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**CALL AND NOTICE OF SPECIAL JOINT MEETING
OF THE JOSHUA BASIN WATER DISTRICT
BOARD OF DIRECTORS
AND CITIZENS ADVISORY COMMITTEE**

WEDNESDAY, SEPTEMBER 18, 2013 4:00 PM

Notice is hereby given that Mickey Luckman, President of the Joshua Basin Water District Board of Directors and Jay St. Gaudens, Chairman of the Joshua Basin Water District Citizens Advisory Committee, hereby call a Special Joint Meeting of the Board of Directors and Citizens Advisory Committee of said District to be held Wednesday, September 18th 2013 at 4:00 pm at the Joshua Basin Water District office located at 61750 Chollita Road, Joshua Tree CA 92252 for the purpose of discussion and possible action on the attached agenda.

Dated: Wednesday, September 18, 2013



Mickey Luckman, President, Board of Directors
Joshua Basin Water District



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JOSHUA BASIN WATER DISTRICT
SPECIAL JOINT MEETING OF THE BOARD OF DIRECTORS AND
CITIZENS ADVISORY COMMITTEE
WEDNESDAY SEPTEMBER 18, 2013 4:00 PM
61750 CHOLLITA ROAD, JOSHUA TREE, CA 92252

AGENDA

1. CALL TO ORDER
2. PLEDGE OF ALLEGIANCE
3. DETERMINATION OF QUORUM
4. APPROVAL OF AGENDA
5. PUBLIC COMMENT
6. RATE STUDY DISCUSSION
7. CONFIRM DATE FOR NEXT SPECIAL JOINT MEETING OF THE BOARD OF DIRECTORS AND CITIZENS ADVISORY COMMITTEE IS OCTOBER 2, 2013
8. ADJOURNMENT

Pg. 1-25

INFORMATION

The Public Comment portion of this agenda provides an opportunity for the public to address the Board of Directors on items not listed on the agenda that are of interest to the public at large and are within the subject matter jurisdiction of this Board. The Board of Directors is prohibited by law from taking action on matters discussed that are not on the agenda, and no adverse conclusions should be drawn if the Board does not respond to public comments at this time. Comments that concern individual customer accounts are welcome; however, we encourage doing so only after other administrative avenues for redress have been fully exhausted. In all cases, your concerns will be referred to the General Manager for review and a timely response.

Comments are to be limited to three minutes per speaker and shall not exceed a total of 20 minutes. All comments are to be directed to the Board of Directors and shall not consist of any personal attacks. Members of the public are expected to maintain a professional, courteous decorum during their comments. Public input may be offered on an agenda item when the item comes up for discussion and/or action. Members of the public who wish to speak shall proceed to the podium when called by the President of the Board. Please state your name and community of residence for the record.

Any person with a disability who requires accommodation in order to participate in this meeting should telephone Joshua Basin Water District at (760) 366-8438, at least 48 hours prior to the meeting to make a request for a disability-related accommodation.

Materials related to an item on this Agenda submitted to the Board of Directors after distribution of the agenda packet are available for public inspection in the District's office located at 61750 Chollita Road, Joshua Tree, California 92252 during normal business hours.

Joshua Basin Water District



Water Rate Study

Key Issues & Preliminary Findings

Draft 09/12/13



BARTLE WELLS ASSOCIATES
INDEPENDENT PUBLIC FINANCE ADVISORS



Joshua Basin Water District

Water Rate Study – Summary of Key Issues

Background

- District provides water service to a 96-square-mile service area
- Facilities include over 270 miles of pipelines, 5 wells, 17 water tanks, 11 booster stations
- Groundwater is sole source of supply
- District serves roughly 4,560 active accounts, over 95% are single family homes

Rates & Finances

- District is a self-supporting enterprise
 - Rates are the main source of revenue
 - Revenues must be adequate to fund the cost of providing service including long-term operating and capital needs
- After a decade of minimal to no rate increases from 1996-2006, District provided good financial stewardship by implementing gradual rate increases but has eased off in recent years
 - Since 1996, water rates have risen by an average of 1.07% per year through 2013
- Last water rate study completed 2007
 - Projected need for long-term 6% annual rate increases
 - District adopted 4 years of 6% rate increases
 - District spread the rate increases over 5 years and adopted no rate increases for the subsequent 2 years (*average annual increase over past 7 years is roughly 3.5%*)

Effective Jan-1	2007	2008	2009	2010	2011	2012	2013
Adopted Rates	6%	6%	6%	6%			
Implemented	6%	6%	3%	6%	3%	0%	0%

- Water rates in lower-middle range compared to other regional agencies
 - Monthly Bill for a single family home with roughly average use of 10 ccf = \$46.47
 - Equivalent to \$0.62 per each 100 gallons of water use (6/10^{ths} of a penny per gallon)
 - Average bill is about 14% lower than the regional survey average for same level of use
 - Roughly 2/3 of District’s residential bills are at or below this level
- District has historically maintained prudent fund reserves, but reserves are temporarily low
 - Reserves decreased to roughly \$1.8 million as of June 30, 2013
 - District to receive a little over \$3.5 million of reimbursements this year from MWA & DWR
- District receiving substantial grants & reimbursements
 - \$7.2 million total grant funding for recharge project (via DWR, CDPH, MWA grants)
 - Additional \$599,000 received this year for MWA reserve reimbursement
 - Some will be reimbursed to District, some will be used to fund recharge project
- ***District facing substantial financial challenges that will require rate increases in upcoming years***

Financial Challenges

➤ **Long-Term Water Supply**

- Groundwater provides 100% of District supply
- Long-term problem: local aquifers receive minimal natural recharge resulting in significant decreases in groundwater levels
- 71-mile Morongo Pipeline (funded largely by taxpayers) and grant-funded recharge facilities will help replenish aquifer (ultimately may need to import 100% supply)
- Total District demand = about 1,650 acre-feet per year
- Imported water purchased from MWA currently costs roughly \$450 per acre-foot with rates expected to increase 5% per year
- The cost of 500 AF (less than 1/3 of District supply) costs about \$250,000 per year (on average)

➤ **Infrastructure Repair, Replacement, and Rehabilitation**

- Facilities include over 270 miles of pipelines, 5 wells, 17 water tanks, 11 booster stations
- High-priority need to replace 70,000 feet of undersized, substandard 4" steel pipelines
 - *Cost estimate: \$5 million*
 - Would likely need to be at least partially debt financed
- Future need for ongoing pipeline replacement program
 - *Cost estimate: Approx. \$500,000 per year to replaced 7,500 feet (1-1/2 miles) each year*
 - Can phase in to this level of funding over a number of years.
- Additional funding needed for maintenance/rehabilitation of water tanks, wells, boosters, equipment, and technology
 - *Cost estimate: \$400,000 per year ongoing (\$200,000 in FY 2013/14 Budget)*
 - Can phase in to this level of funding over a number of years
 - Also, Well 14 may need major refurbishment (not done since 1983)
- Future regulatory requirements
 - *Can be many millions for new treatment infrastructure and ongoing operations*

➤ **Operating Cost Inflation**

- Small annual rate increases needed to keep revenues in line with operating cost inflation

➤ **Decline in Water Sales**

- Water sales have declined from peak years in the mid-2000s and may further decline due to additional conservation and customer response to rate increases
- Reduced sales = reduced revenues = upward pressure on rates
- *Conservation results in slightly lower bills than otherwise (the higher rate is more than offset by the reduced level of water purchases for customers who conserve)*

Financial Projections

- BWA developed 10-year financial projections to evaluate annual revenue requirements and project rate increases
- Key Assumptions:
 - Based on 2013/14 Budget
 - Operating cost inflation projected at 4% per year
 - Growth projected to escalate from 10 to 20 single family homes per year over next 5 years
 - Water sales projected to decline by 2% for each 10% of rate increases (-0.2 elasticity)
 - District’s payments for a share of Morongo Pipeline debt reaches final maturity in 2020/21, freeing up \$220,000 per year
 - District to receive a little over \$3.5 million of reimbursements this fiscal year
 - Funding for MWA water purchases projected to remain at 500 AF per year for at least next 5 years (until additional financial resources are available)
 - \$5 million replacement of 70,000 feet of substandard 4” pipelines assumed to be funded by a \$2 million drawdown of fund reserves coupled with a \$3 million 20-year loan (debt service = \$240,000 per year)
 - Funding for ongoing maintenance/repair/rehab of wells, boosters, tanks, and future pipeline replacement is phased in over the next approximately 5 years
 - Minimum fund reserve target for planning purposes: 30% of O&M + \$2 million for emergency and other reserves (escalates from \$3.1M to \$3.5M in 10 years)

Preliminary Draft Rate Projections

Effective Jan-1	2014	2015	2016	2017	2018
Draft Rate Adjustments	8.5%	8.5%	8.5%	8.5%	8.5%

