

C l a r k C o u n t y N e v a d a



BIG BEND
Water District

Citizens Advisory Committee

Rate Scenarios

August 29, 2017

MEETING AGENDA



Approval of Minutes

Requested Information

Rate Scenarios

COMMITTEE INFORMATION REQUESTS



Operating Costs (History)

Fort Mohave Fund loans

Fluoridation costs

Monthly Bill Comparisons

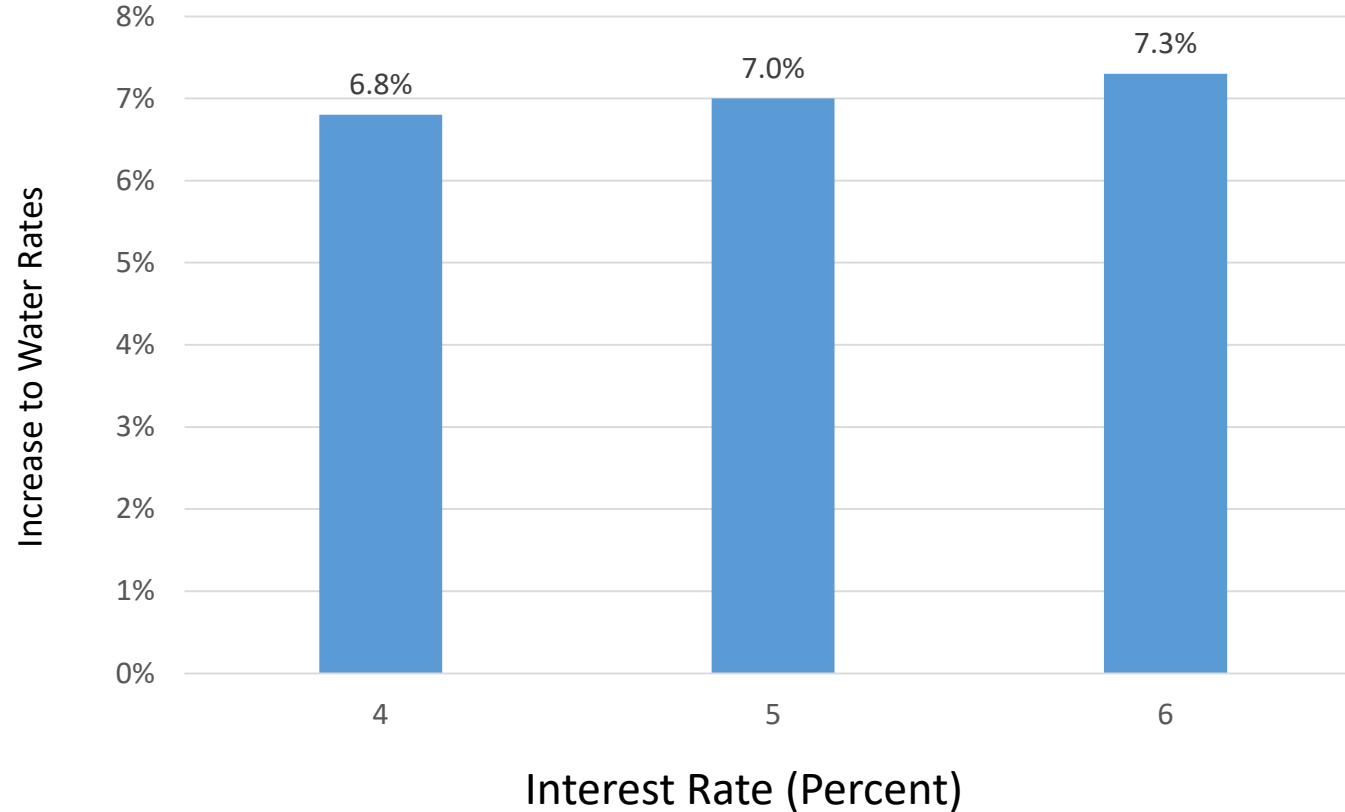
Interest Rate Information

MONTHLY BILL COMPARISONS

Service Area	Single Family Residential (7,000 gallons monthly use)	Elementary School (536,000 gallons monthly use)
BBWD	\$ 26.00	\$ 1,498.20
LVVWD	35.74	2,319.46
Bullhead City	28.32	1,920.68
Searchlight	18.99	1,971.47
City of Henderson	38.79	1,939.03
Kyle Canyon	81.30	2,927.04

INTEREST RATE INFORMATION

A percentage change in Interest Rates does not equate to a similar increase to water rates.



RATE SCENARIOS

RATE MODEL VARIATIONS

FUNDING CAPITAL:

**Pay-As-You-Go
vs.
Issuing Debt**

IMPLEMENTATION TIMEFRAME:

**4-Year Rate Phase In
with CPI Increases after**

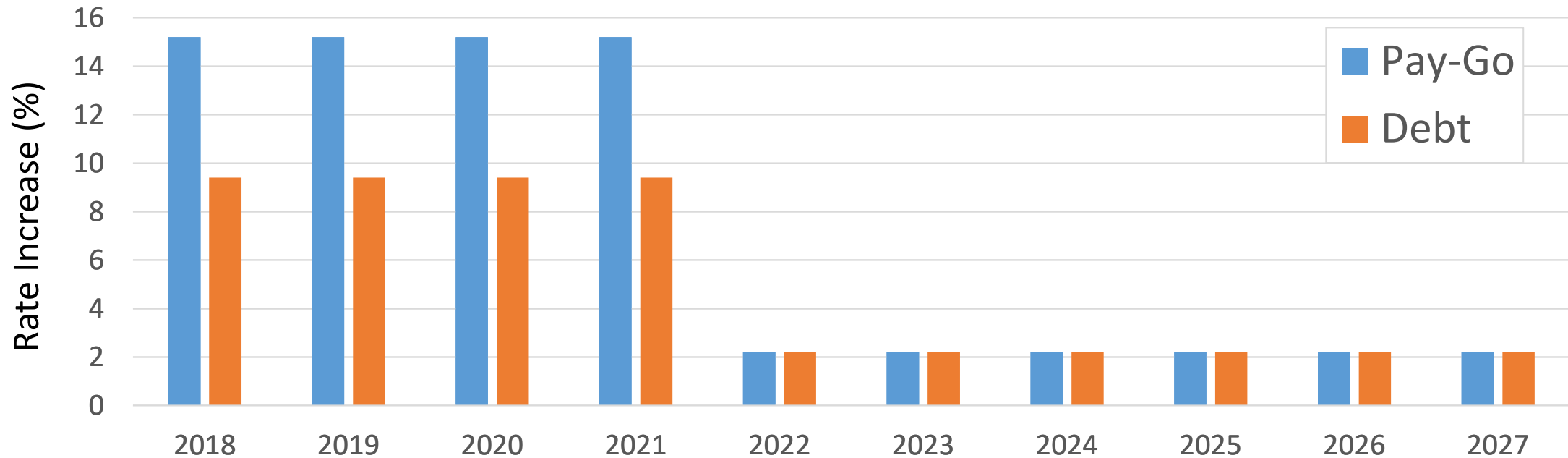
OTHER FUNDING SOURCES:

