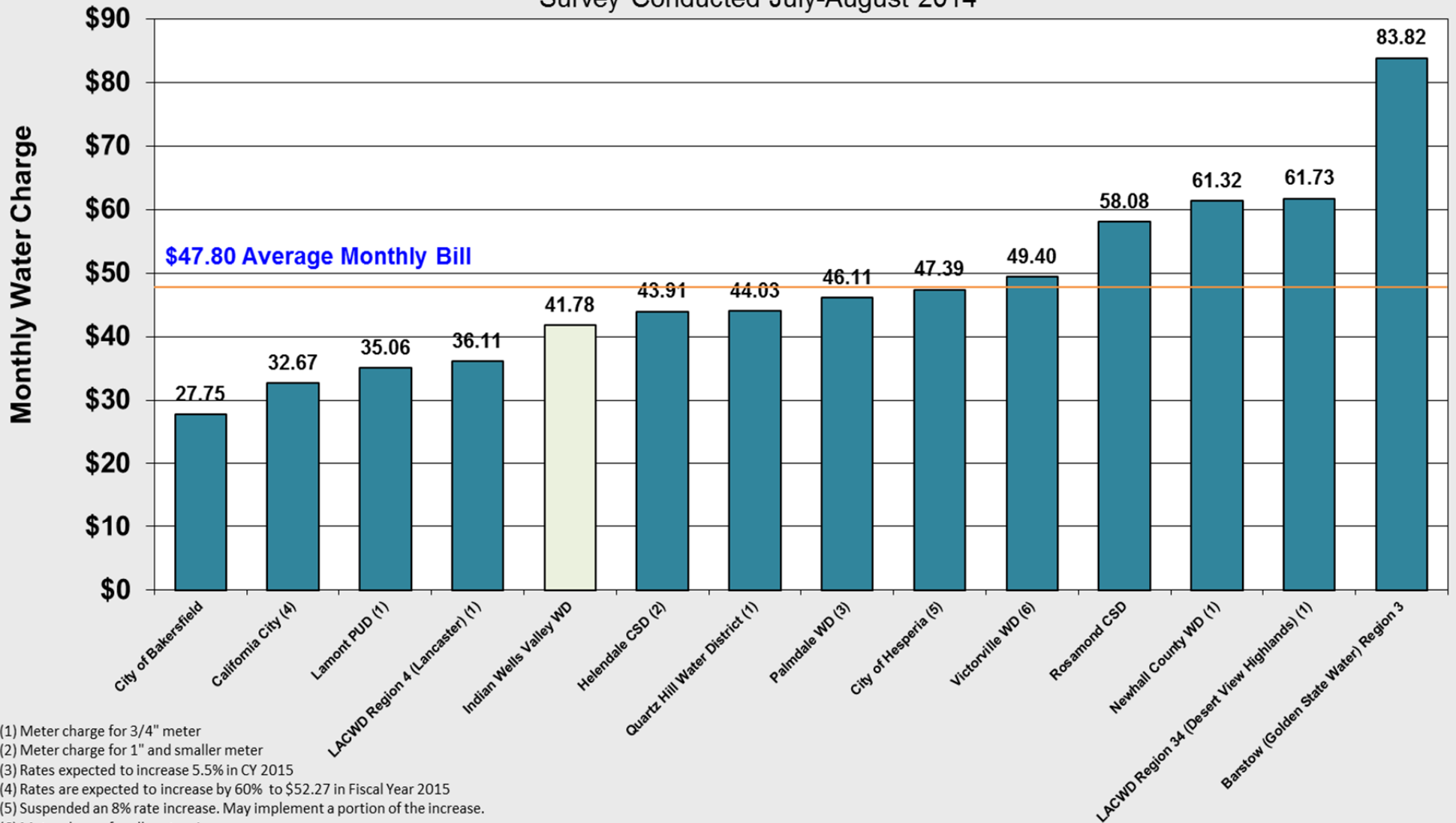
	Project	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Total	Comments
Pumping Plant	1-0-1115-801	Arsenic Treatment Plants - Sludge disposal	\$145,000									\$145,000	Four open sludgemates
	1-0-1115-817	Telemetry Replacements & Upgrades	\$104,962	\$10,000		\$10,000		\$10,000		\$10,000	\$10,000	\$154,962	2014-2015 Downs/Dolphin, Arsenic Plants & one telemetry system replacement every other year through FY 2024
	1-0-1115-820	Well No. 35/MPI (WSIP Phase I)			\$1,350,000	\$1,350,000						\$2,700,000	New Well 35 or MPI [Phase I]
	1-0-1115-827	Well Improvements (WSIP Phase I) - Well 34 Re-equip	\$250,000	\$250,000								\$500,000	Re-equip Well 34 (Split between FY 15 & FY 16)
	1-0-1115-828	Replacement Well				\$2,000,000						\$2,000,000	Placeholder in case a well goes down
	TOTAL PUMPING PLANT	\$499,962	\$260,000	\$1,350,000	\$3,360,000	\$0	\$10,000	\$0	\$10,000	\$0	\$10,000	\$5,499,962	
Transmission & Distribution	1-0-1117-300	New Service Installations	\$9,000	\$9,000	\$9,000	\$9,000	\$9,000	\$9,000	\$9,000	\$9,000	\$9,000	\$90,000	Placeholder for new service installations
	1-0-1117-306	Burns Mainline Replacement				\$200,000						\$200,000	Phase II of County paving project (@ 1/2 mile of pipe)
	1-0-1117-320	Sunland to Forest Knoll Mainline Relocations			\$300,000	\$300,000						\$600,000	Approx. 9000 ft in dirt. Move services from the alley & complete 4" to 8" upgrade
	1-0-1117-321	Greenlawn Mainline Replacement	\$89,000									\$89,000	Between California & Church 660 ft (4" to 8" upgrade)
	1-0-1117-322	Rancho Mainline Replacement	\$89,000									\$89,000	Between California & Church 660 ft (4" to 8" upgrade)
	1-0-1117-323	Forest Knoll Mainline Replacement		\$89,000								\$89,000	Between California & Church 660 ft (4" to 8" upgrade)
	1-0-1117-324	Springside Mainline Replacement		\$89,000								\$89,000	Between California & Church 660 ft (4" to 8" upgrade)
	1-0-1117-325	Primrose Mainline Replacement			\$89,000							\$89,000	Between California & Church 660 ft (4" to 8" upgrade)
	1-0-1117-326	Orchard Mainline Replacement			\$89,000							\$89,000	Between California & Church 660 ft (4" to 8" upgrade)
	1-0-1117-327	Gateway Mainline Replacement				\$200,000						\$200,000	Church to Ridgcrest Blvd 1320 ft (upgrade to 12")
	1-0-1117-328	French St Mainline Replacement					\$400,000					\$400,000	Replace old Navy 12 " pipe from China Lake Blvd to La Mirage (2600 ft)
	1-0-1117-329	Las Flores Mainline Extension to China Lake Blvd	\$71,000									\$71,000	Postponed to FY 2015. Complete a loop 300 ft.
	1-0-1117-330	Old Navy Housing Area Mainline Replacement					\$100,000	\$621,500	\$621,500			\$1,343,000	Gold Canyon, Oasis, Sahara, Palm, LaMirage, Sand Dune, Robalo, Aronda, Cisco, Nadeu, Sandora, Kashmir (approx 3 mi)
	1-0-1117-353	Kendall Mainline Replacement	\$1,200,000									\$1,200,000	Complete replacement
	1-0-1117-360	Fire Hydrants	\$7,500	\$7,500	\$7,500	\$7,500	\$7,500	\$7,500	\$7,500	\$7,500	\$7,500	\$75,000	Placeholder for new fire hydrants
	1-0-1117-361	East Bowman A-Zone Reservoir #1		\$50,000	\$415,000	\$1,313,000						\$1,778,000	A-Zone Tank/East Bowman Reservoir Project.