- Lower rate increases in near term results in higher rate increases in longer term and vice versa
- Rates can be partially offset by new revenue sources
 - Capacity charges paid by new connections to the water system; revenues vary based on growth (e.g. current fees generate roughly \$36,000 for every 10 new 3/4" meter connections)
 - e.g. requiring pulled meters to pay the fixed monthly charge would generate about \$325,000 per year and could reduce the burden on other ratepayers by roughly 2% per year
- District needs to choose how many years of rate increases to adopt via Prop. 218 process
 - BWA typically recommends 3-5 years

Water Rate Structure

- Water rates include 2 components
 - Basic Monthly Fee: Fixed meter charge based on meter size (52% of rate revs)
 - Higher charges for larger meters based on increased capacity needs in water system
 - Water Flow Charge: Variable charge based on metered water use (48% of rate revenues)
 - Single family homes (95% of accounts) pay according to a 4-tier rate structure
(note: 4th tier was added in last rate study based on input from the CAC)
 - All others pay uniform charge (equal to the weighted average of single family tiers)

- Rate structure needs to comply with CUWCC BMP 1.4 for grant eligibility
 - Option 1: 30% fixed and 70% variable rate recovery
 - More conservation incentive, but less financial stability with significantly higher variable revenue recovery
 - Big change from current rate structure
 - Option 2: Run CUWCC financial model to determine cost recovery
 - Preliminary analysis indicates variable rates should recover at least 50% of rate revenues

Fixed Meter Charge Alternatives

- Reduce fixed meter charge revenue recovery from current level of 52% to below 50%
 - Compared to other regional agencies, higher water users in the District pay lower rates per unit for higher levels of water use
 - Alternative A: 50% fixed charge revenue recovery
 - Alternative B: Gradually decrease over 5 years to 40% revenue recovery
 - Alternative C: Gradually decrease over 5 years to 30% revenue recovery

Note: lower fixed charge revenue recovery results in lower impacts to low water users and higher impacts to higher water users
- Combine rates for 3/4-inch and 1-inch meters into a single rate
 - New plumbing code requirements require 1-inch meters for homes that have the same demand as current homes with 3/4-inch meters
 - Currently over 4,320 3/4-inch meters and 175 1-inch meters

Variable Water Rate Structure Alternatives

- Adjust the steepness of residential tiers to gradually increase conservation incentive
 - Can steepen the rates from tier to tier
 - Can reduce the amount of water purchased in each tier
 - Rate adjustments can be phased in over multiple years to minimize the annual impact

Note: Steeper tiers and/or reduced tier breakpoints result in lower impacts to low water users and higher impacts to higher water users

Other Rate Issues

- How to deal with secondary dwelling units served by single meter
- Potential for billing 1,147 pulled meters for the minimum fixed meter charge

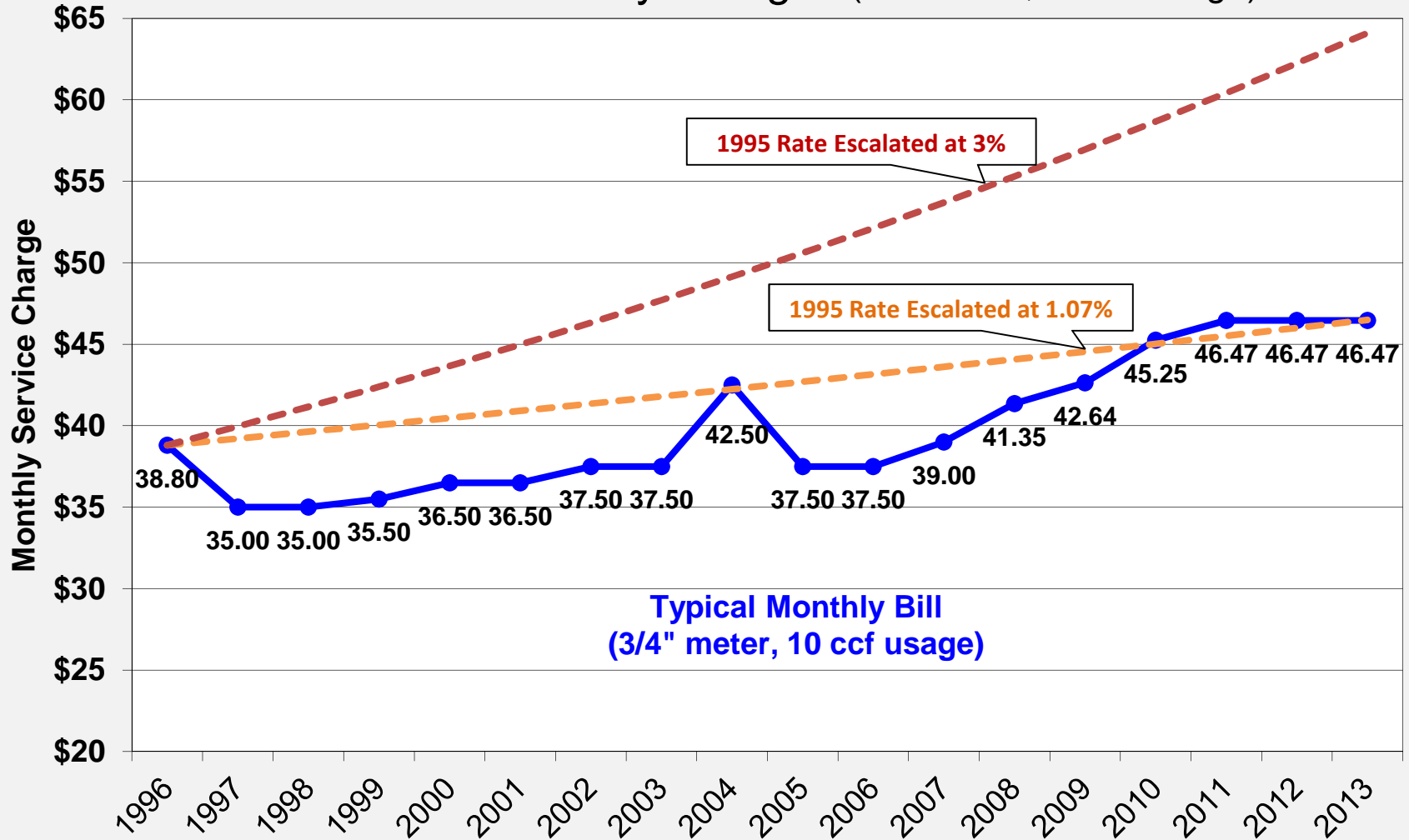
Next Steps

- Receive CAC and Board input on rate increases and rate structure
- Develop draft and final rate recommendations
- Adopt water rate increases for future years via the Prop. 218 process with the goal of having new rates effective starting January 1, 2014

Table 1
 Joshua Basin Water District
 Monthly Water Rates

Effective Jan-1	2007	2008	2009	2010	Current 2011	
RATE ADJUSTMENT	6%	6%	3%	6%	3%	
BASIC MONTHLY FEE						
<u>Meter Size</u>	<u>Capacity (gpm)</u>	<u>Monthly Rate</u>				
3/4"	30	\$20.00	\$21.20	\$21.84	\$23.15	\$23.82
1"	50	33.30	35.30	36.36	38.55	39.70
1-1/2"	100	66.70	70.70	72.83	77.20	79.40
2"	160	106.70	113.10	116.50	123.49	127.00
3"	300	200.00	212.00	218.40	231.51	238.20
MONTHLY WATER FLOW CHARGES						
For 3/4" & 1" Meters		<u>Rate Per Unit (hcf)*</u>				
<u>Consumption</u>						
0 - 5 units		\$1.80	\$1.91	\$1.97	\$2.09	\$2.14
5.01 - 20 units		2.00	2.12	2.19	2.33	2.39
20.01 - 40 units		2.10	2.25	2.32	2.46	2.57
40.01 + units		2.15	2.35	2.42	2.57	2.75
<i>1 unit = one hundred cubic feet = 748 gallons</i>						
For 1-1/2", 2" and 3" Meters		<u>Rate Per Unit (hcf)*</u>				
Unit rate per all water use		\$2.00	\$2.12	\$2.19	\$2.33	\$2.39
PRIVATE FIRE PROTECTION						
<u>Device Size</u>		<u>Monthly Rate</u>				
2"		\$10.60	\$11.24	\$11.58	\$12.28	\$12.62
3"		21.20	22.47	23.15	24.54	25.25
4"		42.40	44.94	46.29	49.07	50.50
6"		63.60	67.42	69.45	73.62	75.76
8"		95.40	101.12	104.60	110.41	113.62

Joshua Basin Water District Historical Monthly Charges (3/4" meter, 10 ccf usage)



Joshua Basin Water District

Average Cost per 100 Gallons (3/4" meter, 10 ccf usage)

