

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 Setting

August 7, 2017

MEETING AGENDA



Approval of Minutes

Sources and Uses of Funds Overview

Rate Setting

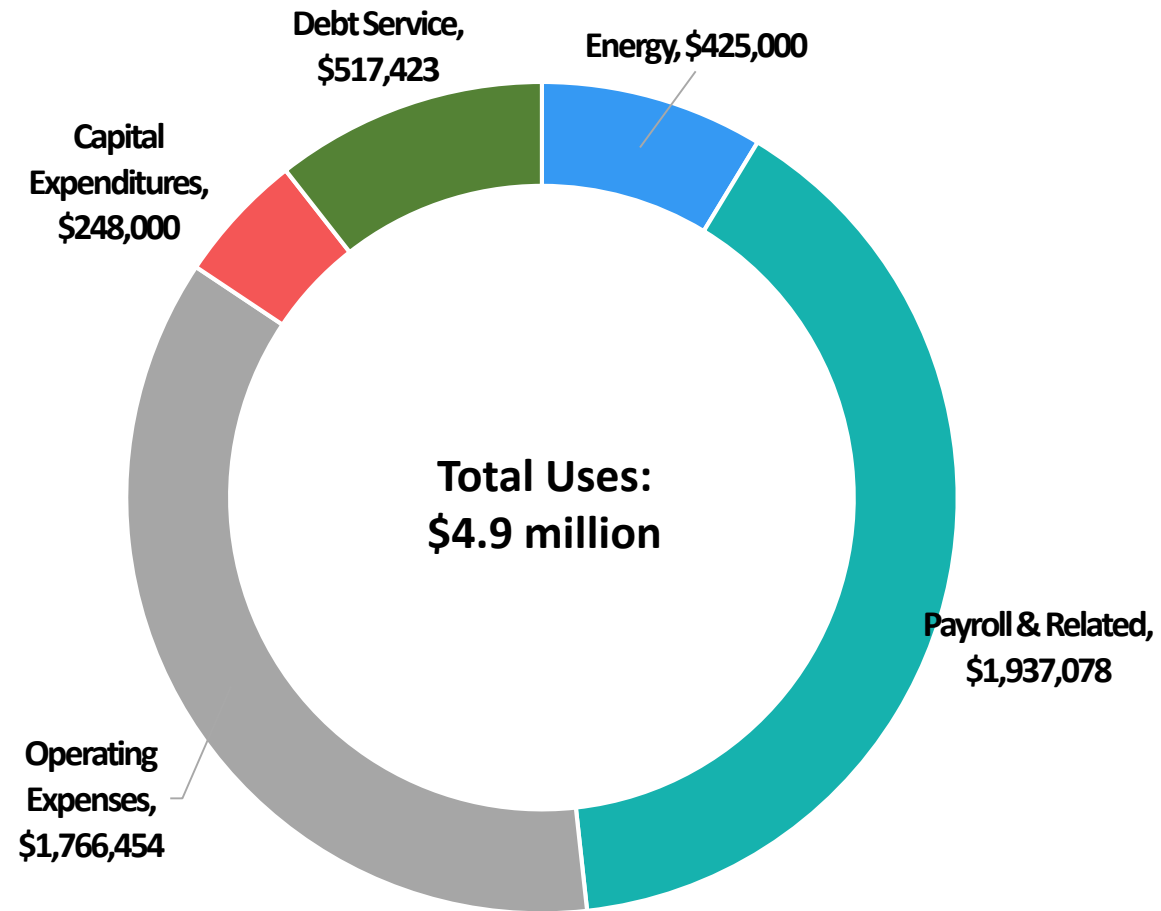
Rate Scenarios

SOURCES & USES

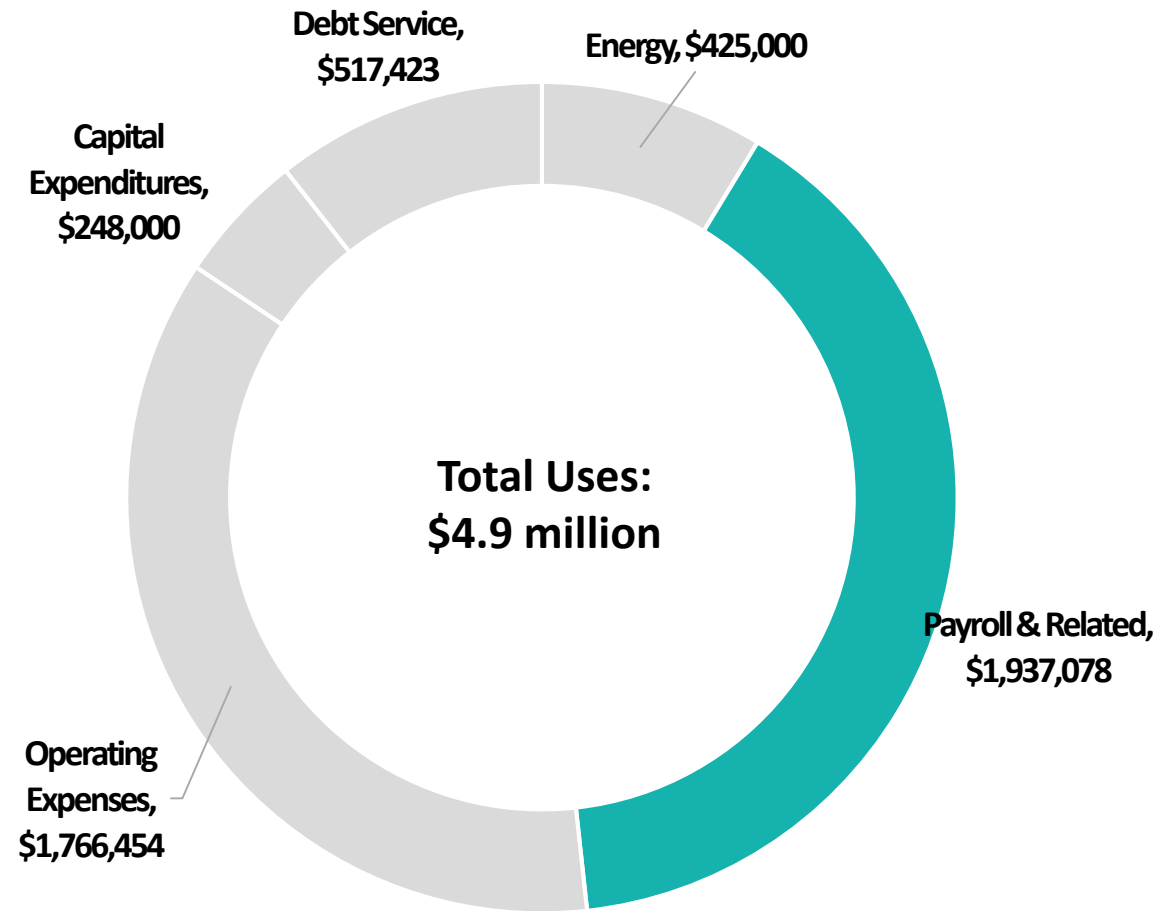
HISTORIC AND PROJECTED BUDGETS

	Estimated 2016-17	Budget 2017-18	Projected 2018-19
Sources			
Water Charges	\$ 3,086,178	\$ 3,195,438	\$ 3,188,074
Interest Income	20,542	8,874	(5,761)
System Development Charges	358,067	129,150	45,000
Sales Tax	393,994	395,685	404,390
Other Sources	-	-	-
BBWD Sources	\$ 3,858,781	\$ 3,729,147	\$ 3,631,703
Uses			
Energy	\$ 457,205	\$ 425,000	\$ 434,350
Payroll & Related	1,430,975	1,937,078	1,532,896
Operating Expenses	1,353,219	1,766,454	1,413,416
Capital Expenditures	20,000	248,000	2,443,079
Debt Service	517,423	517,423	517,423
BBWD Uses	\$ 3,778,822	\$ 4,893,955	\$ 6,341,164
BBWD Net Surplus/(Deficit)	\$ 79,959	\$ (1,164,808)	\$ (2,709,461)

2017-18 USES OF FUNDS



2017-18 USES OF FUNDS



USES: PAYROLL & RELATED

**In total, Big Bend Water District funds
approximately 11.75 full time equivalent positions.**

Seven positions are dedicated to operating the system and include:

- Two Customer Service representatives**
- Two Treatment Operators**
- One Senior Operator**
- One Mechanical Systems Technician**
- One Production Operations Supervisor**

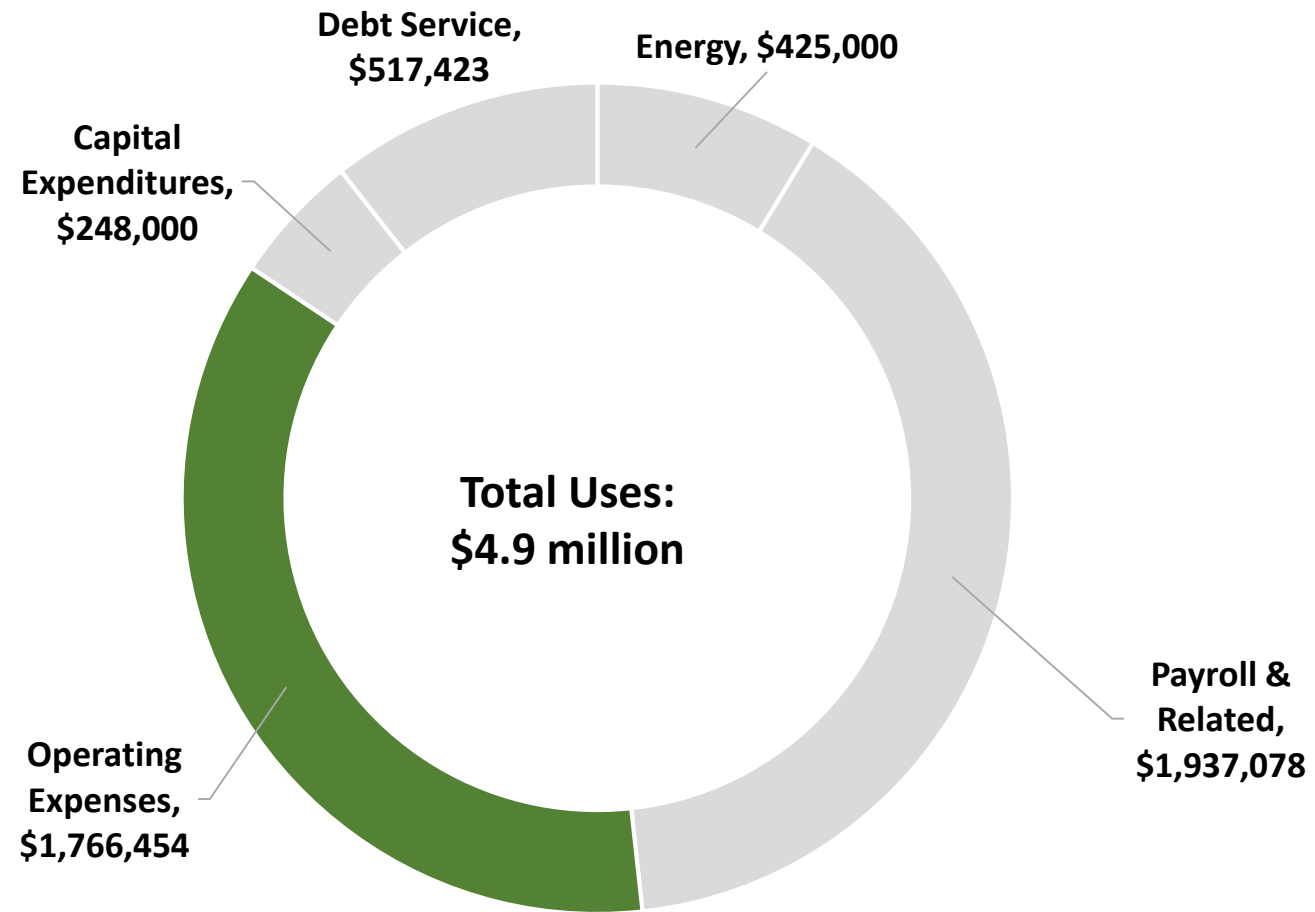
USES: PAYROLL & RELATED

Other staff support the system as needed:

- **IT Support** (Applications developer, Business Systems Analyst, Network Administrators)
- **Distribution** (Distribution Servicepersons, Distribution Crew Leader)
- **System Engineers** (Mechanical Engineer, Mechanical Systems Technician, Process Control Engineers, Process Safety Engineers)
- **Fleet Support** (Electronics Technicians, Mechanics, Paint & Body, Parts Technicians, Service Workers)
- **Water Treatment** (Treatment Operators, Operations Research Analysts, Water Quality Project Manager)

In total, 77 staff members are projected to support the water system this year.