	1-0-1117-362	Trans Line Ext Bowman Rd to A-Zone Reservoir				\$1,500,000	\$2,250,000					\$3,750,000	Based on City & County paving schedule.
	1-0-1117-365	Springer to Gateway Tank			\$500,000	\$500,000						\$1,000,000	Maintain adequate water levels during peak usage periods.
	1-0-1117-370	Street Infrastructure Replacement Project	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$2,000,000	
1-0-1117-371	Ridgcrest Blvd. Mainline Replacement	\$550,645									\$550,645	Cost est revised to \$1.8 million. Between China Lake Blvd and Mahan.	
1-0-1117-375	Misc Pipeline per 1997 General Plan						\$300,000				\$300,000	Placeholder	
	TOTAL TRANSMISSION & DISTRIBUTION	\$2,216,145	\$444,500	\$1,609,500	\$4,229,500	\$2,966,500	\$1,138,000	\$838,000	\$216,500	\$216,500	\$216,500	\$14,091,645	
TECH	1-0-1117-414	Radio Read Meters (AMI Pilot)	\$243,000		\$500,000	\$3,000,000						\$3,743,000	AMI Pilot Project. Increased cost to \$243K for 468 vs. 418 meters.
	1-0-1118-100	Misc Computer Purchases	\$10,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$37,000	10 new laptops in FY 15 + \$5,000 annual emergency placeholder
	1-0-1118-105	Replacement Equipment, Customer Accounts	\$20,000									\$20,000	Placeholder for emergency Cust Svc equipment replacement (unused amount will roll forward to next year)
	1-0-1118-150	Springbrook Computer Upgrade-Asset Management		\$50,000								\$50,000	Asset management program
	1-0-1118-151	GIS Needs Assessment & Implementation	\$173,088									\$173,088	FY 2014 Phase I and partial Phase II; FY 2015 Complete Phase II and III
	TOTAL TECH	\$446,088	\$53,000	\$503,000	\$3,003,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$4,023,088	
General Plant	1-0-1118-005	SCADA Training Center	\$50,000									\$50,000	
	1-0-1118-400	Vehicles, Replacement		\$85,000		\$50,000		\$50,000		\$50,000	\$50,000	\$285,000	Replace one vehicle in FY 16, FY 18, FY 20, FY 22, FY 24
	1-0-1118-403	New Equipment, Security & Safety	\$75,000					\$20,000				\$95,000	\$25,000 for Customer Svc Security upgrades (glass, key pads, etc.) and \$50,000 for a fire suppression system
	1-0-1118-404	Equipment, Replacement	\$15,000	\$50,000								\$65,000	Office eqmt upgrade in FY 15. New vacuum trailer in FY 16.
	1-0-1118-405	New Equipment, Air Compressor	\$16,400									\$16,400	
	1-0-1118-406	Storage Bay, New or Move	\$60,000									\$60,000	
	1-0-1118-408	New Infrastructure, Block Wall		\$113,000								\$113,000	
	1-0-1118-409	New Infrastructure, Pave back parking lot					\$400,000					\$400,000	Pave from the buildings to the fence
	1-0-1118-953	Miscellaneous Capital Purchases	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$250,000	Placeholder for unplanned but necessary capital purchase
	TOTAL GENERAL PLANT	\$241,400	\$273,000	\$25,000	\$75,000	\$25,000	\$475,000	\$45,000	\$75,000	\$25,000	\$75,000	\$1,334,400	
Future Source of Supply	1-0-1114-001	Stine Property, Well									\$750,000	\$750,000	Develop farm property.
	1-0-1114-003	Brackish Water Resource Study		\$205,000								\$205,000	
		TOTAL FUTURE SOURCE OF SUPPLY	\$0	\$205,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$750,000	\$955,000
	Total	\$3,403,595	\$1,235,500	\$3,487,500	\$10,667,500	\$2,994,500	\$1,626,000	\$886,000	\$304,500	\$244,500	\$1,054,500	\$25,904,095	