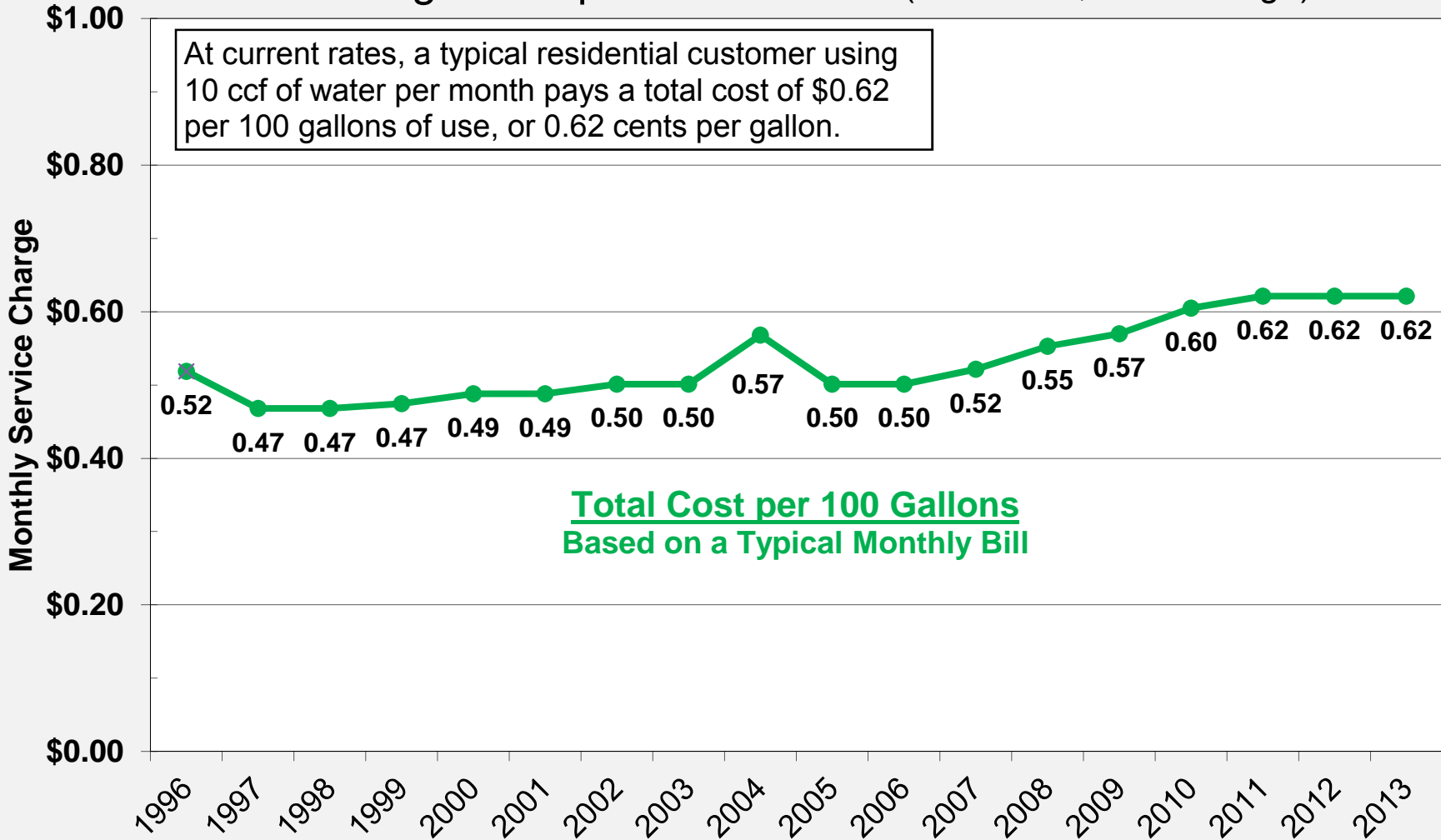
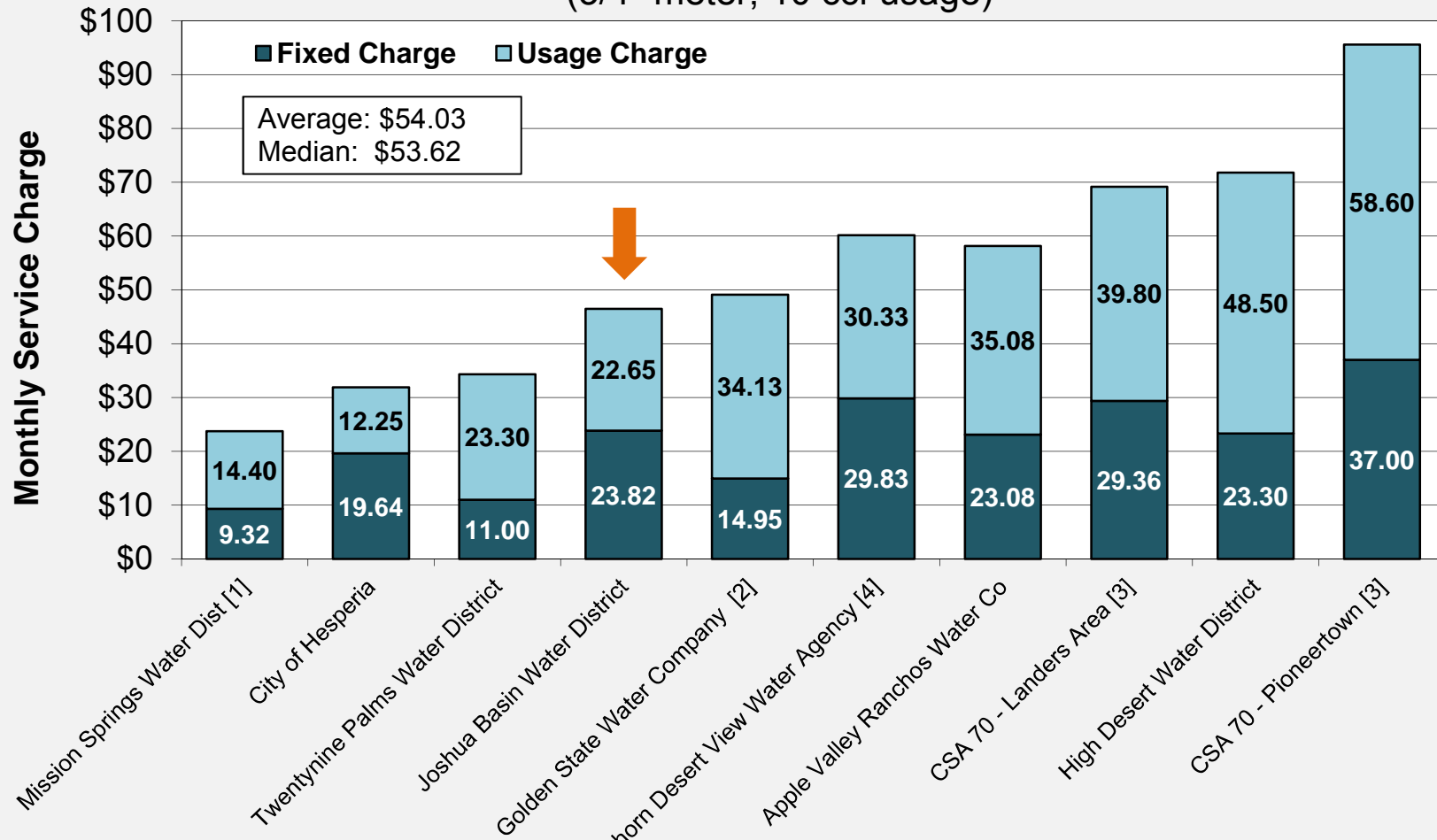


Table 2
 Joshua Basin Water District
 Monthly Residential Water Rate Survey

	Fixed Charges (5/8" or 3/4")	Residential Usage Charges		Monthly Service Charges		
		Tiers	Rate per ccf	5 ccf	10 ccf	15 ccf
Mission Springs Water Dist [1]	9.32	3 tiers	0.99 - 1.83	15.02	23.72	32.42
City of Hesperia	19.64	4 tiers	0.90 - 2.24	24.14	31.89	58.44
Twentynine Palms Water District	11.00	uniform block	2.33	22.65	34.30	45.95
Joshua Basin Water District	23.82	4 tiers	2.14 - 2.75	34.52	46.47	58.42
Golden State Water Company [2]	14.95	3 tiers	2.726 - 3.605	32.01	49.08	66.96
Bighorn Desert View Water Agency	27.50	uniform block	3.00	42.50	57.50	72.50
<i>With debt surcharge (1/2 customers)</i>	32.15	uniform block	3.00	45.44	62.81	80.80
Apple Valley Ranchos Water Co	23.08	3 tiers	2.443 - 3.054	40.79	58.16	76.15
CSA 70 - Landers Area [3]	29.36	3 tiers	3.98 - 5.71	49.26	69.16	89.52
High Desert Water District	23.30	4 tiers	3.59 - 9.08	43.35	71.80	106.25
CSA 70 - Pioneertown Area [3]	37.00	4 tiers	5.85 - 10.87	66.30	95.60	132.15
Average	22.83			37.20	54.03	74.29
Median	23.30			37.66	53.62	71.55