**\$800,000 versus
\$5.8 million**

FUNDING CAPITAL: ISSUING DEBT VS. PAY-GO

SCENARIOS 1A & 1B

Percentage Increase to Water Rates

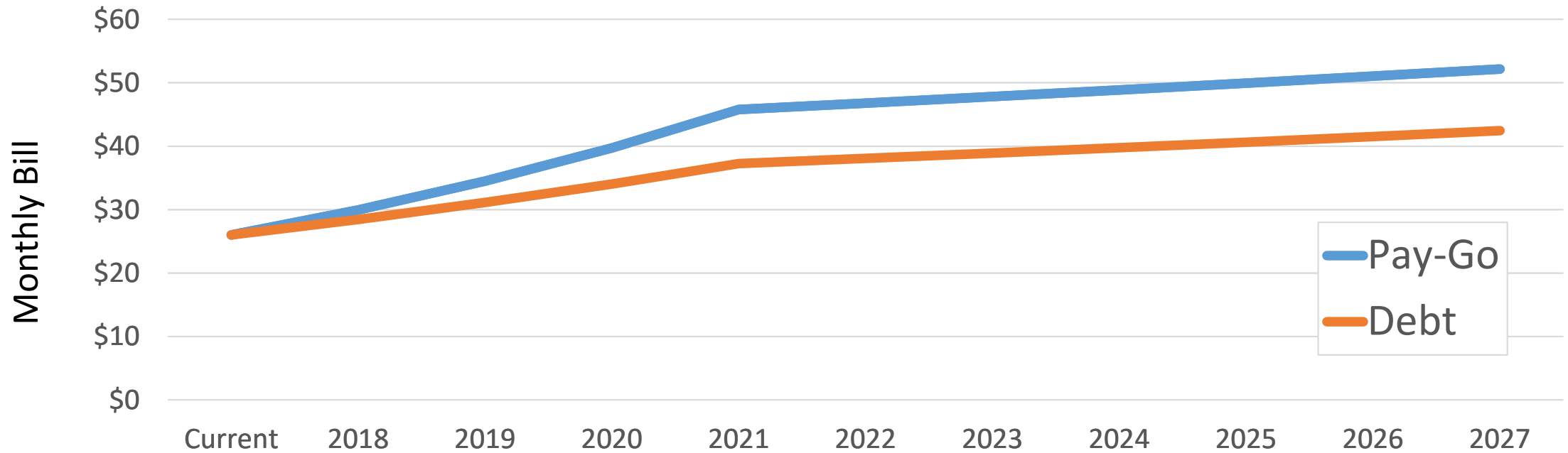


Issuing debt reduces rate impacts by approximately one-third.

FUNDING CAPITAL: ISSUING DEBT VS. PAY-GO

SCENARIOS 1A & 1B

Single-Family Residential Monthly Water Bill



Scenario assumes \$800,000 of additional funding sources secured

RATE MODEL VARIATIONS

FUNDING CAPITAL:

**Pay-As-You-Go vs.
Issuing Debt**

IMPLEMENTATION TIMEFRAME:

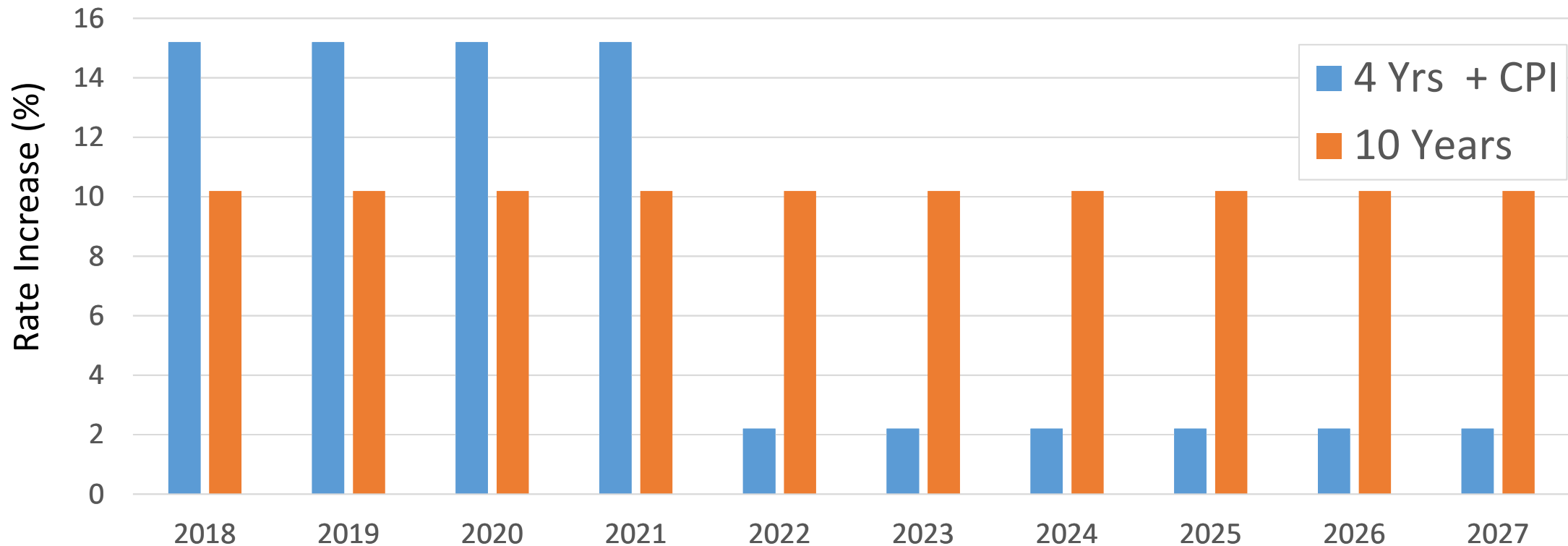
**4-Year Rate Phase In
with CPI Increases after**

**Equal increases for
10 years**

IMPLEMENTATION: 4 YEARS + CPI VS. 10 YEARS EQUAL

PAY-GO EXAMPLE – SCENARIOS 1A & 3A

Percentage Increase to Water Rates

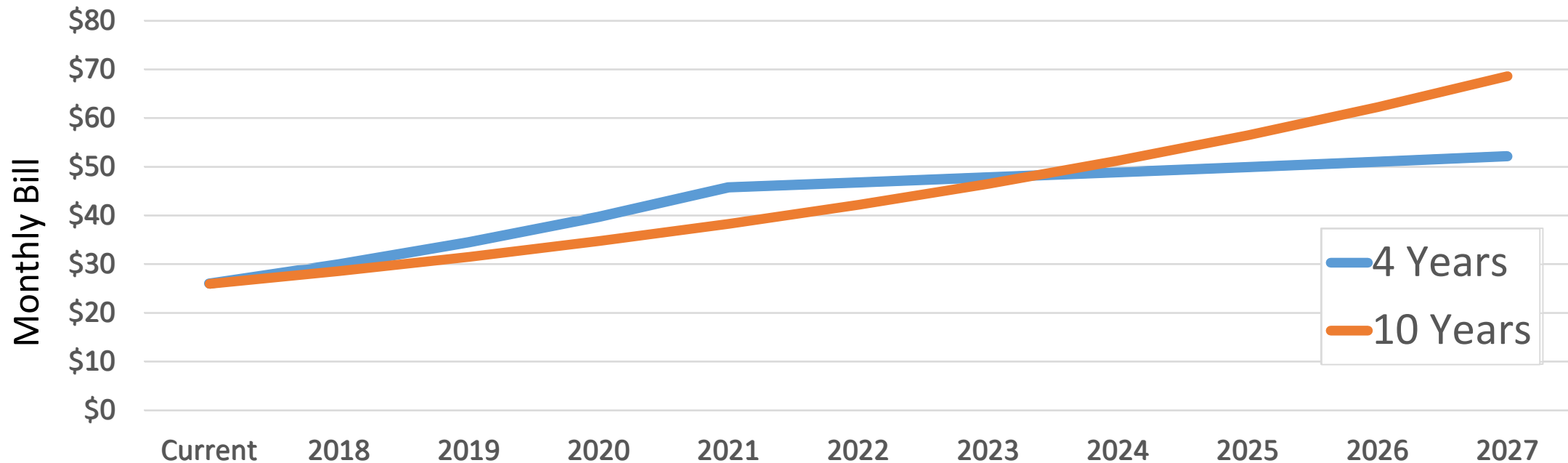


Scenario assumes Pay-Go financing and \$800,000 of additional funding sources secured