Appendix B – IWVWD Cash Flow Projection

Indian Wells Valley Water District Condensed Cash Flow													
<i>*Assumes the first rate increase take place March 1s, FY 2015 with each following rate increase taking place February 1st.</i>													
Customer Growth %				0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%
Rate Increase % (Take place in prior FY)				4.08%	3.50%	3.50%	2.00%	2.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Sales Increase %				4.60%	4.02%	4.02%	2.51%	2.51%	0.50%	0.50%	0.50%	0.50%	0.50%
	FY 2014	FY 2015	Escalation	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Beginning Fund Balance		\$9,670,345		\$7,863,229	\$8,432,366	\$6,953,531	\$8,445,559	\$7,479,395	\$7,852,768	\$8,924,140	\$10,566,013	\$12,092,885	\$12,622,757
Operating Revenue													
Bank Loan Proceeds (4%, 20 Years)				\$10,000,000									
Meter Charges (Ready to Serve)	\$4,331,561	\$4,342,526	Sales Increase %	\$4,549,000	\$4,732,000	\$4,892,000	\$5,015,000	\$5,098,000	\$5,124,000	\$5,150,000	\$5,176,000	\$5,202,000	\$5,202,000
Meter Charges (Arsenic)	1,549,129	1,557,881	Sales Increase %	1,632,000	1,697,000	1,754,000	1,799,000	1,829,000	1,838,000	1,847,000	1,856,000	1,865,000	1,865,000
Commodity Charges	4,109,282	4,121,333	Sales Increase %	4,317,000	4,491,000	4,642,000	4,758,000	4,837,000	4,861,000	4,885,000	4,909,000	4,933,000	4,933,000
Zone Charges	128,520	122,000	Sales Increase %	128,000	133,000	137,000	140,000	142,000	143,000	144,000	145,000	146,000	146,000
Fire Prevention	86,074	87,333	Sales Increase %	92,000	96,000	99,000	101,000	103,000	104,000	105,000	106,000	107,000	107,000
Bulk Rate	13,889	13,333	Sales Increase %	14,000	15,000	16,000	16,000	16,000	16,000	16,000	16,000	16,000	16,000
Construction Water	19,917	11,333	Sales Increase %	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000
Subtotal Operating Revenue	\$10,238,373	\$10,255,740		\$10,744,000	\$11,176,000	\$21,552,000	\$11,841,000	\$12,037,000	\$12,098,000	\$12,159,000	\$12,220,000	\$12,281,000	\$12,281,000
Non Operating Revenue													
Water Administrative Revenues	\$271,678	\$271,000	0%	\$271,000	\$271,000	\$271,000	\$271,000	\$271,000	\$271,000	\$271,000	\$271,000	\$271,000	\$271,000
Capital Contributions	81,559	34,000	0%	34,000	34,000	34,000	34,000	34,000	34,000	34,000	34,000	34,000	34,000
Non-Operating Revenues	474,381	346,100	0%	346,100	346,100	346,100	346,100	346,100	346,100	346,100	346,100	346,100	346,100
Subtotal Non Operating Revenue	\$827,617	\$651,100		\$651,100	\$651,100	\$651,100	\$651,100	\$651,100	\$651,100	\$651,100	\$651,100	\$651,100	\$651,100
Total Revenues	\$11,065,990	\$10,906,840		\$11,395,100	\$11,827,100	\$22,203,100	\$12,492,100	\$12,688,100	\$12,749,100	\$12,810,100	\$12,871,100	\$12,932,100	\$12,932,100
Operating & Maintenance Expenses													
Misc Employee	\$40,495	\$0	3%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Pumping Plant	1,812,664	1,454,800	3%	1,498,000	1,543,000	1,589,000	1,637,000	1,686,000	1,737,000	1,789,000	1,843,000	1,898,000	1,955,000
Arsenic Plant	578,991	574,900	3%	592,000	610,000	628,000	647,000	666,000	686,000	707,000	728,000	750,000	773,000
Transmission & Distribution	1,410,153	1,350,400	3%	1,391,000	1,433,000	1,476,000	1,520,000	1,566,000	1,613,000	1,661,000	1,711,000	1,762,000	1,815,000