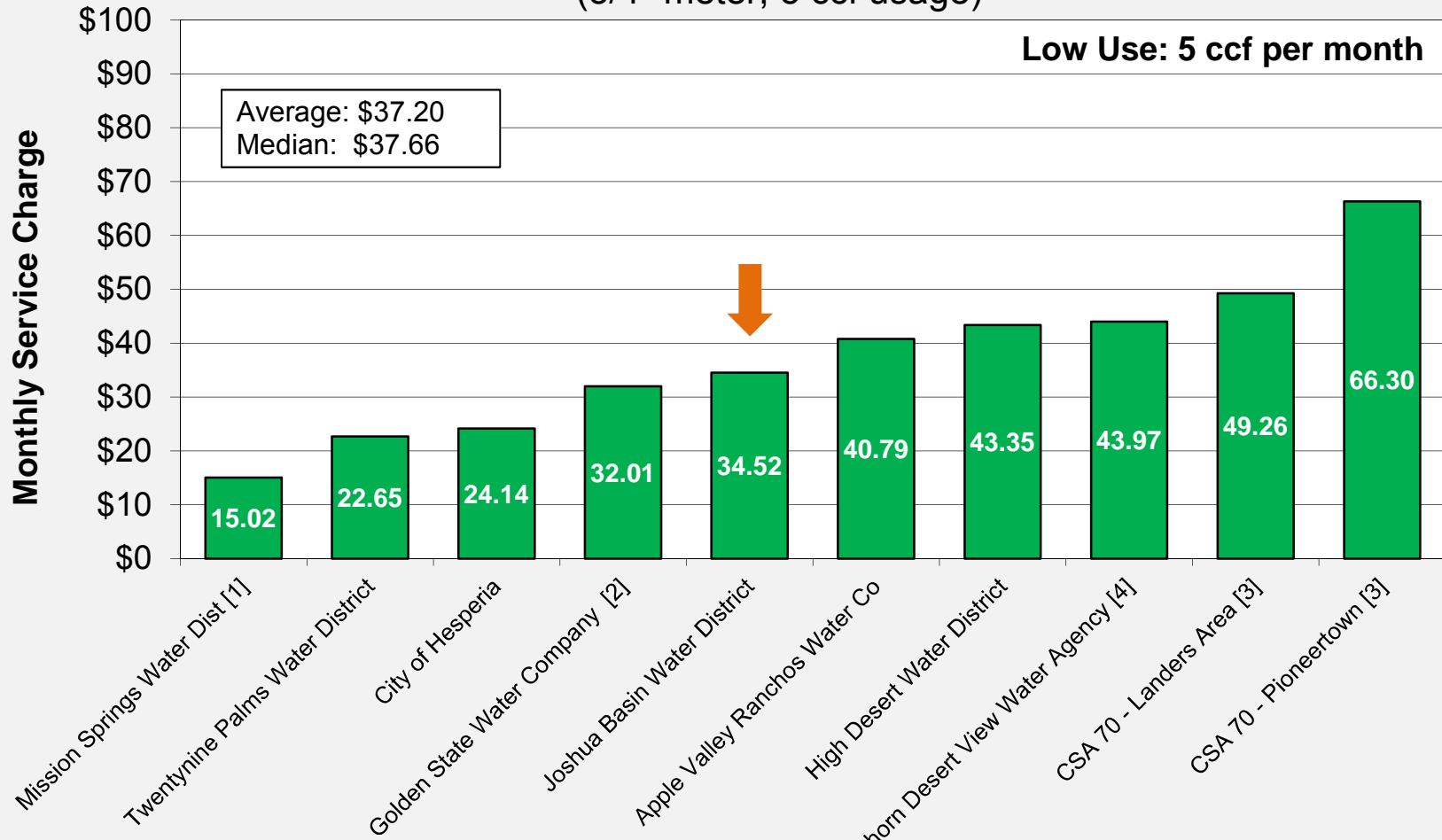
- 1 Serves City of Desert Hot Springs.
 2 Apple Valley / Victorville / Lucerne area.
 3 San Bernardino County Service Area.
 4 Based on average charges for Bighorn Desert Water Agency (not double counted).

Joshua Basin Water District Survey of Monthly Residential Water Rates (3/4" meter, 10 ccf usage)



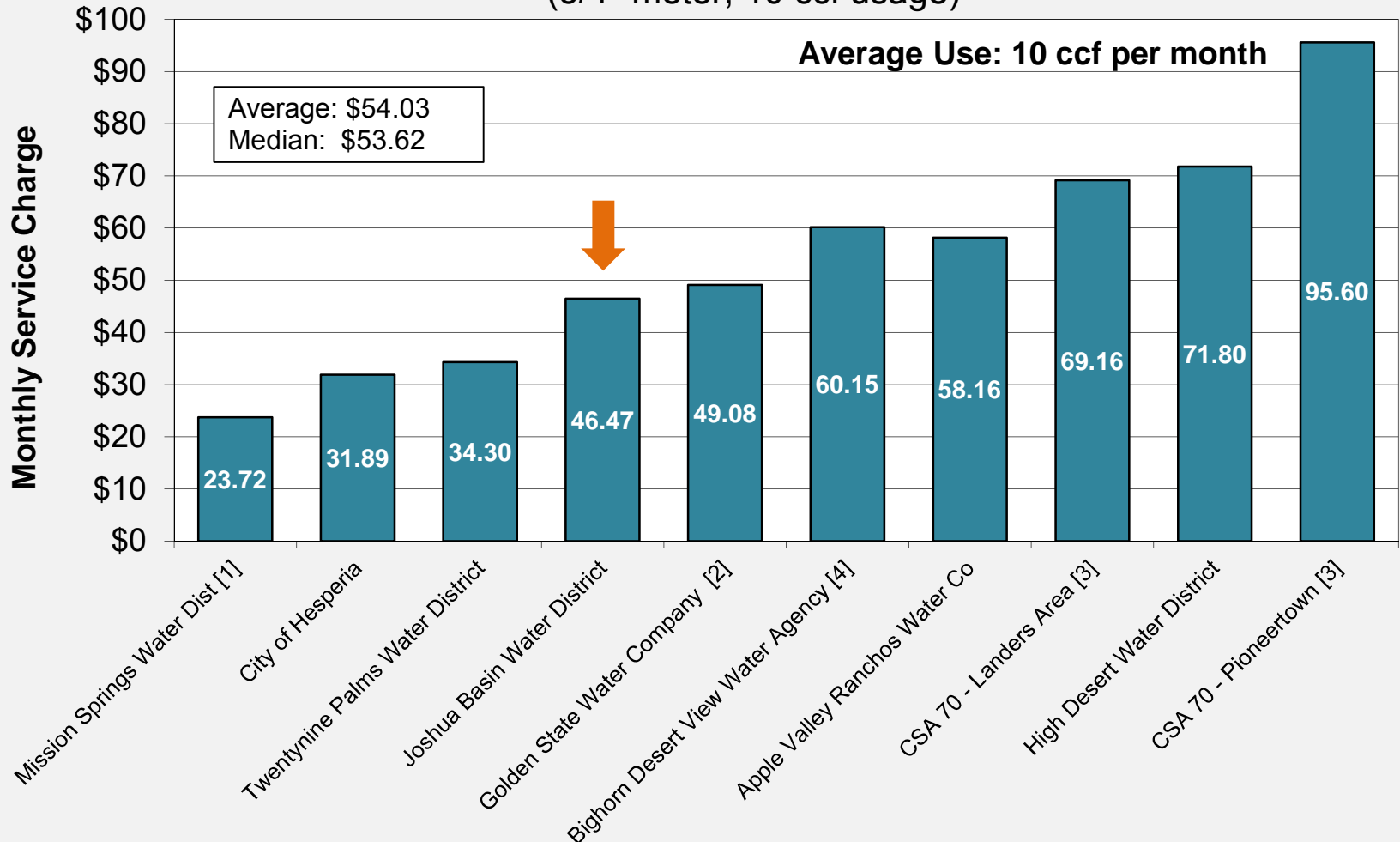
1 Serves City of Desert Hot Springs. 2 Apple Valley / Victorville / Lucerne area. 3 San Bernardino County Service Area.
4 Average charge shown (roughly half of customers pay a \$4.65 monthly surcharge for debt service recovery).