IMPLEMENTATION: 4 YEARS + CPI VS. 10 YEARS EQUAL

PAY-GO EXAMPLE – SCENARIOS 1A & 3A

Single-Family Residential Monthly Water Bill

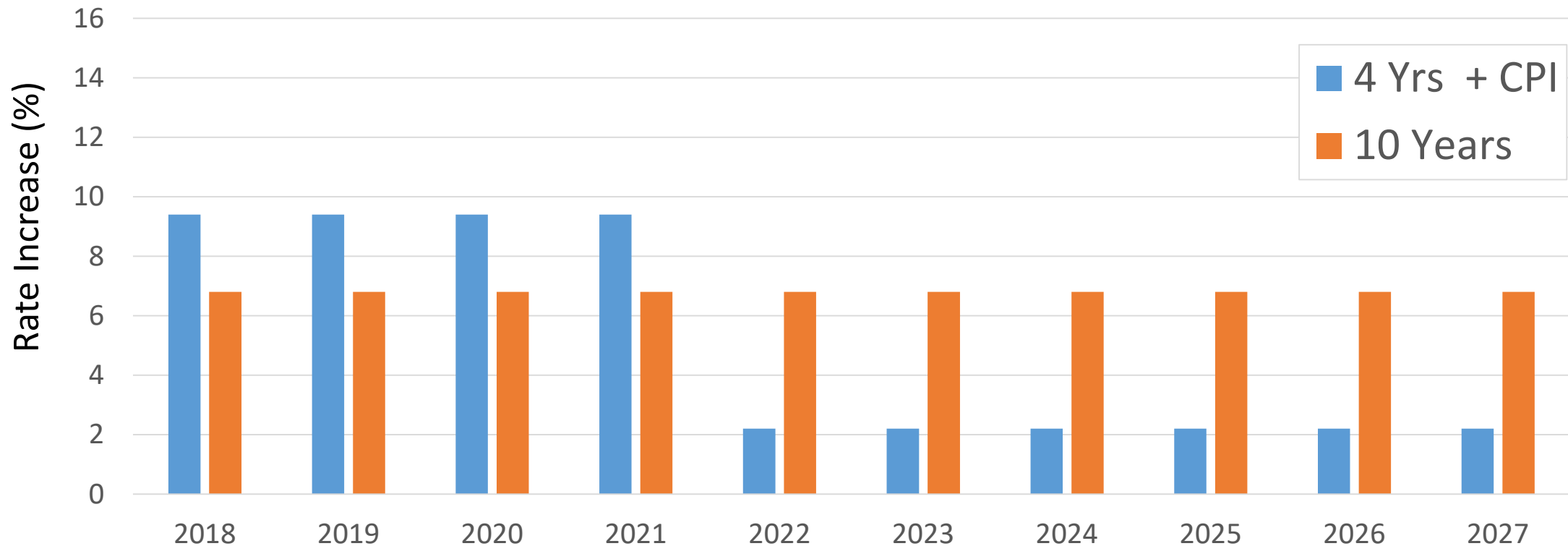


Scenario assumes \$800,000 of additional funding sources secured

IMPLEMENTATION: 4 YEARS + CPI VS. 10 YEARS EQUAL

DEBT ISSUANCE EXAMPLE – SCENARIOS 1B & 3B

Percentage Increase to Water Rates

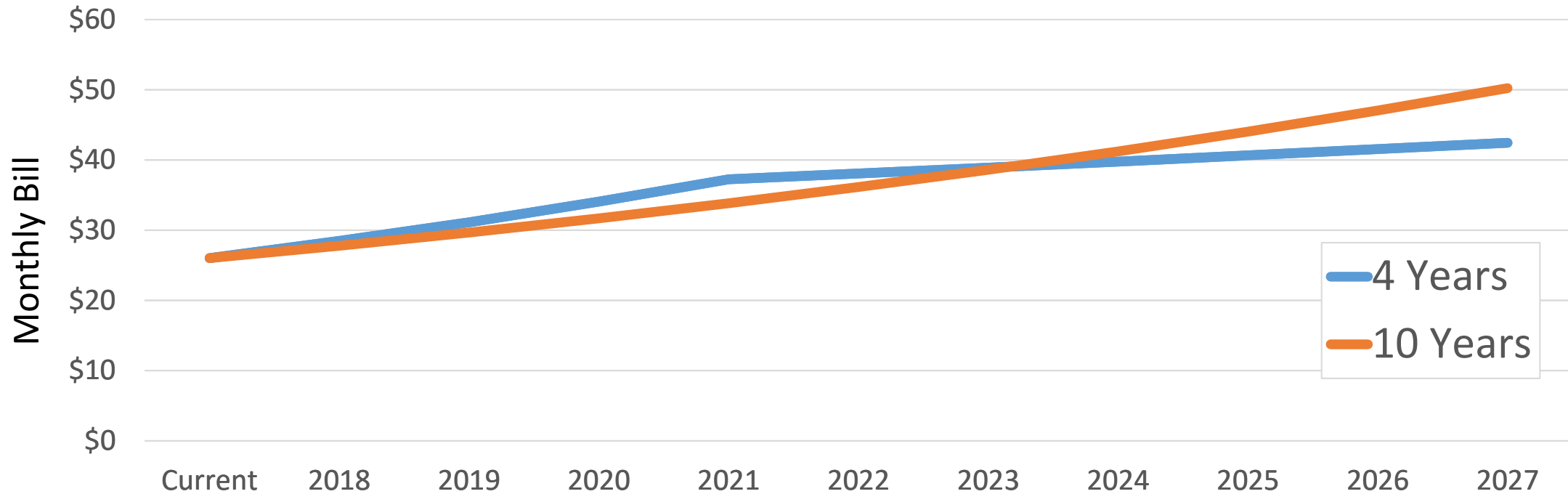


Scenario assumes Debt issued and \$800,000 of additional funding sources secured

IMPLEMENTATION: 4 YEARS + CPI VS. 10 YEARS EQUAL

DEBT ISSUANCE EXAMPLE – SCENARIOS 1B & 3B

Single-Family Residential Monthly Water Bill



Scenario assumes \$800,000 of additional funding sources secured

RATE MODEL VARIATIONS

FUNDING CAPITAL:

Pay-As-You-Go vs.
Issuing Debt

IMPLEMENTATION TIMEFRAME:

4-Year Rate Phase In
with CPI Increases after

Equal increases for
10 years

OTHER FUNDING SOURCES:

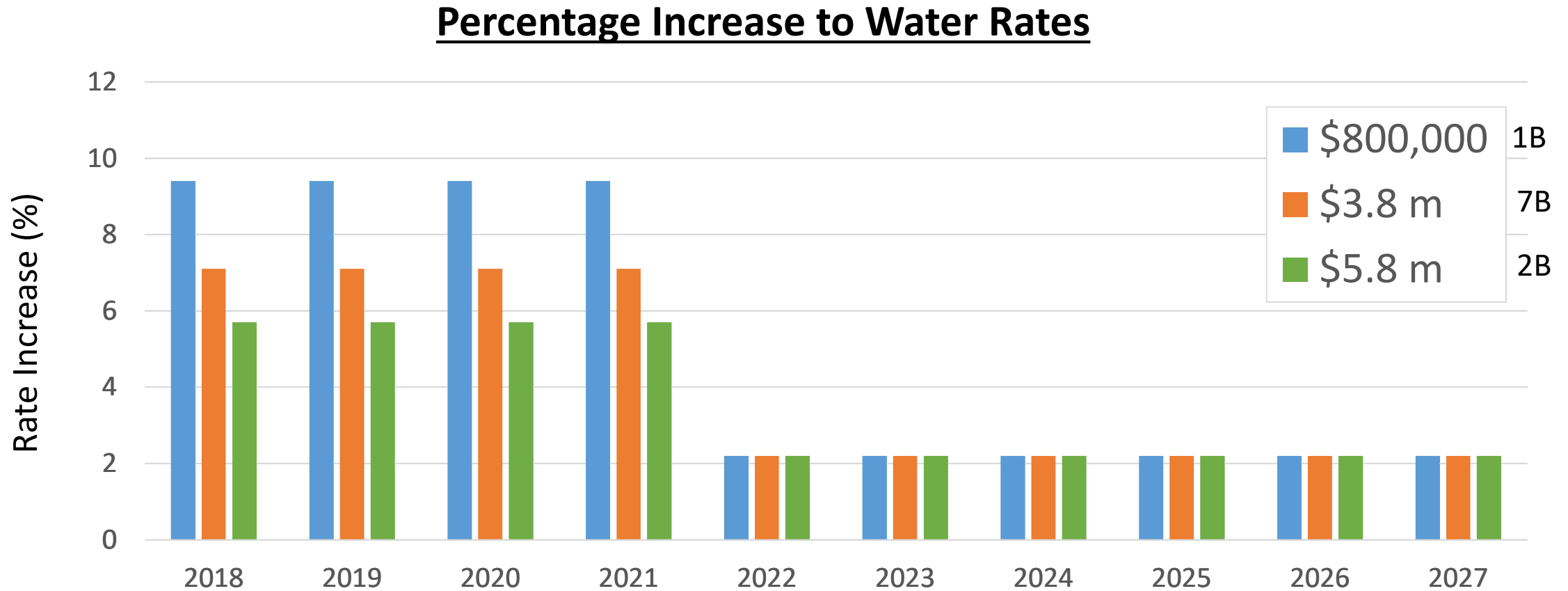
\$800,000

\$3.8 million

\$5.8 million

FUNDING: \$800,000 vs. \$3.8 million vs. \$5.8 million

DEBT ISSUANCE w/4 YEAR + CPI PHASE IN



Rate impacts are reduced by approximately .5 - 1% for every \$1 million in additional funding secured.

RATE MODEL VARIATIONS

FUNDING CAPITAL:

**Pay-As-You-Go vs.
Issuing Debt**

IMPLEMENTATION TIMEFRAME:

**4-Year Rate Phase In
with CPI Increases after**

**Equal increases for
10 years**

OTHER FUNDING SOURCES:

\$800,000

\$3.8 million

\$5.8 million

RATE MODEL VARIATIONS

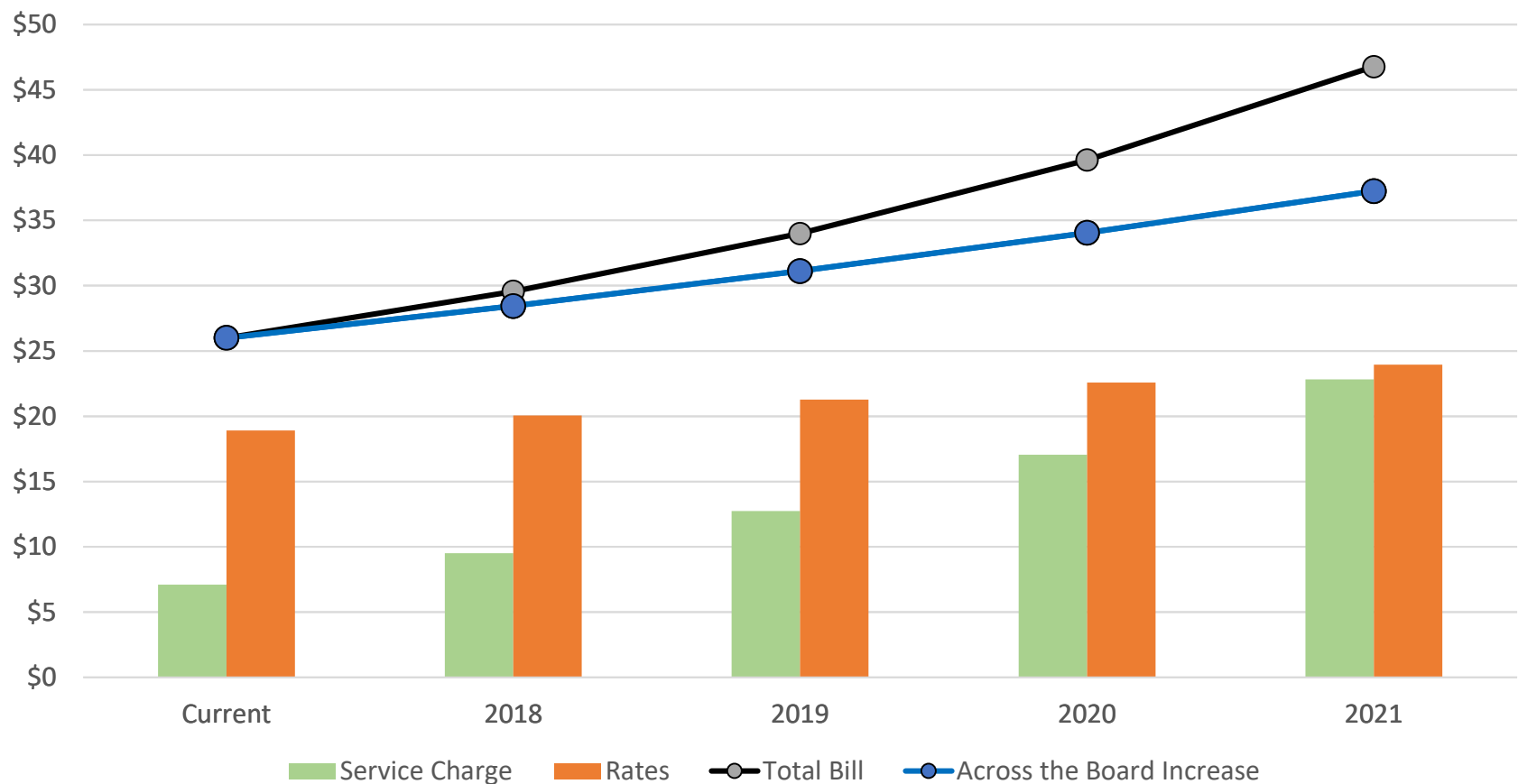
FUNDING CAPITAL:

**Shifting more impacts to
the Service Charge**

SERVICE CHARGE INCREASES – SFR EXAMPLE

DEBT ISSUANCE + \$800,000 ADDL FUNDING + 4 YRS + CPI EXAMPLE

SCENARIOS 1B & 5A



Scenario assumes Debt issued and \$800,000 of additional funding sources secured

RATE SCENARIOS

Scenario	Financing	Implementation	Addl. Funding Sources	Rate Increase
1A	Pay-Go	4 Years + CPI	\$0.8 million	15.2%
1B	Issue Debt	4 Years + CPI	\$0.8 million	9.4%
2A	Pay-Go	4 Years + CPI	\$5.8 million	9.2%
2B	Issue Debt	4 Years + CPI	\$5.8 million	5.7%
3A	Pay-Go	10 Years	\$0.8 million	10.2%
3B	Issue Debt	10 Years	\$0.8 million	6.8%
4A	Pay-Go	10 Years	\$5.8 million	6.6%
4B	Issue Debt	10 Years	\$5.8 million	4.4%