Engineering	328,145	309,000	3%	318,000	328,000	338,000	348,000	358,000	369,000	380,000	391,000	403,000	415,000
Customer Service	360,391	387,100	3%	399,000	411,000	423,000	436,000	449,000	462,000	476,000	490,000	505,000	520,000
Field Service	398,065	427,400	3%	440,000	453,000	467,000	481,000	495,000	510,000	525,000	541,000	557,000	574,000
Admin, Accounting & General	1,489,929	1,643,200	3%	1,692,000	1,743,000	1,795,000	1,849,000	1,904,000	1,961,000	2,020,000	2,081,000	2,143,000	2,207,000
Legislative	77,524	94,200	3%	97,000	100,000	103,000	106,000	109,000	112,000	115,000	118,000	122,000	126,000
Total Operating & Maintenance Expenses	\$6,496,359	\$6,241,000		\$6,427,000	\$6,621,000	\$6,819,000	\$7,024,000	\$7,233,000	\$7,450,000	\$7,673,000	\$7,903,000	\$8,140,000	\$8,385,000
Non-Operating Expenses													
Prorated Lost Revenue from 2014/15 10% Reduction in Use		\$684,831		\$713,464	\$738,435	\$759,572	\$774,763	\$783,728	\$783,728	\$783,728	\$783,728	\$783,728	\$783,728
DEBT SERVICE (4%, 20 Year Bank Loan)						\$736,000	\$736,000	\$736,000	\$736,000	\$736,000	\$736,000	\$736,000	\$736,000
Issuance & Administrative Costs	\$16,546	\$17,000	3%	\$18,000	\$19,000	\$20,000	\$21,000	\$22,000	\$23,000	\$24,000	\$25,000	\$26,000	\$27,000
Existing Debt Service (Principal & Interest)	\$2,297,680	\$2,134,530		2,135,000	2,134,000	2,130,000	1,584,000	1,581,000	1,456,000	1,293,000	1,287,000	1,286,000	1,283,000
OPEB & Conservation Web Pmnts	3,521	-55,000		0	0	0	0	0	0	0	0	0	0
Miscellaneous Non-Operating Expenses	97,525	132,000	3%	136,000	140,000	144,000	148,000	152,000	157,000	162,000	167,000	172,000	177,000
Conservation	34,016	72,000	3%	74,000	76,000	78,000	80,000	82,000	84,000	87,000	90,000	93,000	96,000
Alt Water Supply	34,417	84,000	3%	87,000	90,000	93,000	96,000	99,000	102,000	105,000	108,000	111,000	114,000
	\$2,483,705	\$3,069,361		\$3,163,464	\$3,197,435	\$3,224,572	\$3,439,763	\$3,455,728	\$3,341,728	\$3,190,728	\$3,196,728	\$3,207,728	\$3,216,728
Total Expenditures	\$8,980,064	\$9,310,361		\$9,590,464	\$9,818,435	\$10,043,572	\$10,463,763	\$10,688,728	\$10,791,728	\$10,863,728	\$11,099,728	\$11,347,728	\$11,601,728
Revenues Minus Expenses (Before Capital)	\$2,085,926	\$1,596,479		\$1,804,636	\$2,008,665	\$12,159,528	\$2,028,337	\$1,999,372	\$1,957,372	\$1,946,372	\$1,771,372	\$1,584,372	\$1,330,372
CIP Plan		\$3,403,595		\$1,235,500	\$3,487,500	\$10,667,500	\$2,994,500	\$1,626,000	\$886,000	\$304,500	\$244,500	\$1,054,500	\$500,000
Income Available for Reserves		(\$1,807,116)		\$569,136	(\$1,478,835)	\$1,492,028	(\$966,163)	\$373,372	\$1,071,372	\$1,641,872	\$1,526,872	\$529,872	\$830,372
Ending Fund Balance	\$9,670,345	\$7,863,229		\$8,432,366	\$6,953,531	\$8,445,559	\$7,479,395	\$7,852,768	\$8,924,140	\$10,566,013	\$12,092,885	\$12,622,757	\$13,453,130
Reserve Target¹		\$5,891,600		\$6,261,240	\$6,638,369	\$7,023,212	\$7,416,001	\$7,816,973	\$8,226,374	\$8,644,457	\$9,071,483	\$9,507,719	\$9,953,443
Reserve Target Met?		Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Debt Service Calculation													
Net Operating Revenues	\$3,742,014	\$3,859,111		\$4,140,000	\$4,371,000	\$14,614,000	\$4,695,000	\$4,780,000	\$4,623,000	\$4,461,000	\$4,292,000	\$4,116,000	\$3,933,000
Debt Service	\$2,297,680	\$2,134,530		\$2,135,000	\$2,134,000	\$2,130,000	\$2,320,000						