Joshua Basin Water District Survey of Monthly Residential Water Rates (3/4" meter, 5 ccf usage)



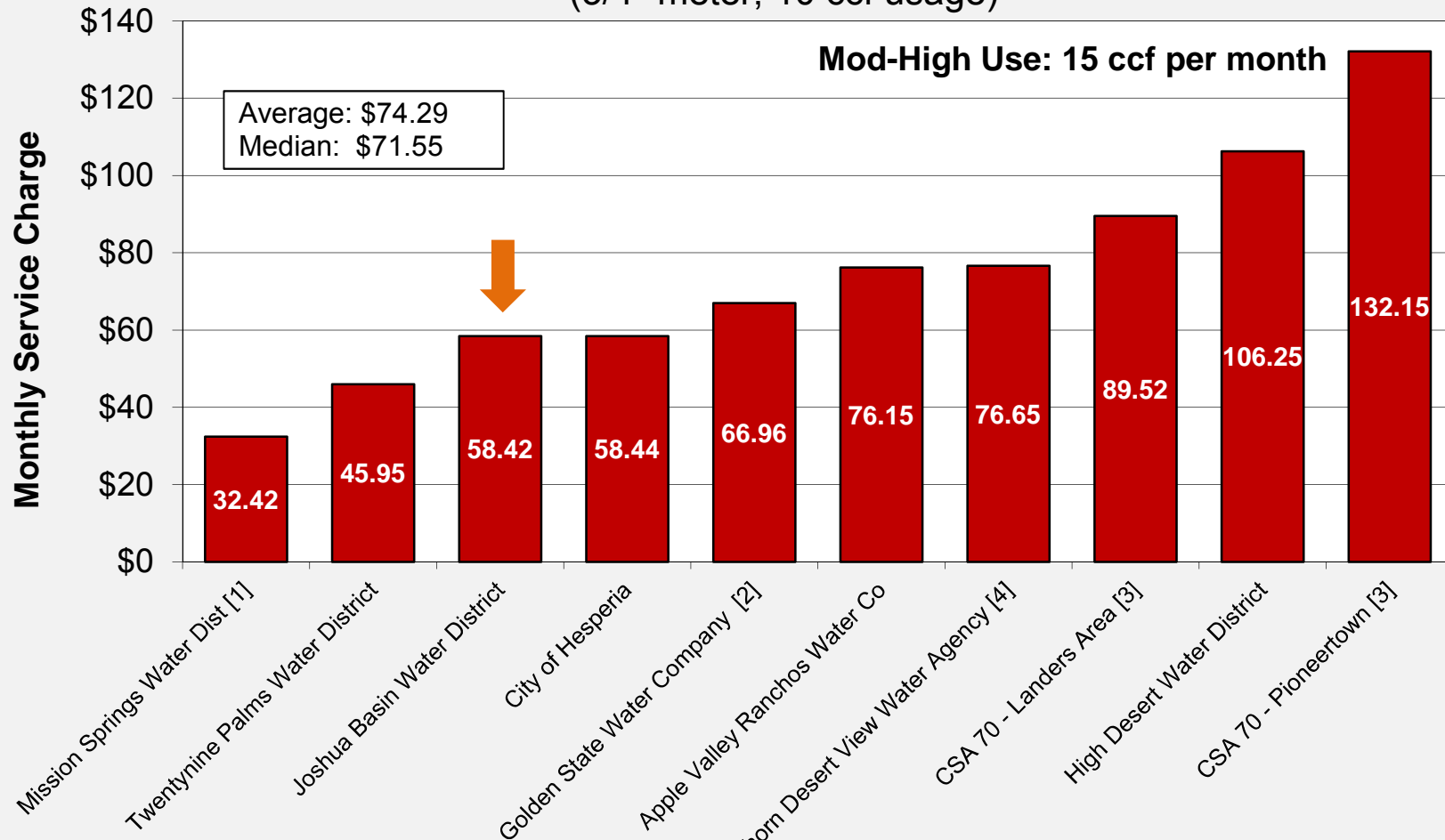
1 Serves City of Desert Hot Springs. 2 Apple Valley / Victorville / Lucerne area. 3 San Bernardino County Service Area.
4 Average charge shown (roughly half of customers pay a \$4.65 monthly surcharge for debt service recovery).

Joshua Basin Water District Survey of Monthly Residential Water Rates (3/4" meter, 10 ccf usage)



1 Serves City of Desert Hot Springs. 2 Apple Valley / Victorville / Lucerne area. 3 San Bernardino County Service Area.
4 Average charge shown (roughly half of customers pay a \$4.65 monthly surcharge for debt service recovery).

Joshua Basin Water District Survey of Monthly Residential Water Rates (3/4" meter, 10 ccf usage)



1 Serves City of Desert Hot Springs. 2 Apple Valley / Victorville / Lucerne area. 3 San Bernardino County Service Area.
4 Average charge shown (roughly half of customers pay a \$4.65 monthly surcharge for debt service recovery).

Table 3
 Joshua Basin Water District
 Water Accounts by Customer Class & Meter Size

Meter Size	Residential		Commercial & Schools	Other	Total
	Single Family	Multi-Family			
3/4"	4,203	33	85	2	4,323
1"	129	26	20		175
1-1/2"	4	16	10		30
2"	3	3	12		18
3"	0	1	14		15
Total	4,339	79	141	2	4,561
Unbilled Pulled Meters					
3/4"	1,147				1,147

Table 4
 Joshua Basin Water District
 Historical Water Production by Month (Acre-Feet)

Month	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13
Jul	192.0	200.6	199.6	205.1	168.1	201.1	223.2	194.3	208.5	191.5	181.4	177.2
Aug	192.9	187.5	164.5	190.5	189.8	204.0	200.2	178.0	176.9	187.3	178.5	172.0
Sep	167.5	153.7	143.7	167.5	168.0	194.1	206.3	153.5	187.1	161.6	152.5	162.0
Oct	143.6	132.3	151.7	129.5	103.5	163.5	159.9	139.6	132.2	122.1	120.3	139.6
Nov	113.4	112.2	105.4	101.8	111.7	132.8	137.5	95.5	109.8	104.8	107.3	109.7
Dec	110.5	90.7	98.9	99.0	103.7	126.2	109.3	113.1	108.2	91.4	94.1	87.8
Jan	100.1	95.0	105.5	87.4	103.7	111.4	90.4	98.4	90.8	93.3	108.9	122.9
Feb	99.9	93.6	95.5	75.5	110.5	136.3	87.4	86.0	78.1	91.2	109.1	90.2
Mar	121.3	100.3	116.7	97.8	105.2	113.9	110.2	113.5	108.9	104.9	111.2	123.7
Apr	131.4	110.9	128.5	117.5	107.8	135.4	125.2	138.5	121.0	122.7	119.1	148.0
May	150.8	147.7	161.2	153.9	156.8	160.3	142.9	160.8	140.1	144.0	147.1	153.3
Jun	176.4	182.2	182.5	223.0	180.5	182.4	171.7	170.5	162.6	156.8	169.3	183.6
Total	1,699.8	1,606.7	1,653.7	1,648.5	1,609.3	1,861.3	1,764.1	1,641.6	1,624.3	1,571.2	1,598.7	1,669.9
Annual Change		-5.5%	2.9%	-0.3%	-2.4%	15.7%	-5.2%	-6.9%	-1.1%	-3.3%	1.8%	4.4%
Avg Month	141.7	133.9	137.8	137.4	134.1	155.1	147.0	136.8	135.4	130.9	133.2	139.2
Max Month	192.9	200.6	199.6	223.0	189.8	204.0	223.2	194.3	208.5	191.5	181.4	183.6
Min Month	99.9	90.7	95.5	75.5	103.5	111.4	87.4	86.0	78.1	91.2	94.1	87.8
Max / Avg	1.36	1.50	1.45	1.62	1.42	1.32	1.52	1.42	1.54	1.46	1.36	1.32
Jul-Dec %	54%	55%	52%	54%	52%	55%	59%	53%	57%	55%	52%	51%