RATE SCENARIOS, CONTINUED

Scenario	Financing	Implementation	Addl. Funding Sources	Rate Increase
5A	Issue Debt	4 Years + CPI	\$0.8 million	OVERALL: 9.4% Tier: 6.1% Svc. Chg: 33.9%
5B	Issue Debt	10 Years	\$0.8 million	OVERALL: 6.8% Tier: 5.9% Svc. Chg: 13.9%
6A	Issue Debt	4 Years + CPI	\$5.8 million	OVERALL: 5.7% Tier: 4.4% Svc. Chg: 17.3%
6B	Issue Debt	10 Years	\$5.8 million	OVERALL: 4.4% Tier: 4.0% Svc. Chg: 8.0%
7A	Pay-Go	4 Years + CPI	\$3.8 million	11.6%
7B	Issue Debt	4 Years + CPI	\$3.8 million	7.1%
8A	Pay Go	10 Years	\$3.8 million	8.1%
8B	Issue Debt	10 Years	\$3.8 million	5.3%

FUNDING RECOMMENDATIONS



Funding Capital

Pay-Go vs. Issue Bonds



Timeline for Implementation

4 Years + CPI vs. 10 Year Equal Increases



Supplemental Funding

Grants + Other Funding Sources



Sharing the Cost

More impacts to Service Charge

NEXT MEETING

Thursday, September 14 at 1:00 p.m.

Review additional rate scenarios (if any proposed)

Finalize recommendations

SCENARIO REVIEW: 1A

Model Variable	Model Input
Capital Program Funding Sources	Pay-Go (No debt issued) \$800,000 grants received No other funding sources
Phased-In Timeframe	4 Years
CPI-Indexed?	Yes

Model Results:

Year of Implementation	2018	2019	2020	2021	2022 +
Increase to Water Rates & Service Charge	15.2%	15.2%	15.2%	15.2%	CPI

1A: \$0.8 mil. Other Funding + Pay-Go

Customer Type	Average Consumption	Current Bill	New 2018 Bill	New 2019 Bill	New 2020 Bill	New 2021 Bill
Single Family Residential	7	\$ 26.00	\$ 29.95	\$ 34.50	\$ 39.74	\$ 45.78
Multi-family Residential	5,442	15,987.06	18,417.12	21,216.51	24,441.41	28,156.50
Elementary School	536	1,498.20	1,722.45	1,980.78	2,278.37	2,621.20
Shopping Center	299	934.00	1,064.89	1,215.67	1,389.37	1,589.47
Shopping Center	483	1,371.95	1,572.31	1,803.12	2,069.01	2,375.32
Restaurant	18	56.05	64.57	74.38	85.68	98.70
Non Profit	22	76.10	87.67	100.99	116.34	134.02
Non Profit (2)	20	68.05	78.40	90.32	104.04	119.85
Gaming Resort	5,362	14,725.40	16,936.30	19,483.25	22,417.35	25,797.43
Library	118	366.65	417.22	475.47	542.57	619.87
Park	1,051	2,987.30	3,422.11	3,923.01	4,500.05	5,164.80
Small Business	50	211.70	235.70	263.35	295.20	331.89

SCENARIO REVIEW: 1B

Model Variable	Model Input
Capital Program Funding Sources	Issue debt for full program \$800,000 grants received No other funding sources
Phased-In Timeframe	4 Years
CPI-Indexed?	Yes

Model Results:

Year of Implementation	2018	2019	2020	2021	2022 +
Increase to Water Rates & Service Charge	9.4%	9.4%	9.4%	9.4%	CPI

1B: \$0.8 mil. Other Funding + Debt Issuance

Customer Type	Average Consumption	Current Bill	New 2018 Bill	New 2019 Bill	New 2020 Bill	New 2021 Bill
Single Family Residential	7	\$ 26.00	\$ 28.45	\$ 31.12	\$ 34.05	\$ 37.25
Multi-family Residential	5,442	15,987.06	17,498.85	19,133.87	20,932.46	22,900.12
Elementary School	536	1,498.20	1,636.88	1,788.58	1,954.55	2,136.13
Shopping Center	299	934.00	1,014.95	1,103.50	1,200.37	1,306.35
Shopping Center	483	1,371.95	1,495.85	1,631.40	1,779.69	1,941.92
Restaurant	18	56.05	61.32	67.09	73.40	80.30
Non Profit	22	76.10	83.25	91.08	99.64	109.00
Non Profit (2)	20	68.05	74.45	81.44	89.10	97.48
Gaming Resort	5,362	14,725.40	16,092.68	17,588.48	19,224.89	21,015.11
Library	118	366.65	397.92	432.12	469.54	510.48
Park	1,051	2,987.30	3,256.19	3,550.36	3,872.19	4,224.27
Small Business	50	211.70	226.54	242.77	260.54	279.98

SCENARIO REVIEW: 2A

Model Variable	Model Input
Capital Program Funding Sources	Pay-Go, no debt issued \$800,000 grants received \$5 million in Fort Mohave funds
Phased-In Timeframe	4 Years
CPI-Indexed?	Yes

Model Results:

Year of Implementation	2018	2019	2020	2021	2022 +
Increase to Water Rates & Service Charge	9.2%	9.2%	9.2%	9.2%	CPI

2A: \$5.8 mil. Other Funding + Pay-Go

Customer Type	Average Consumption	Current Bill	New 2018 Bill	New 2019 Bill	New 2020 Bill	New 2021 Bill
Single Family Residential	7	\$ 26.00	\$ 28.39	\$ 31.00	\$ 33.85	\$ 36.96
Multi-family Residential	5,442	15,987.06	17,457.87	19,064.02	20,817.91	22,733.15
Elementary School	536	1,498.20	1,633.92	1,782.13	1,943.98	2,120.72
Shopping Center	299	934.00	1,013.22	1,099.73	1,194.20	1,297.36
Shopping Center	483	1,371.95	1,493.22	1,625.64	1,770.25	1,928.16
Restaurant	18	56.05	61.21	66.84	72.99	79.70
Non Profit	22	76.10	83.09	90.73	99.08	108.20
Non Profit (2)	20	68.05	74.31	81.15	88.61	96.76
Gaming Resort	5,362	14,725.40	16,063.58	17,524.88	19,120.61	20,863.14
Library	118	366.65	397.25	430.67	467.16	507.01
Park	1,051	2,987.30	3,250.48	3,537.87	3,851.70	4,194.40
Small Business	50	211.70	226.23	242.09	259.41	278.32

SCENARIO REVIEW: 2B

Model Variable	Model Input
Capital Program Funding Sources	Debt issued for remainder \$800,000 grants received \$5 million in Fort Mohave funds
Phased-In Timeframe	4 Years
CPI-Indexed?	Yes

Model Results:

Year of Implementation	2018	2019	2020	2021	2022 +
Increase to Water Rates & Service Charge	5.7%	5.7%	5.7%	5.7%	CPI