Appendix C – Regional Rate Survey – 5/8” Meter

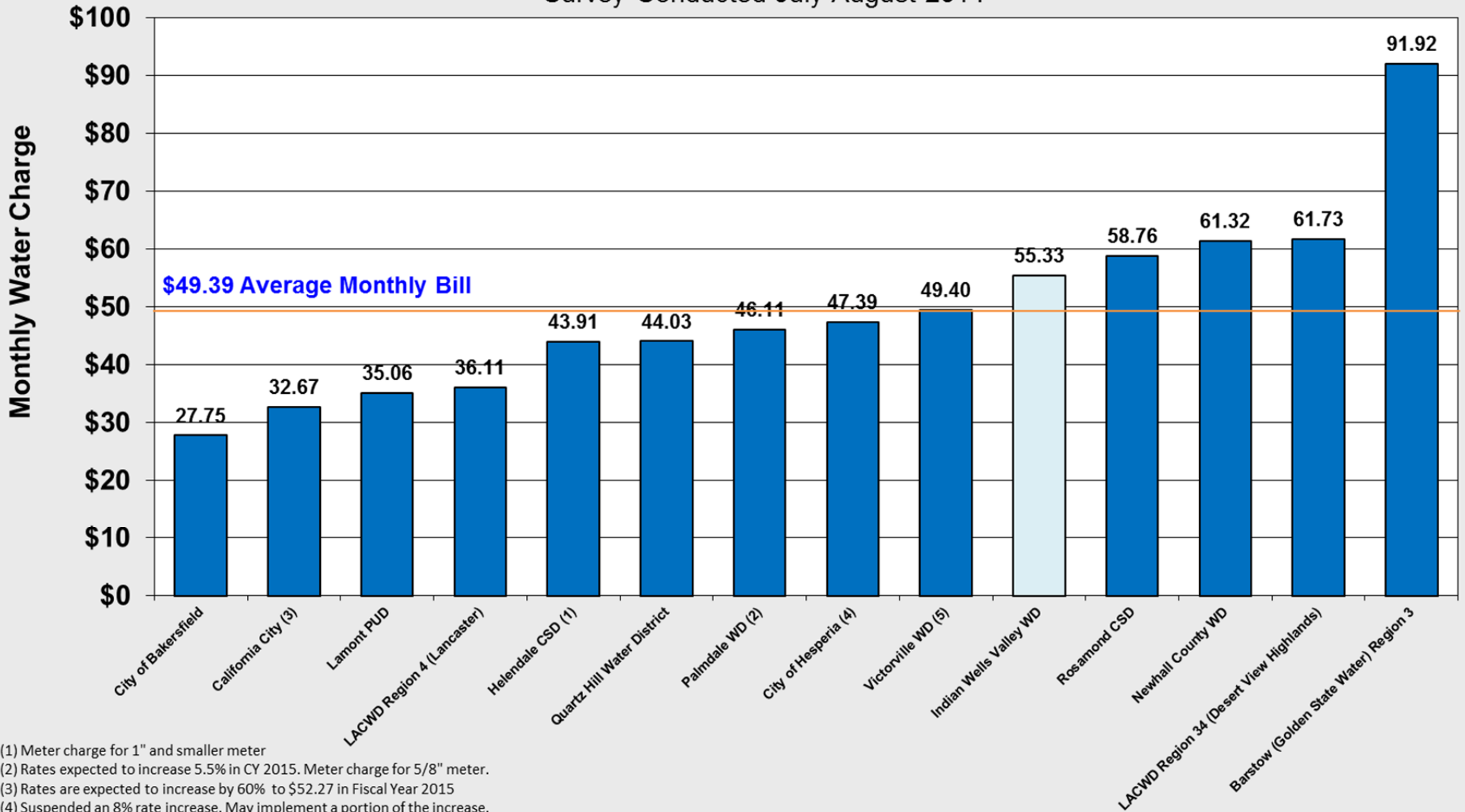
Indian Wells Valley Water District Survey of Monthly Residential Water Rates (5/8” meter, 20 ccf monthly usage) Survey Conducted July-August 2014



(1) Meter charge for 3/4" meter
 (2) Meter charge for 1" and smaller meter
 (3) Rates expected to increase 5.5% in CY 2015
 (4) Rates are expected to increase by 60% to \$52.27 in Fiscal Year 2015
 (5) Suspended an 8% rate increase. May implement a portion of the increase.
 (6) Meter charge for all meter sizes.