Joshua Basin Water District

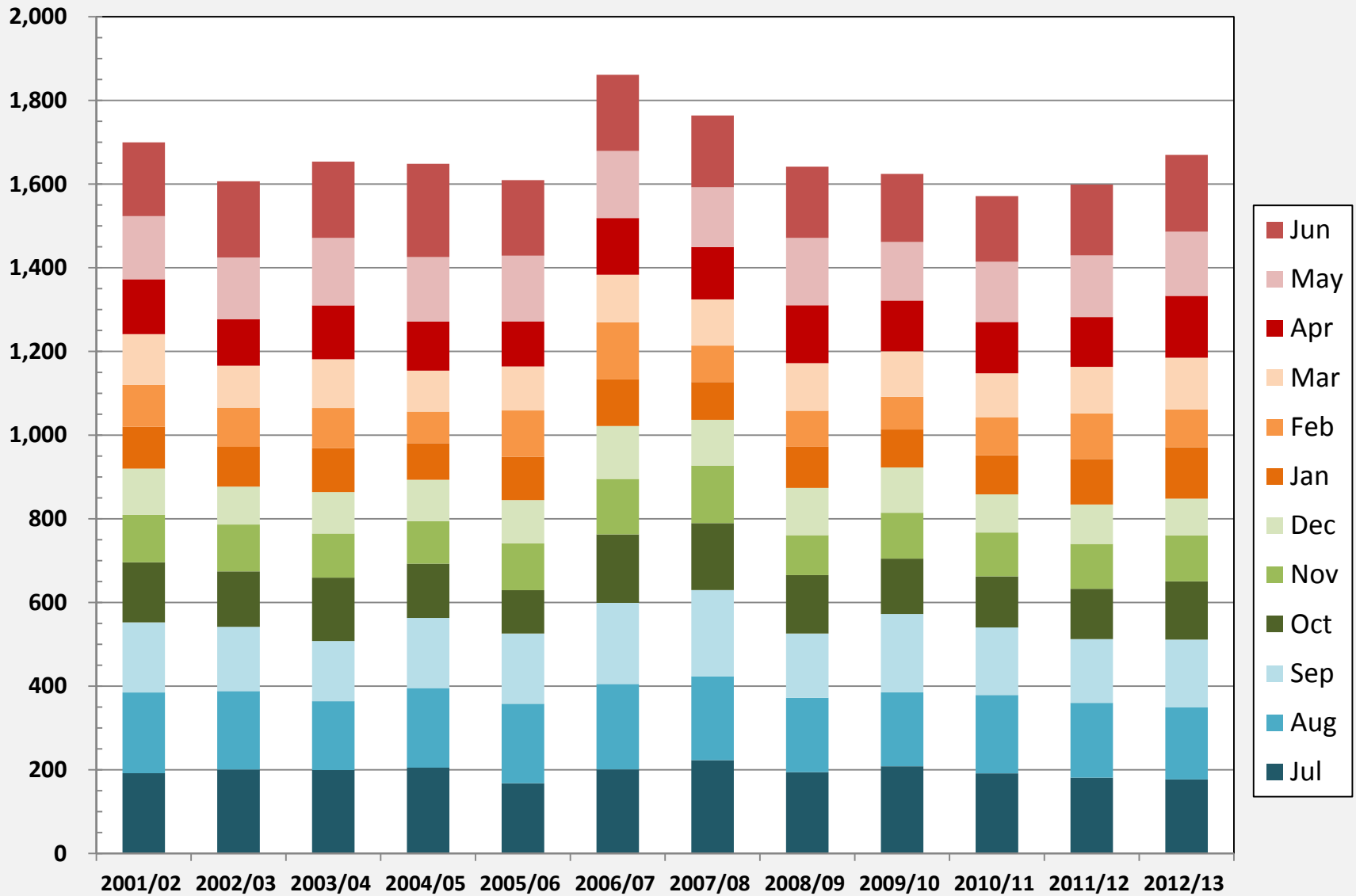


Table 5
Joshua Basin Water District
Fund Balances

Fund	Invested in	June 30, 2012 Balance	June 30, 2013 Balance
Operating/Capital Reserves			
General Operating Fund		\$145,086	\$91,523
Credit Card Account		57,362	62,479
Investment Account	LAIF	1,066,343	57,114
Equipment/Technology Reserve (1)	LAIF	256,211	361,807
Well/Booster Pump Reserve (1)	LAIF	<u>0</u>	<u>50,000</u>
Subtotal		1,525,002	622,923
Other District Reserves			
Petty Cash		600	600
Change Drawer Fund		1,500	1,500
Payroll Fund		5,000	5,000
Emergency Reserve Fund (2)	LAIF	1,000,000	1,000,000
Opportunity Fund	LAIF	<u>2,000,000</u>	<u>173,235</u>
Subtotal		3,007,100	1,180,335
Subtotal: Beginning Balance for Financial Projections			1,803,258
Restricted Funds - Legally			
Consumer & Projects Deposits	LAIF	224,142	242,912
Water Capacity Fees (4)	LAIF	(95,329)	23,117
Sewer Capacity Fees	LAIF	112,898	288,145
CMM Reserve Fund	LAIF	333,468	360,367
CMM Redemption Fund	LAIF	273,294	244,355
CMM Prepayments Fund	LAIF	<u>2,962</u>	<u>2,980</u>
Subtotal		851,435	1,161,876
Other			
Hi-Desert Medical Center (WWTP)	LAIF	0	595,909
Total		5,383,537	3,561,043

1 - Restricted for replacement of assets for in these categories only. Well/Booster Pump Reserve was established in 2012/13 with annual funding of \$50,000. Annual funding for E/T Reserve is \$100,000 per year.

2 - Emergency Fund is restricted for unplanned/unbudgeted emergencies or disasters.

3 - Opportunity Fund is restricted for use if an opportunity arises that the Board wants to take advantage of for future items not planned or anticipated.

4 - Water capacity fund went negative in FY2012 because the District completed more applicable projects than funding received.

Source: District Fund Balance Reports.

Table 6
 Joshua Basin Water District
 Grant Funding & Reimbursements

Grant/Reimbursement	Total Grant	Reimbursement (for Prior Exps)	FY 2013/14 Project Funding
DWR IRWM Prop 84 Grant	\$3,000,000	\$1,929,000	\$1,071,000
CDPH Prop 84 Grant	3,200,000	0	3,200,000
MWA Local Grant	1,000,000	1,000,000	0
MWA IDM Reserve Excess Balance	599,000	599,000	0
Total	7,799,000	3,528,000	4,271,000

Is the \$101K Grant Retention Receivable also a cash reimbursement for prior project expenditures?

Table 7
 Joshua Basin Water District
 Outstanding Debt

Year Ending June 30	Debt Funded by District Payments				Assessment Bonds
	2006 IDM GO Refunding Bonds (MWA)				1996 Copper Mt. Mesa AD Bonds
	Upcoming Yr IDM Debt Svc	Est. Local Agency %	District Share %	District Payment	
2014	3,254,750	25%	27%	219,696	248,002
2015	3,253,000	25%	27%	219,578	247,817
2016	3,250,750	25%	27%	219,426	248,430
2017	3,257,750	25%	27%	219,898	247,840
2018	3,253,250	25%	27%	219,594	248,047
2019	3,257,500	25%	27%	219,881	248,030
2020	3,259,750	25%	27%	220,033	247,787
2021	2,304,750	25%	27%	155,571	247,320
2022					247,605
2023					246,642
2024					246,432
2025					246,930
2026					246,135
2027					246,047
2028					245,645
2029					245,905
2030					245,805
2031					245,345
2032					244,525
2033					244,322
2034					244,692
2035					244,612
2036					244,230
Total				3,230,567	7,408,502

Table 8
 Joshua Basin Water District
 Debt Service Estimates, Bank Loan

	10-Year Bank Loan	15-Year Bank Loan	20-Year Bank Loan
Project Funding Target	\$3,000,000	\$3,000,000	\$3,000,000
Loan Amount			
Project Funding	\$3,000,000	\$3,000,000	\$3,000,000
Issuance Costs (est.)	<u>75,000</u>	<u>75,000</u>	<u>75,000</u>
Total Loan Amount	3,075,000	3,075,000	3,075,000
Loan Terms			
Term (years)	10	15	20
Interest Rate (est.)	3.50%	4.00%	4.50%
Annual Debt Service	\$370,000	\$277,000	\$236,000
Total Payments Over Term of Loan	\$3,700,000	\$4,155,000	\$4,720,000
Debt Service per \$1 Million of Project Funding	\$123,333	\$92,333	\$78,667

Table 9
 Joshua Basin Water District
 Big Picture Financial Challenge

	Based on FY 2013/14 Budget	Notes	Rough Est. Required Rate Increases
Recurring Annual Revenues			
Rate Revenues	\$2,750,000		
Standby Charge Revenues (Net)	1,036,000		
Property Taxes	396,000		
Other	141,000		
Est. Capacity & Mtr Install Fees	0	\$80,000 (20 EDUs)	
Potential Future Wholesale Water Sales	0	???	
Total	4,323,000		
Recurring Annual Expenses			
Operating & Maintenance Expenses	3,650,000		
Morongo Pipeline Pymts to MWA	220,000	final maturity in 8 years	
Total	3,870,000		
Annual Net Discretionary Funding Available	453,000	excludes Basic Facility Fees	
Additional Ongoing Funding Needs			
Water Purchases from MWA	\$250,000	for about 500 AF per year	more in future
Tank Maintenance (200K in budget, add'l \$50k/yr possibly more)	50,000	rough est.	
Well/Booster Reserve (Avg Annual Expense)	50,000		
Equip/Tech Reserve (Avg Annual Expense)	100,000		
Subtotal	200,000		
Future Annual Avg Cost to Replace ~7,500' of Pipelines	500,000		
Total	950,000		
Less Available Annual Funding	(453,000)		
Less Potential Connection/Capacity Fees	(40,000)	for roughly 10 new EDUs	
Remaining Annual Funding Needs	457,000		
As a % of FY14 Water Rate Revenues	17%	phased in over 5 years	3%+ per year
Ongoing Cost Inflation	3%+ per year	rates account for 2/3 of revs	3%+ per year
One-Time Funding Needs			
Replace 70,000 ft. Substandard 4" Pipelines	5,000,000		
<i>If funded by \$2M reserve drawdown + \$3M 15-Yr Loan</i>			
Annual debt service for a \$3M 20-yr loan:	240,000		
As a % of FY14 Rate Revenues	9%	phased in over 5 years	2% per year
Other Potential			
Well 14 Refurbishment (not since 1983, 30 years)	?		
Other Infrastructure Rehab/Refurbish	?		
Additional Regulatory Requirements	?		
Total	?		unknown
Rough Est. of Annual Rate Increases for Next 5 Years			8.5% per year
Current Monthly Bill With 10 ccf Use	\$46.47		
Est. Monthly Impact per Year of an 8.5% Rate Increase	4.18		
Est. 5-Year Compounded Monthly Impact of five 8.5% increases	23.00		
Potential New Revenues			
If Pulled Meters Pay Minimum Fixed Service Charge	\$327,858.48	12%	-2%+ per year