2B: \$5.8 mil. Other Funding + Debt Issuance

Customer Type	Average Consumption	Current Bill	New 2018 Bill	New 2019 Bill	New 2020 Bill	New 2021 Bill
Single Family Residential	7	\$ 26.00	\$ 27.48	\$ 29.05	\$ 30.70	\$ 32.45
Multi-family Residential	5,442	15,987.06	16,898.33	17,861.55	18,879.65	19,955.79
Elementary School	536	1,498.20	1,582.29	1,671.19	1,765.13	1,864.44
Shopping Center	299	934.00	983.09	1,034.97	1,089.81	1,147.77
Shopping Center	483	1,371.95	1,447.09	1,526.51	1,610.45	1,699.19
Restaurant	18	56.05	59.24	62.62	66.19	69.96
Non Profit	22	76.10	80.44	85.03	89.87	95.00
Non Profit (2)	20	68.05	71.93	76.03	80.36	84.94
Gaming Resort	5,362	14,725.40	15,554.50	16,430.85	17,357.16	18,336.26
Library	118	366.65	385.61	405.66	426.84	449.24
Park	1,051	2,987.30	3,150.36	3,322.71	3,504.88	3,697.43
Small Business	50	211.70	220.71	230.22	240.28	250.91

RATE MODEL VARIATIONS

NEW VARIABLE:

Equal rate increases over 10 years

Impacts to Rates:

- Spreads increase over 10 years; avoids rate shock in early years
- Less variability in future years
- Same amount every year; easier to budget for

SCENARIO REVIEW: 3A

Model Variable	Model Input
Capital Program Funding Sources	Pay-Go (No debt issued) \$800,000 grants received No other funding sources
Phased-In Timeframe	10 Years
CPI-Indexed?	No

Model Results:

Year of Implementation	2018	2019	2020	2021	2022 +
Increase to Water Rates & Service Charge	10.2%	10.2%	10.2%	10.2%	10.2%

3A: 10 Year Equal Rates; \$0.8 mil. Other Funding; Pay-Go

Customer Type	Average Consumption	Current Bill	New 2018 Bill	New 2019 Bill	New 2020 Bill	New 2021 Bill
Single Family Residential	7	\$ 26.00	\$ 28.65	\$ 31.57	\$ 34.79	\$ 38.34
Multi-family Residential	5,442	15,987.06	17,617.74	19,414.75	21,395.04	23,577.32
Elementary School	536	1,498.20	1,648.68	1,814.51	1,997.25	2,198.63
Shopping Center	299	934.00	1,021.83	1,118.62	1,225.28	1,342.82
Shopping Center	483	1,371.95	1,506.04	1,654.56	1,817.84	1,997.78
Restaurant	18	56.05	61.77	68.07	75.01	82.66
Non Profit	22	76.10	83.86	94.42	101.85	112.24
Non Profit (2)	20	68.05	74.99	82.64	91.07	100.36
Gaming Resort	5,362	14,725.40	16,209.03	17,843.99	19,645.71	21,631.21
Library	118	366.65	400.58	437.97	479.17	524.58
Park	1,051	2,987.30	3,279.09	3,600.63	3,954.97	4,345.46
Small Business	50	211.70	227.81	245.55	265.11	286.67

SCENARIO REVIEW: 3B

Model Variable	Model Input
Capital Program Funding Sources	Issue debt for full program \$800,000 grants received No other funding sources
Phased-In Timeframe	10 Years
CPI-Indexed?	No

Model Results:

Year of Implementation	2018	2019	2020	2021	2022 +
Increase to Water Rates & Service Charge	6.8%	6.8%	6.8%	6.8%	6.8%

3B: 10 Year Equal Rates; \$0.8 mil. Other Funding; Debt Issuance

Customer Type	Average Consumption	Current Bill	New 2018 Bill	New 2019 Bill	New 2020 Bill	New 2021 Bill
Single Family Residential	7	\$ 26.00	\$ 27.77	\$ 29.66	\$ 31.68	\$ 33.84
Multi-family Residential	5,442	15,987.06	17,074.19	18,235.24	19,475.25	20,799.56
Elementary School	536	1,498.20	1,598.53	1,705.67	1,820.10	1,942.30
Shopping Center	299	934.00	992.56	1,055.10	1,121.89	1,193.22
Shopping Center	483	1,371.95	1,461.59	1,557.31	1,659.54	1,768.72
Restaurant	18	56.05	59.86	63.93	68.28	72.93
Non Profit	22	76.10	81.27	86.80	92.70	99.00
Non Profit (2)	20	68.05	72.68	77.62	82.90	88.53
Gaming Resort	5,362	14,725.40	15,714.48	16,770.82	17,899.00	19,103.90
Library	118	366.65	389.27	413.43	439.23	466.78
Park	1,051	2,987.30	3,181.82	3,389.56	3,611.44	3,848.41
Small Business	50	211.70	222.44	233.90	246.15	259.23

SCENARIO REVIEW: 4A

Model Variable	Model Input
Capital Program Funding Sources	Pay-Go, no debt issued \$800,000 grants received \$5 million in Fort Mohave funds
Phased-In Timeframe	10 Years
CPI-Indexed?	No

Model Results:

Year of Implementation	2018	2019	2020	2021	2022 +
Increase to Water Rates & Service Charge	6.6%	6.6%	6.6%	6.6%	6.6%

4A: 10 Year Equal Rates; \$5.8 mil. Other Funding; Pay-Go

Customer Type	Average Consumption	Current Bill	New 2018 Bill	New 2019 Bill	New 2020 Bill	New 2021 Bill
Single Family Residential	7	\$ 26.00	\$ 27.72	\$ 29.55	\$ 31.50	\$ 33.58
Multi-family Residential	5,442	15,987.06	17,042.21	18,167.00	19,366.02	20,644.18
Elementary School	536	1,498.20	1,595.58	1,699.38	1,810.02	1,927.97
Shopping Center	299	934.00	990.83	1,051.42	1,116.01	1,184.85
Shopping Center	483	1,371.95	1,458.95	1,551.69	1,650.54	1,755.92
Restaurant	18	56.05	59.75	63.69	67.90	72.39
Non Profit	22	76.10	81.12	86.48	92.19	98.28
Non Profit (2)	20	68.05	72.54	77.33	82.43	87.87
Gaming Resort	5,362	14,725.40	15,685.39	16,708.75	17,799.65	18,962.55
Library	118	366.65	388.61	412.02	436.97	463.56
Park	1,051	2,987.30	3,176.10	3,377.36	3,591.91	3,820.61
Small Business	50	211.70	222.12	233.23	245.08	257.70

SCENARIO REVIEW: 4B

Model Variable	Model Input
Capital Program Funding Sources	Debt issued for remainder \$800,000 grants received \$5 million in Fort Mohave funds
Phased-In Timeframe	10 Years
CPI-Indexed?	No

Model Results:

Year of Implementation	2018	2019	2020	2021	2022 +
Increase to Water Rates & Service Charge	4.4%	4.4%	4.4%	4.4%	4.4%

4B: 10 Year Equal Rates; \$5.8 mil. Other Funding; Debt Issuance

Customer Type	Average Consumption	Current Bill	New 2018 Bill	New 2019 Bill	New 2020 Bill	New 2021 Bill
Single Family Residential	7	\$ 26.00	\$ 27.14	\$ 28.34	\$ 29.59	\$ 30.90
Multi-family Residential	5,442	15,987.06	16,690.50	17,424.88	18,191.58	18,991.99
Elementary School	536	1,498.20	1,563.12	1,630.90	1,701.65	1,775.51
Shopping Center	299	934.00	971.89	1,011.44	1,052.74	1,095.85
Shopping Center	483	1,371.95	1,429.95	1,490.51	1,553.73	1,619.73
Restaurant	18	56.05	58.52	61.09	63.78	66.58
Non Profit	22	76.10	79.44	82.94	86.59	90.40
Non Profit (2)	20	68.05	71.05	74.18	77.44	80.84
Gaming Resort	5,362	14,725.40	15,365.41	16,033.57	16,731.12	17,459.36
Library	118	366.65	381.29	396.58	412.53	429.18
Park	1,051	2,987.30	3,113.17	3,244.57	3,381.76	3,524.99
Small Business	50	211.70	218.65	225.90	233.47	241.38