Appendix D – Regional Rate Survey – 3/4" Meter

Indian Wells Valley Water District Survey of Monthly Residential Water Rates (3/4" meter, 20 ccf monthly usage) Survey Conducted July-August 2014



(1) Meter charge for 1" and smaller meter
 (2) Rates expected to increase 5.5% in CY 2015. Meter charge for 5/8" meter.
 (3) Rates are expected to increase by 60% to \$52.27 in Fiscal Year 2015
 (4) Suspended an 8% rate increase. May implement a portion of the increase.
 (5) Rate is for all meter sizes.

Appendix E – Proposition 218 Notification

NOTICE OF PUBLIC HEARING

To: Property Owner of Record; Tenant in Possession of Property; and All Parcels within the Indian Wells Valley Water District that Receive Services

From: Indian Wells Valley Water District

Date: December 24, 2014

Notice is Hereby Given that on the **9th day of February, 2015 at 6:00 PM in the Board Room located at 500 W. Ridgecrest Boulevard, Ridgecrest, CA**, the Indian Wells Valley Water District (District) will conduct a public hearing on the proposal to adjust and increase its water rates, charges, and other fees. At said time, the District will hear and consider all objections and protests, if any, to said adjustments. The proposal will affect both current and future customers of the District, and thus could possibly affect all property within the District's boundaries.

The monthly water rate is comprised of a Ready-to-Serve Charge (fixed charge), an Arsenic Compliance Charge (fixed charge) and a Usage Charge per each HCF (hundred cubic feet) of water consumed. Some customers in higher elevations are also levied a Zone Charge based on the amount of water used. The District's water service charges are designed to recover the cost of service based on long-term operating and capital funding requirements. The proposed rates are based upon the revenues needed to meet projected operating expenses including arsenic treatment costs, electricity, alternate water supply, capital improvement projects, and debt service.

To account for continuing increases in the costs of water system operations and providing water services, the District is proposing changes in Usage Charges. Current Usage Charges are detailed in the rate schedules on the reverse side (see Table 1). The District is proposing to alter the Usage Charge rate structure by (1) combining Tiers 2 & 3 and Tiers 4, 5 & 6, (2) expanding the Residential Tier 1 from 5 to 7 HCF of water, (3) incremental annual increase over the next three years as shown on Table 2.

To maintain the operating efficiency of the District, the 3/4-inch meter is the standard size meter for the District's smallest sized water service for new service installations. However, the District still has 5/8-inch meters in service. Since there is little difference in the costs to serve a 5/8-inch meter compared to a 3/4-inch meter, the District will increase the fixed charges (which include Ready to Serve and Arsenic Compliance) for 5/8-inch meters over the next three years so they equal the fixed charges for 3/4-inch meters. The phase-in period is intended to minimize the rate impact on 5/8-inch customers. Proposed increases to the Ready-to-Serve charge and Arsenic Compliance charges for all meter sizes are shown on Tables 3 & 4.

At the above-noticed public meeting, the District will also consider increases to other charges/fees that include: Capital Facility Fees and Other Miscellaneous Fees and Charges (for example: Construction Meter charges, Bulk Water charges, Fire Service Rates, Delinquent Account charges, new account charges, after hours charges, and service installation charges).

The proposed changes and suggested increases are based upon the findings of the water rate study completed by Bartle Wells Associates, an independent public finance and rate consultant. This study will be available, at the District's office, for the public to view 10 days before the public hearing. This study recommended that the District make the proposed changes to ensure adjustments necessary to keep up with the expenses in providing quality water services. If you have any questions regarding the proposed changes, please call the District office at (760) 384-5515.

All interested parties may attend and be heard by the Board of the District at the time and place indicated above. If unable to attend, you may file a written protest prior to the hearing with the Secretary of the District at 500 W. Ridgecrest Blvd., P.O. Box 1329, Ridgecrest, CA 93556. Include the address or the property's Assessors Tax Number for each property for which a protest or other response is being made. Only one protest per property will be counted.