Table 10

Joshua Basin Water District - Cash Flow Projections

DRAFT

	Budget	Projected									Esc Factor
	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	
1 Effective Date of Rate Adjustment	01/01/14	01/01/15	01/01/16	01/01/17	01/01/18	01/01/19	01/01/20	01/01/21	01/01/22	01/01/23	
2 Rate Adjustment %	8.5%	8.5%	8.5%	8.5%	8.5%	6%	6%	6%	5%	5%	
3 Growth: New EDUs	-	10	10	15	15	20	20	20	20	20	
4 Pulled Meters to Active Accts EDUs	-	-	-	-	-	-	-	-	-	-	
5 Growth in Billable EDUs %	-	0.2%	0.2%	0.3%	0.3%	0.4%	0.4%	0.4%	0.4%	0.4%	
6 Change in Annual Water Consumption	-	-1.7%	-1.7%	-1.7%	-1.7%	-1.7%	-1.2%	-1.2%	-1.2%	-1.0%	-0.20
7 Basic Facility Fee	\$3,090	\$3,150	\$3,210	\$3,270	\$3,340	\$3,410	\$3,480	\$3,550	\$3,620	\$3,690	2.0%
8 Meter Installation Charge (Non-Tract)	\$890	\$910	\$930	\$950	\$970	\$990	\$1,010	\$1,030	\$1,050	\$1,070	2.0%
9 Water Purchases from MWA (AF)	0	500	500	500	500	500	500	500	800	800	
10 MWA Rate per AF	\$450	\$473	\$497	\$522	\$548	\$575	\$604	\$634	\$666	\$699	5.0%
11 Interest Rate	-	1.0%	1.5%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	
12 Annual Cost Escalator	-	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	
13 Beginning Fund Reserves	\$1,803,000	\$5,785,000	\$5,842,000	\$3,876,000	\$3,906,000	\$3,961,000	\$4,034,000	\$4,069,000	\$4,134,000	\$4,190,000	
14 REVENUES											
15 Metered Water Sales	1,426,599	1,481,000	1,607,000	1,744,000	1,892,000	2,030,000	2,152,000	2,281,000	2,408,000	2,528,000	
16 Fixed Monthly Charges	1,323,623	1,381,000	1,502,000	1,634,000	1,779,000	1,914,000	2,038,000	2,169,000	2,298,000	2,423,000	
17 Potential Revenues from Pulled Meters	0	0	0	0	0	0	0	0	0	0	
18 Standby Revenue (Net of Uncollectable)	1,036,071	1,036,000	1,036,000	1,035,000	1,034,000	1,033,000	1,032,000	1,031,000	1,030,000	1,029,000	
19 Private Fire Svc & Special Services	131,881	130,000	133,000	136,000	139,000	142,000	145,000	148,000	151,000	154,000	2.0%
20 Water Capacity & Meter Install Fees	0	41,000	41,000	63,000	65,000	88,000	90,000	92,000	93,000	95,000	
21 Interest Earnings	9,040	58,000	88,000	78,000	78,000	79,000	81,000	81,000	83,000	84,000	
22 Property Taxes	396,283	404,000	412,000	420,000	428,000	437,000	446,000	455,000	464,000	473,000	2.0%
23 Total Revenues	4,323,497	4,531,000	4,819,000	5,110,000	5,415,000	5,723,000	5,984,000	6,257,000	6,527,000	6,786,000	
24 Grants/Reimbursements	3,528,000										
25 New Grant Proceeds	4,271,000										
26 Potential Debt Proceeds		3,000,000									
27 EXPENSES											
28 Operating & Maintenance											
29 Production	1,072,842	916,000	953,000	991,000	1,031,000	1,072,000	1,115,000	1,160,000	1,206,000	1,254,000	
30 Distribution	629,760	655,000	681,000	708,000	736,000	765,000	796,000	828,000	861,000	895,000	
31 Customer Service	545,868	568,000	591,000	615,000	640,000	666,000	693,000	721,000	750,000	780,000	
32 Administration	564,284	587,000	610,000	634,000	659,000	685,000	712,000	740,000	770,000	801,000	
33 Engineering	188,034	196,000	204,000	212,000	220,000	229,000	238,000	248,000	258,000	268,000	
34 Finance	426,502	444,000	462,000	480,000	499,000	519,000	540,000	562,000	584,000	607,000	
35 Personnel & Legal	222,326	231,000	240,000	250,000	260,000	270,000	281,000	292,000	304,000	316,000	
36 Subtotal	3,649,616	3,597,000	3,741,000	3,890,000	4,045,000	4,206,000	4,375,000	4,551,000	4,733,000	4,921,000	
37 Debt Service (assumes 20-yr loan)	0	120,000	240,000	240,000	240,000	240,000	240,000	240,000	240,000	240,000	
38 Non-Operating											
39 Morongo Basin Pipeline Pymts to MWA	219,696	220,000	220,000	219,000	220,000	220,000	220,000	156,000	0	0	
40 Water Purchases from MWA	0	237,000	249,000	261,000	274,000	288,000	302,000	317,000	533,000	559,000	
41 Tank, Well & Pump Maint/Improvements	0	250,000	260,000	270,000	281,000	292,000	304,000	316,000	329,000	342,000	
42 Equipment/Tech/Vehicle Replacement	0	50,000	75,000	100,000	100,000	104,000	108,000	112,000	116,000	121,000	
43 Pipeline Replacement (7,500' / yr)	0	0	0	100,000	200,000	300,000	400,000	500,000	520,000	541,000	
44 Replace 75,000' of Substandard 4" Pipe	0	3,000,000	2,000,000	0	0	0	0	0	0	0	
45 Grant-Funded Recharge Projects	4,271,000	0	0	0	0	0	0	0	0	0	
46 Subtotal	4,490,696	3,757,000	2,804,000	950,000	1,075,000	1,204,000	1,334,000	1,401,000	1,498,000	1,563,000	
47 Total Expenses	8,140,312	7,474,000	6,785,000	5,080,000	5,360,000	5,650,000	5,949,000	6,192,000	6,471,000	6,724,000	
48 Revenues Less Expenses	3,982,185	57,000	(1,966,000)	30,000	55,000	73,000	35,000	65,000	56,000	62,000	
49 Ending Fund Reserves	5,785,185	5,842,000	3,876,000	3,906,000	3,961,000	4,034,000	4,069,000	4,134,000	4,190,000	4,252,000	
50 Min Fund Reserve Target (30% O&M + \$2M)	3,094,885	3,079,100	3,122,300	3,167,000	3,213,500	3,261,800	3,312,500	3,365,300	3,419,900	3,476,300	

Table A-1
 Joshua Basin Water District
 Single Family Residential Consumption Block Analysis 2012/13