SCENARIO REVIEW: 5A

Model Variable	Model Input
Capital Program Funding Sources	Debt issued for remainder \$800,000 grants received No other funding sources
Phased-In Timeframe	4 Years
CPI-Indexed?	Yes
Emphasis on Service Charge	Service Charge increased to fund debt service

Model Results:

Year of Implementation	2018	2019	2020	2021	2022 +
Increase to Water Rates & Service Charge	OVERALL: 9.4% Tier: 6.1% Svc. Chg: 33.9%	OVERALL: 9.4% Tier: 6.1% Svc. Chg: 33.9%	OVERALL: 9.4% Tier: 6.1% Svc. Chg: 33.9%	OVERALL: 9.4% Tier: 6.1% Svc. Chg: 33.9%	CPI

5A: Service Charge Emphasis; 4-Year Implementation; \$0.8 mil. Other Funding; Issue Debt

Customer Type	Average Consumption	Current Bill	New 2018 Bill	New 2019 Bill	New 2020 Bill	New 2021 Bill
Single Family Residential	7	\$ 26.00	\$ 29.56	\$ 34.00	\$ 39.62	\$ 46.78
Multi-family Residential	5,442	15,987.06	16,994.50	18,074.30	19,234.61	20,485.26
Elementary School	536	1,498.20	1,596.00	1,702.43	1,818.89	1,947.19
Shopping Center	299	934.00	1,001.49	1,078.16	1,166.30	1,268.91
Shopping Center	483	1,371.95	1,456.26	1,547.04	1,645.13	1,751.57
Restaurant	18	56.05	61.54	68.07	75.94	85.54
Non Profit	22	76.10	85.38	96.80	111.03	128.95
Non Profit (2)	20	68.05	76.10	85.97	98.22	113.58
Gaming Resort	5,362	14,725.40	15,631.58	16,599.43	17,634.92	18,745.05
Library	118	366.65	390.84	417.84	448.26	482.90
Park	1,051	2,987.30	3,168.16	3,362.21	3,570.99	3,796.37
Small Business	50	211.70	227.70	246.83	270.02	298.49

SCENARIO REVIEW: 5B

Model Variable	Model Input
Capital Program Funding Sources	Debt issued for remainder \$800,000 grants received No other funding sources
Phased-In Timeframe	10 Years
CPI-Indexed?	No
Emphasis on Service Charge	Service Charge increased to fund debt service

Model Results:

Year of Implementation	2018	2019	2020	2021	2022 +
Increase to Water Rates & Service Charge	OVERALL: 6.8% Tier: 5.9% Svc. Chg: 13.9%	OVERALL: 6.8% Tier: 5.9% Svc. Chg: 13.9%	OVERALL: 6.8% Tier: 5.9% Svc. Chg: 13.9%	OVERALL: 6.8% Tier: 5.9% Svc. Chg: 13.9%	OVERALL: 6.8% Tier: 5.9% Svc. Chg: 13.9%

5B: Service Charge Emphasis; 10-Year Implementation; \$0.8 mil. Other Funding; Issue Debt

Customer Type	Average Consumption	Current Bill	New 2018 Bill	New 2019 Bill	New 2020 Bill	New 2021 Bill
Single Family Residential	7	\$ 26.00	\$ 28.11	\$30.41	\$ 32.94	\$ 35.72
Multi-family Residential	5,442	15,987.06	16,939.57	17,949.55	19,020.59	20,156.49
Elementary School	536	1,498.20	1,587.48	1,682.34	1,783.16	1,890.33
Shopping Center	299	934.00	989.11	1,048.07	1,111.19	1,178.81
Shopping Center	483	1,371.95	1,450.84	1,534.54	1,623.36	1,717.62
Restaurant	18	56.05	59.96	64.18	68.74	73.68
Non Profit	22	76.10	81.92	88.27	95.21	102.80
Non Profit (2)	20	68.05	73.19	78.78	84.88	91.54
Gaming Resort	5,362	14,725.40	15,589.03	16,504.35	17,474.54	18,502.95
Library	118	366.65	387.40	409.53	433.14	458.35
Park	1,051	2,987.30	3,157.90	3,338.83	3,530.72	3,734.26
Small Business	50	211.70	222.85	234.92	247.98	262.14

SCENARIO REVIEW: 6A

Model Variable	Model Input
Capital Program Funding Sources	Debt issued for remainder \$800,000 grants received \$5 million in Fort Mohave funds
Phased-In Timeframe	4 Years
CPI-Indexed?	Yes
Emphasis on Service Charge	Service Charge increased to fund debt service

Model Results:

Year of Implementation	2018	2019	2020	2021	2022 +
Increase to Water Rates & Service Charge	OVERALL: 5.7% Tier: 4.4% Svc. Chg: 17.3%	OVERALL: 5.7% Tier: 4.4% Svc. Chg: 17.3%	OVERALL: 5.7% Tier: 4.4% Svc. Chg: 17.3%	OVERALL: 5.7% Tier: 4.4% Svc. Chg: 17.3%	CPI

6A: Service Charge Emphasis; 4-Year Implementation; \$5.8 mil. Other Funding; Issue Debt

Customer Type	Average Consumption	Current Bill	New 2018 Bill	New 2019 Bill	New 2020 Bill	New 2021 Bill
Single Family Residential	7	\$ 26.00	\$ 28.06	\$ 30.37	\$ 32.97	\$ 35.90
Multi-family Residential	5,442	15,987.06	16,705.44	17,458.01	18,246.74	19,073.71
Elementary School	536	1,498.20	1,566.74	1,638.92	1,715.01	1,795.31
Shopping Center	299	934.00	978.83	1,026.83	1,078.36	1,133.80
Shopping Center	483	1,371.95	1,431.75	1,494.52	1,560.41	1,629.63
Restaurant	18	56.05	59.48	63.22	67.32	71.83
Non Profit	22	76.10	81.60	87.72	94.35	102.18
Non Profit (2)	20	68.05	72.86	78.19	84.12	90.74
Gaming Resort	5,362	14,725.40	15,374.17	16,053.01	16,763.48	17,507.30
Library	118	366.65	383.10	400.59	419.21	439.08
Park	1,051	2,987.30	3,116.12	3,251.12	3,392.66	3,541.13
Small Business	50	211.70	221.60	232.45	244.37	257.52

SCENARIO REVIEW: 6B

Model Variable	Model Input
Capital Program Funding Sources	Debt issued for remainder \$800,000 grants received \$5 million in Fort Mohave funds
Phased-In Timeframe	10 Years
CPI-Indexed?	No
Emphasis on Service Charge	Service Charge increased to fund debt service

Model Results:

Year of Implementation	2018	2019	2020	2021	2022 +
Increase to Water Rates & Service Charge	OVERALL: 4.4% Tier: 4.0% Svc. Chg: 8.0%	OVERALL: 4.4% Tier: 4.0% Svc. Chg: 8.0%	OVERALL: 4.4% Tier: 4.0% Svc. Chg: 8.0%	OVERALL: 4.4% Tier: 4.0% Svc. Chg: 8.0%	OVERALL: 4.4% Tier: 4.0% Svc. Chg: 8.0%

6B: Service Charge Emphasis; 10-Year Implementation; \$0.8 mil. Other Funding; Issue Debt