Table 1. Current Monthly Usage Charges

Current			Current		
<u>SINGLE FAMILY RESIDENTIAL (per HCF)</u>			<u>NON-SINGLE FAMILY RESIDENTIAL (per HCF)</u>		
Tier 1	0 - 5	\$0.50	3" Meter		
Tier 2	5.01 - 12	\$0.60	Tier 1	0 - 80	\$0.50
Tier 3	12.01 - 24	\$1.00	Tier 2	80.01 - 160	\$0.60
Tier 4	24.01 - 31	\$1.75	Tier 3	160.01 - 240	\$1.00
Tier 5	31.01 - 38	\$2.25	Tier 4	240.01 - 320	\$1.75
Tier 6	38.01 - 45	\$2.75	Tier 5	320.01 - 400	\$2.25
Tier 7	45.01 & over	\$4.13	Tier 6	400.01 - 480	\$2.75
			Tier 7	480.01 & over	\$4.13
<u>NON-SINGLE FAMILY RESIDENTIAL (per HCF)</u>					
5/8" Meter			4" Meter		
Tier 1	0 - 5	\$0.50	Tier 1	0 - 125	\$0.50
Tier 2	5.01 - 10	\$0.60	Tier 2	125.01 - 250	\$0.60
Tier 3	10.01 - 15	\$1.00	Tier 3	250.01 - 375	\$1.00
Tier 4	15.01 - 20	\$1.75	Tier 4	375.01 - 500	\$1.75
Tier 5	20.01 - 25	\$2.25	Tier 5	500.01 - 625	\$2.25
Tier 6	25.01 - 30	\$2.75	Tier 6	625.01 - 750	\$2.75
Tier 7	30.01 & over	\$4.13	Tier 7	750.01 & over	\$4.13
3/4" Meter			6" Meter		
Tier 1	0 - 8	\$0.50	Tier 1	0 - 250	\$0.50
Tier 2	8.01 - 15	\$0.60	Tier 2	250.01 - 500	\$0.60
Tier 3	15.01 - 23	\$1.00	Tier 3	500.01 - 750	\$1.00
Tier 4	23.01 - 30	\$1.75	Tier 4	750.01 - 1000	\$1.75
Tier 5	30.01 - 38	\$2.25	Tier 5	1000.01 - 1250	\$2.25
Tier 6	38.01.01 - 45	\$2.75	Tier 6	1250.01 - 1500	\$2.75
Tier 7	45.01 & over	\$4.13	Tier 7	1500.01 & over	\$4.13
1" Meter			8" Meter		
Tier 1	0 - 13	\$0.50	Tier 1	0 - 400	\$0.50
Tier 2	13.01 - 25	\$0.60	Tier 2	400.01 - 800	\$0.60
Tier 3	25.01 - 38	\$1.00	Tier 3	800.01 - 1200	\$1.00
Tier 4	38.01 - 50	\$1.75	Tier 4	1200.01 - 1600	\$1.75
Tier 5	50.01 - 63	\$2.25	Tier 5	1600.01 - 2000	\$2.25
Tier 6	63.01 - 75	\$2.75	Tier 6	2000.01 - 2400	\$2.75
Tier 7	75.01 & over	\$4.13	Tier 7	2400.01 & over	\$4.13
1-1/2" Meter			10" Meter		
Tier 1	0 - 25	\$0.50	Tier 1	0 - 575	\$0.50
Tier 2	25.01 - 50	\$0.60	Tier 2	575.01 - 1150	\$0.60
Tier 3	50.01 - 75	\$1.00	Tier 3	1150.01 - 1725	\$1.00
Tier 4	75.01 - 100	\$1.75	Tier 4	1725.01 - 2300	\$1.75
Tier 5	100.01 - 125	\$2.25	Tier 5	2300.01 - 2875	\$2.25
Tier 6	125.01 - 150	\$2.75	Tier 6	2875.01 - 3450	\$2.75
Tier 7	150.01 & over	\$4.13	Tier 7	3450.01 & over	\$4.13
2" Meter					
Tier 1	0 - 40	\$0.50			
Tier 2	40.01 - 80	\$0.60			
Tier 3	80.01 - 120	\$1.00			
Tier 4	120.01 - 160	\$1.75			
Tier 5	160.01 - 200	\$2.25			
Tier 6	200.01 - 240	\$2.75			
Tier 7	240.01 & over	\$4.13			