DRAFT
 Median Bi-Monthly Use: 6.5 hcf
 Average Bi-Monthly Use: 10.6 hcf

Bi-Monthly Use (hcf)	Number of Bills				Water Use (hcf)		Use Through Break	
	In Block	% of Total	Cumulative	Cumulative %	In Block	% of Ttl	Use (hcf)	% of Ttl
0	650	1.4%	650	1.4%	0	0.0%	0	0.0%
1	3,604	7.7%	4,254	9.1%	3,604	0.7%	46,037	9.3%
2	3,929	8.4%	8,183	17.5%	7,858	1.6%	88,470	17.9%
3	3,980	8.5%	12,163	26.1%	11,940	2.4%	126,974	25.7%
4	3,777	8.1%	15,940	34.1%	15,108	3.1%	161,498	32.6%
5	3,694	7.9%	19,634	42.1%	18,470	3.7%	192,245	38.9%
6	3,294	7.1%	22,928	49.1%	19,764	4.0%	219,298	44.3%
7	2,854	6.1%	25,782	55.2%	19,978	4.0%	243,057	49.1%
8	2,498	5.4%	28,280	60.6%	19,984	4.0%	263,962	53.4%
9	2,092	4.5%	30,372	65.1%	18,828	3.8%	282,369	57.1%
10	1,799	3.9%	32,171	68.9%	17,990	3.6%	298,684	60.4%
11	1,593	3.4%	33,764	72.3%	17,523	3.5%	313,200	63.3%
12	1,345	2.9%	35,109	75.2%	16,140	3.3%	326,123	65.9%
13	1,111	2.4%	36,220	77.6%	14,443	2.9%	337,701	68.3%
14	998	2.1%	37,218	79.7%	13,972	2.8%	348,168	70.4%
15	900	1.9%	38,118	81.6%	13,500	2.7%	357,637	72.3%
16	780	1.7%	38,898	83.3%	12,480	2.5%	366,206	74.0%
17	682	1.5%	39,580	84.8%	11,594	2.3%	373,995	75.6%
18	597	1.3%	40,177	86.1%	10,746	2.2%	381,102	77.0%
19	521	1.1%	40,698	87.2%	9,899	2.0%	387,612	78.3%
20	462	1.0%	41,160	88.2%	9,240	1.9%	393,601	79.6%
21	423	0.9%	41,583	89.1%	8,883	1.8%	399,128	80.7%
22	355	0.8%	41,938	89.8%	7,810	1.6%	404,232	81.7%
23	334	0.7%	42,272	90.5%	7,682	1.6%	408,981	82.7%
24	316	0.7%	42,588	91.2%	7,584	1.5%	413,396	83.6%
25	315	0.7%	42,903	91.9%	7,875	1.6%	417,495	84.4%
26	251	0.5%	43,154	92.4%	6,526	1.3%	421,279	85.1%
27	235	0.5%	43,389	92.9%	6,345	1.3%	424,812	85.9%
28	247	0.5%	43,636	93.5%	6,916	1.4%	428,110	86.5%
29	211	0.5%	43,847	93.9%	6,119	1.2%	431,161	87.1%
30	185	0.4%	44,032	94.3%	5,550	1.1%	434,001	87.7%
31	167	0.4%	44,199	94.7%	5,177	1.0%	436,656	88.3%
32	152	0.3%	44,351	95.0%	4,864	1.0%	439,144	88.8%
33	130	0.3%	44,481	95.3%	4,290	0.9%	441,480	89.2%
34	133	0.3%	44,614	95.6%	4,522	0.9%	443,686	89.7%
35	100	0.2%	44,714	95.8%	3,500	0.7%	445,759	90.1%
36	110	0.2%	44,824	96.0%	3,960	0.8%	447,732	90.5%
37	102	0.2%	44,926	96.2%	3,774	0.8%	449,595	90.9%
38	98	0.2%	45,024	96.4%	3,724	0.8%	451,356	91.2%
39	82	0.2%	45,106	96.6%	3,198	0.6%	453,019	91.6%
40	59	0.1%	45,165	96.7%	2,360	0.5%	454,600	91.9%
41	78	0.2%	45,243	96.9%	3,198	0.6%	456,122	92.2%
42	83	0.2%	45,326	97.1%	3,486	0.7%	457,566	92.5%
43	71	0.2%	45,397	97.2%	3,053	0.6%	458,927	92.8%
44	58	0.1%	45,455	97.4%	2,552	0.5%	460,217	93.0%
45	72	0.2%	45,527	97.5%	3,240	0.7%	461,449	93.3%
46	57	0.1%	45,584	97.6%	2,622	0.5%	462,609	93.5%
47	52	0.1%	45,636	97.7%	2,444	0.5%	463,712	93.7%
48	58	0.1%	45,694	97.9%	2,784	0.6%	464,763	93.9%
49	46	0.1%	45,740	98.0%	2,254	0.5%	465,756	94.1%
50	29	0.1%	45,769	98.0%	1,450	0.3%	466,703	94.3%
51-75	559	1.2%	46,328	99.2%	33,798	6.8%	481,526	97.3%
76-100	194	0.4%	46,522	99.6%	16,623	3.4%	487,724	98.6%
101-200	146	0.3%	46,668	100.0%	19,090	3.9%	494,114	99.9%
201+	19	0.0%	46,687	100.0%	4,438	0.9%	494,752	100.0%
Total	46,687	100.0%			494,752	100.0%		

Joshua Basin Water District

Distribution of Monthly Single Family Residential Water Bills 2012/13

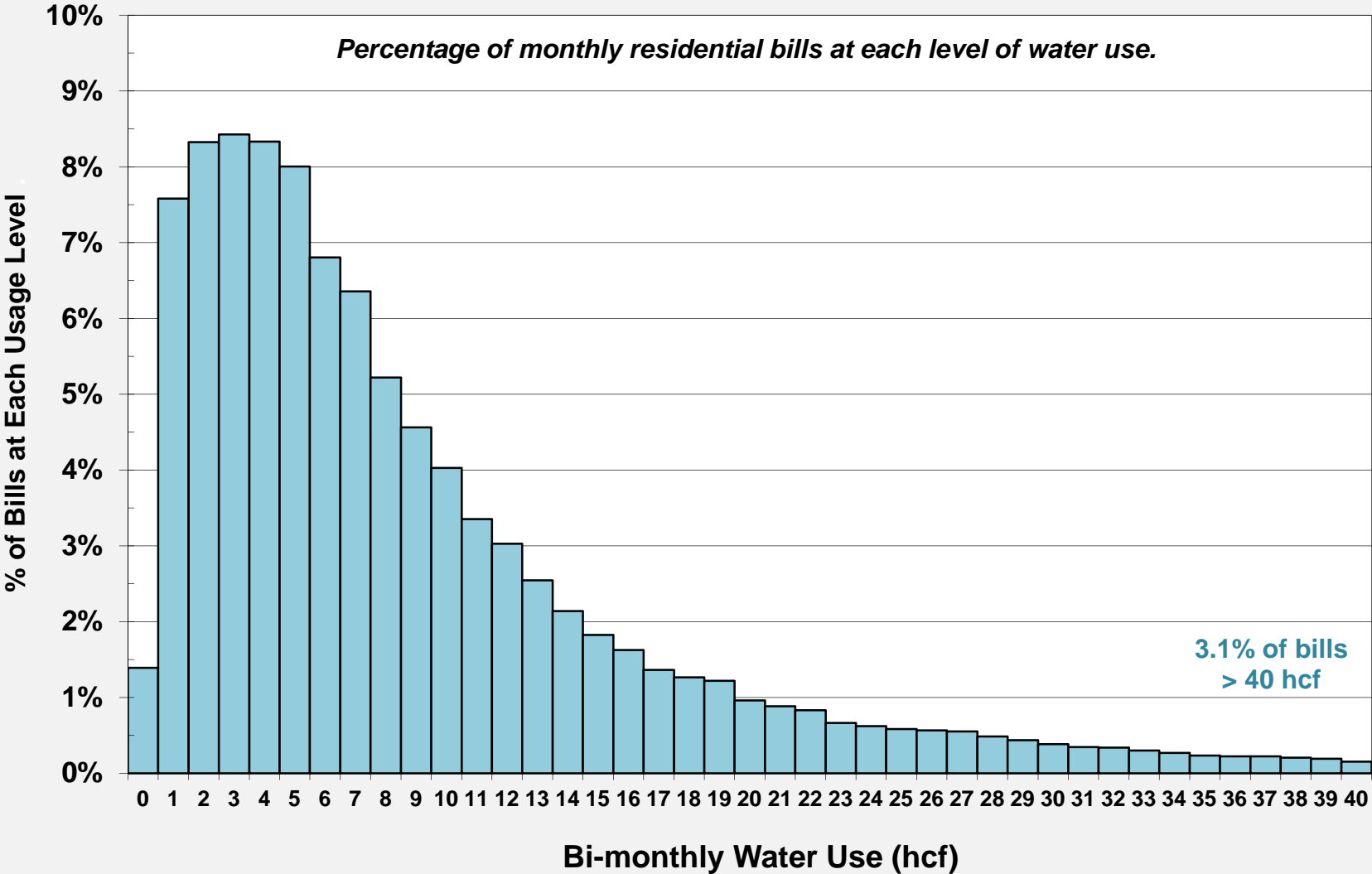


Table A-2
 Joshua Basin Water District
 Residential & Commercial Consumption By Current Tier Breakpoints

DRAFT

Tier	Bi-Monthly Use (hcf)	Number of Bills Ending		Water Consumption (hcf)		Rate	Total Revenues
		in Tier	% of Total	in Tier	% of Total		
RESIDENTIAL							
2011/12							
Tier 1	0 - 5	19,627	42.1%	192,465	39.3%	\$2.14	\$411,875
Tier 2	6 - 13	16,748	35.9%	200,338	40.9%	\$2.39	\$478,808
Tier 3	21 - 40	8,819	18.9%	59,851	12.2%	\$2.57	\$153,817
Tier 4	Over 40	<u>1,460</u>	<u>3.1%</u>	<u>37,424</u>	<u>7.6%</u>	\$2.75	<u>\$102,916</u>
Total		46,654	100.0%	490,078	100.0%		\$1,147,416
2012/13							
Tier 1	0 - 5	19,634	42.1%	192,080	38.8%	\$2.14	\$411,051
Tier 2	6 - 13	16,586	35.5%	200,861	40.6%	\$2.39	\$480,058
Tier 3	21 - 40	8,945	19.2%	60,339	12.2%	\$2.57	\$155,071
Tier 4	Over 40	<u>1,522</u>	<u>3.3%</u>	<u>41,472</u>	<u>8.4%</u>	\$2.75	<u>\$114,048</u>
Total		46,687	100.0%	494,752	100.0%		\$1,160,228
COMMERCIAL							
2011/12							
All Use		912	100.0%	98,639	100.0%	\$2.39	\$235,747
2012/13							
All Use		912	100.0%	88,724	100.0%	\$2.39	\$212,050
TOTAL							
2011/12							
All Use		47,566		588,717			\$1,383,163
2012/13							
All Use		47,599		583,476			\$1,372,279