Customer Type	Average Consumption	Current Bill	New 2018 Bill	New 2019 Bill	New 2020 Bill	New 2021 Bill
Single Family Residential	7	\$ 26.00	\$ 27.33	\$28.73	\$ 30.21	\$ 31.78
Multi-family Residential	5,442	15,987.06	16,631.16	17,301.42	17,998.89	18,724.70
Elementary School	536	1,498.20	1,558.33	1,620.96	1,686.19	1,754.15
Shopping Center	299	934.00	970.59	1,008.82	1,048.77	1,090.51
Shopping Center	483	1,371.95	1,425.23	1,480.69	1,538.42	1,598.51
Restaurant	18	56.05	58.59	61.25	64.05	66.99
Non Profit	22	76.10	79.82	83.73	87.86	92.22
Non Profit (2)	20	68.05	71.33	74.79	78.44	82.29
Gaming Resort	5,362	14,725.40	15,309.94	15,918.08	16,550.77	17,209.04
Library	118	366.65	380.51	394.97	410.06	425.81
Park	1,051	2,987.30	3,102.64	3,222.67	3,347.58	3,477.57
Small Business	50	211.70	218.93	226.53	234.51	242.89

SCENARIO REVIEW: 7A

Model Variable	Model Input
Capital Program Funding Sources	Pay-Go, no debt issued \$800,000 grants received \$3 million in Fort Mohave funds
Phased-In Timeframe	4 Years
CPI-Indexed?	Yes

Model Results:

Year of Implementation	2018	2019	2020	2021	2022 +
Increase to Water Rates & Service Charge	11.6%	11.6%	11.6%	11.6%	CPI

7A: 4 Years + CPI; \$3.8 mil. Other Funding; Pay-Go

Customer Type	Average Consumption	Current Bill	New 2018 Bill	New 2019 Bill	New 2020 Bill	New 2021 Bill
Single Family Residential	7	\$ 26.00	\$ 29.01	\$ 32.38	\$ 36.14	\$ 40.33
Multi-family Residential	5,442	15,987.06	17,841.55	19,911.17	22,220.86	24,798.48
Elementary School	536	1,498.20	1,669.34	1,860.33	2,073.47	2,311.34
Shopping Center	299	934.00	1,033.89	1,145.36	1,269.76	1,408.59
Shopping Center	483	1,371.95	1,524.86	1,695.51	1,885.95	2,098.49
Restaurant	18	56.05	62.55	69.80	77.90	86.94
Non Profit	22	76.10	84.92	94.77	105.77	118.04
Non Profit (2)	20	68.05	75.94	84.75	94.58	105.56
Gaming Resort	5,362	14,725.40	16,412.66	18,295.65	20,397.06	22,742.24
Library	118	366.65	405.24	448.30	496.36	550.00
Park	1,051	2,987.30	3,319.13	3,689.45	4,102.73	4,563.95
Small Business	50	211.70	230.02	250.46	273.27	298.73

SCENARIO REVIEW: 7B

Model Variable	Model Input
Capital Program Funding Sources	Debt issued for remainder \$800,000 grants received \$3 million in Fort Mohave funds
Phased-In Timeframe	4 Years
CPI-Indexed?	Yes

Model Results:

Year of Implementation	2018	2019	2020	2021	2022 +
Increase to Water Rates & Service Charge	7.1 %	7.1 %	7.1 %	7.1 %	CPI

7B: 4 Years + CPI; \$3.8 mil. Other Funding; Debt Issuance

Customer Type	Average Consumption	Current Bill	New 2018 Bill	New 2019 Bill	New 2020 Bill	New 2021 Bill
Single Family Residential	7	\$ 26.00	\$ 27.84	\$ 29.82	\$ 31.94	\$ 34.21
Multi-family Residential	5,442	15,987.06	17,122.13	18,337.80	19,639.78	21,034.22
Elementary School	536	1,498.20	1,602.95	1,715.13	1,835.27	1,963.96
Shopping Center	299	934.00	995.14	1,060.62	1,130.75	1,205.85
Shopping Center	483	1,371.95	1,465.55	1,565.79	1,673.14	1,788.12
Restaurant	18	56.05	60.03	64.30	68.87	73.76
Non Profit	22	76.10	81.50	87.29	93.49	100.13
Non Profit (2)	20	68.05	72.88	78.06	83.60	89.54
Gaming Resort	5,362	14,725.40	15,758.12	16,864.17	18,048.75	19,317.44
Library	118	366.65	390.27	415.57	442.66	471.68
Park	1,051	2,987.30	3,190.41	3,407.93	3,640.90	3,890.41
Small Business	50	211.70	222.92	234.93	247.80	261.58

SCENARIO REVIEW: 8A

Model Variable	Model Input
Capital Program Funding Sources	Pay-As-You-Go, no debt issued \$800,000 grants received \$3 million in Fort Mohave funds
Phased-In Timeframe	10 years
CPI-Indexed?	No

Model Results:

Year of Implementation	2018	2019	2020	2021	2022 +
Increase to Water Rates & Service Charge	8.1%	8.1%	8.1%	8.1%	8.1%

8A: 10 Year Implementation; \$3.8 mil. Other Funding; Pay-Go

Customer Type	Average Consumption	Current Bill	New 2018 Bill	New 2019 Bill	New 2020 Bill	New 2021 Bill
Single Family Residential	7	\$ 26.00	\$ 28.11	\$30.38	\$ 32.84	\$35.50
Multi-family Residential	5,442	15,987.06	17,282.00	18,681.83	20,195.05	21,830.85
Elementary School	536	1,498.20	1,617.71	1,746.89	1,886.53	2,037.49
Shopping Center	299	934.00	1,003.75	1,079.15	1,160.65	1,248.75
Shopping Center	483	1,371.95	1,478.72	1,594.14	1,718.91	1,853.79
Restaurant	18	56.05	60.59	65.50	70.80	76.53
Non Profit	22	76.10	82.27	88.93	96.13	103.92
Non Profit (2)	20	68.05	73.56	79.52	85.96	92.93
Gaming Resort	5,362	14,725.40	15,903.57	17,177.18	18,553.96	20,042.25
Library	118	366.65	393.60	422.73	454.22	488.26
Park	1,051	2,987.30	3,219.00	3,469.47	3,740.24	4,032.93
Small Business	50	211.70	224.49	238.31	253.26	269.41

SCENARIO REVIEW: 8B

Model Variable	Model Input
Capital Program Funding Sources	Debt issued for remainder \$800,000 grants received \$3 million in Fort Mohave funds
Phased-In Timeframe	10 years
CPI-Indexed?	No

Model Results:

Year of Implementation	2018	2019	2020	2021	2022 +
Increase to Water Rates & Service Charge	5.3%	5.3%	5.3%	5.3%	5.3%

8B: 10 Year Implementation; \$3.8 mil. Other Funding; Debt Issuance

Customer Type	Average Consumption	Current Bill	New 2018 Bill	New 2019 Bill	New 2020 Bill	New 2021 Bill
Single Family Residential	7	\$ 26.00	\$ 27.38	\$ 28.83	\$ 30.36	\$ 31.97
Multi-family Residential	5,442	15,987.06	16,834.36	17,726.58	18,666.09	19,655.38
Elementary School	536	1,498.20	1,576.38	1,658.71	1,745.42	1,836.72
Shopping Center	299	934.00	979.64	1,027.69	1,078.29	1,131.58
Shopping Center	483	1,371.95	1,441.81	1,515.37	1,592.84	1,674.41
Restaurant	18	56.05	59.02	62.15	65.45	68.92
Non Profit	22	76.10	80.14	84.40	88.87	93.58
Non Profit (2)	20	68.05	71.65	75.44	79.44	83.65
Gaming Resort	5,362	14,725.40	15,496.31	16,308.08	17,162.88	18,062.96
Library	118	366.65	384.28	402.84	422.39	442.98
Park	1,051	2,987.30	3,138.91	3,298.56	3,466.67	3,643.69
Small Business	50	211.70	220.07	228.88	238.16	247.93