Table 2. Proposed Monthly Usage Charges

		March 1st, 2015	February 1st, 2016	February 1st, 2017			March 1st, 2015	February 1st, 2016	February 1st, 2017
SINGLE FAMILY RESIDENTIAL (per HCF)					NON-SINGLE FAMILY RESIDENTIAL (per HCF)				
Tier 1	0 to 7	\$0.52	\$0.54	\$0.56	3" Meter				
Tier 2	7.01 to 24	\$0.82	\$0.85	\$0.88	Tier 1	0 to 75	\$0.52	\$0.54	\$0.56
Tier 3	24.01 to 45	\$2.23	\$2.31	\$2.39	Tier 2	75.01 to 256	\$0.82	\$0.85	\$0.88
Tier 4	45.01 & over	\$4.34	\$4.49	\$4.65	Tier 3	256.01 to 480	\$2.23	\$2.31	\$2.39
NON-SINGLE FAMILY RESIDENTIAL (per HCF)					Tier 4	480.01 & over	\$4.34	\$4.49	\$4.65
3/4" and Below Meters					4" Meter				
Tier 1	0 to 7	\$0.52	\$0.54	\$0.56	Tier 1	0 to 117	\$0.52	\$0.54	\$0.56
Tier 2	7.01 to 24	\$0.82	\$0.85	\$0.88	Tier 2	117.01 to 400	\$0.82	\$0.85	\$0.88
Tier 3	24.01 to 45	\$2.23	\$2.31	\$2.39	Tier 3	400.01 to 750	\$2.23	\$2.31	\$2.39
Tier 4	45.01 & over	\$4.34	\$4.49	\$4.65	Tier 4	750.01 & over	\$4.34	\$4.49	\$4.65
1" Meter					6" Meter				
Tier 1	0 to 12	\$0.52	\$0.54	\$0.56	Tier 1	0 to 233	\$0.52	\$0.54	\$0.56
Tier 2	12.01 to 40	\$0.82	\$0.85	\$0.88	Tier 2	233.01 to 800	\$0.82	\$0.85	\$0.88
Tier 3	40.01 to 75	\$2.23	\$2.31	\$2.39	Tier 3	800.01 to 1500	\$2.23	\$2.31	\$2.39
Tier 4	75.01 and over	\$4.34	\$4.49	\$4.65	Tier 4	1500.01 & over	\$4.34	\$4.49	\$4.65
1-1/2" Meter					8" Meter				
Tier 1	0 to 23	\$0.52	\$0.54	\$0.56	Tier 1	0 to 373	\$0.52	\$0.54	\$0.56
Tier 2	23.01 to 80	\$0.82	\$0.85	\$0.88	Tier 2	373.01 to 1280	\$0.82	\$0.85	\$0.88
Tier 3	80.01 to 150	\$2.23	\$2.31	\$2.39	Tier 3	1280.01 to 2400	\$2.23	\$2.31	\$2.39
Tier 4	150.01 & over	\$4.34	\$4.49	\$4.65	Tier 4	2400.01 & over	\$4.34	\$4.49	\$4.65
2" Meter					10" Meter				
Tier 1	0 to 37	\$0.52	\$0.54	\$0.56	Tier 1	0 - 537	\$0.52	\$0.54	\$0.56
Tier 2	37.01 to 128	\$0.82	\$0.85	\$0.88	Tier 2	537.01 - 1840	\$0.82	\$0.85	\$0.88
Tier 3	128.01 to 240	\$2.23	\$2.31	\$2.39	Tier 3	1840.01 - 3450	\$2.23	\$2.31	\$2.39
Tier 4	240.01 & over	\$4.34	\$4.49	\$4.65	Tier 4	3450.01 & over	\$4.34	\$4.49	\$4.65



MAILING ADDRESS

Table 3. Proposed Monthly Ready-to-Serve (Basic) Charges				
Meter Size	Current	March 1st, 2015	February 1st, 2016	February 1st, 2017
5/8 x 3/4-inch	\$19.93	\$23.99	\$27.20	\$30.48
3/4-inch	\$29.90	\$29.99	\$30.22	\$30.48
1-inch	\$49.83	\$49.99	\$50.37	\$50.80
1 1/2-inch	\$99.65	\$99.97	\$100.75	\$101.60
2-inch	\$159.44	\$159.96	\$161.20	\$162.56
3-inch	\$318.88	\$319.92	\$322.39	\$325.11
4-inch	\$498.25	\$499.87	\$503.74	\$507.99
6-inch	\$996.50	\$999.75	\$1,007.48	\$1,015.97
8-inch	\$1,594.40	\$1,599.60	\$1,611.96	\$1,625.55
10-inch	\$2,291.95	\$2,299.42	\$2,317.20	\$2,336.73
Table 4. Proposed Monthly Arsenic Charges				
Meter Size	Current	March 1st, 2015	February 1st, 2016	February 1st, 2017
5/8 x 3/4-inch	\$7.15	\$8.61	\$9.76	\$10.93
3/4-inch	\$10.73	\$10.76	\$10.84	\$10.93
1-inch	\$17.88	\$17.93	\$18.07	\$18.22
1 1/2-inch	\$35.75	\$35.87	\$36.14	\$36.45
2-inch	\$57.20	\$57.39	\$57.83	\$58.32
3-inch	\$114.40	\$114.77	\$115.66	\$116.64
4-inch	\$178.75	\$179.33	\$180.72	\$182.24
6-inch	\$357.50	\$358.67	\$361.44	\$364.49
8-inch	\$572.00	\$573.86	\$578.30	\$583.18
10-inch	\$822.25	\$824.93	\$831.31	\$838.32
Table 5. Proposed Monthly Zone Charges				
Zone	Current	March 1st, 2015	February 1st, 2016	February 1st, 2017
A	\$0.000	\$0.000	\$0.000	\$0.000
B	\$0.114	\$0.122	\$0.130	\$0.139
C	\$0.227	\$0.242	\$0.259	\$0.276
D	\$0.341	\$0.364	\$0.389	\$0.415
E	\$0.454	\$0.485	\$0.518	\$0.553