USES: OPERATING EXPENSES



USES: OPERATING EXPENSES

Operating expenses include the materials and supplies needed to maintain and operate the water system.

It also includes the fees to SNWA and LVVWD that cover support activities.

Material, Parts, & O&M Supplies	\$ 155,000
Chemicals	144,500
DP Equip Under \$5000/Software	2,000
Fleet Maintenance	17,000
Administrative & General	255,000
Office Supplies, Printing Costs, Postage	18,500
Purchased Services	1,042,000
Rent/Lease Premises & Communication Equip	3,350
Safety Supplies/Protective Gear/Uniforms	3,000
Seminars/Registration/Travel/Training/Dues	4,050
Property & Casualty Insurance	5,554
Operating Permits	11,500
Professional & Technical Services	75,000
<u>Audit Fees & Expenses</u>	<u>30,000</u>
TOTAL OPERATING EXPENSES	\$ 1,766,454

USES: OPERATING EXPENSES – PURCHASED SERVICES

Purchased Services

Emergency On-Call Services	\$ 500,000
Proportional Share of SNWA Costs	450,000
Water Quality & Lab Fees	45,000
SCADA Maintenance Upgrade	30,000
Customer Care & Field Services	13,500
Resources & Facilities	<u>3,500</u>
Total	\$ 1,042,000

RATE SETTING

WATER RATES

BBWD's water rate structure is comprised of three components:

- **Service Charges** help cover account servicing and maintenance costs
- **Thresholds** determine the amount of water sold at each price level
- **Tiers** determine the cost for water at each tier

WATER BILL COMPONENTS

Big Bend Water District
1520 Thomas Edison Drive, Laughlin, NV 89029
702-298-3113 (Phone) 702-298-3984 (Fax)
Monday to Friday 7:00 a.m. - 4:30 p.m.
www.BigBendWaterDistrict.com

LAUGHLIN CUSTOMER
1234 MAIN STREET
LAUGHLIN, NV 89029

Account#: 000001
Billing Date: 07/14/2017
Due Date: 08/05/2017

Service Address: 1234 MAIN STREET

Readings:
Previous Reading: 292,000
Current Reading: 299,000
Usage: 7,000

Charges:
Water \$18.90
Service \$7.10

Notes:
Due date applies to current charges only. Past due balances, if any, are due now. Credit balances appear in parenthesis.

Previous Balance \$0.00
Total by due date: \$26.00
Total after due date: \$26.95

Return this portion with your payment

Account #: 000001
Name: LAUGHLIN CUSTOMER
Service Address: 1234 MAIN STREET

Billing Date: 07/14/2017
Due Date: 08/05/2017

Total by due date: \$26.00
Total after due date: \$26.95

METER READING INFO:

Previous Reading: 292,000
Current Reading: 299,000
Usage: 7,000

WATER CHARGES:

Water: \$18.90
Service: \$ 7.10

Total by Due Date: \$26.00
Total After Due Date: \$26.95

WATER RATES

Meter Size	Service Charge (Monthly)	Rate Tier (Monthly)		Consumption Tier Rate (Per 1,000 gal)
		Non-SFR	SFR	
5/8" & 3/4"	\$7.10	40,000 40,000+	15,000 15,000+	\$2.70 \$3.38
1"	\$7.45	90,000 90,000+	60,000 60,000+	\$2.70 \$3.38
1.5"	\$9.60	180,000 180,000+	120,000 120,000+	\$2.70 \$3.38
2"	\$14.05	900,000 900,000+	150,000 150,000+	\$2.70 \$3.38
3"	\$16.40	1,800,000 1,800,000+	300,000 300,000+	\$2.70 \$3.38
4"	\$22.90	2,200,000 2,200,000+	400,000 400,000+	\$2.70 \$3.38
6"	\$34.00	3,500,000 3,500,000+		\$2.70 \$3.38

Water rates per 1,000 gallons are the same for all customers.

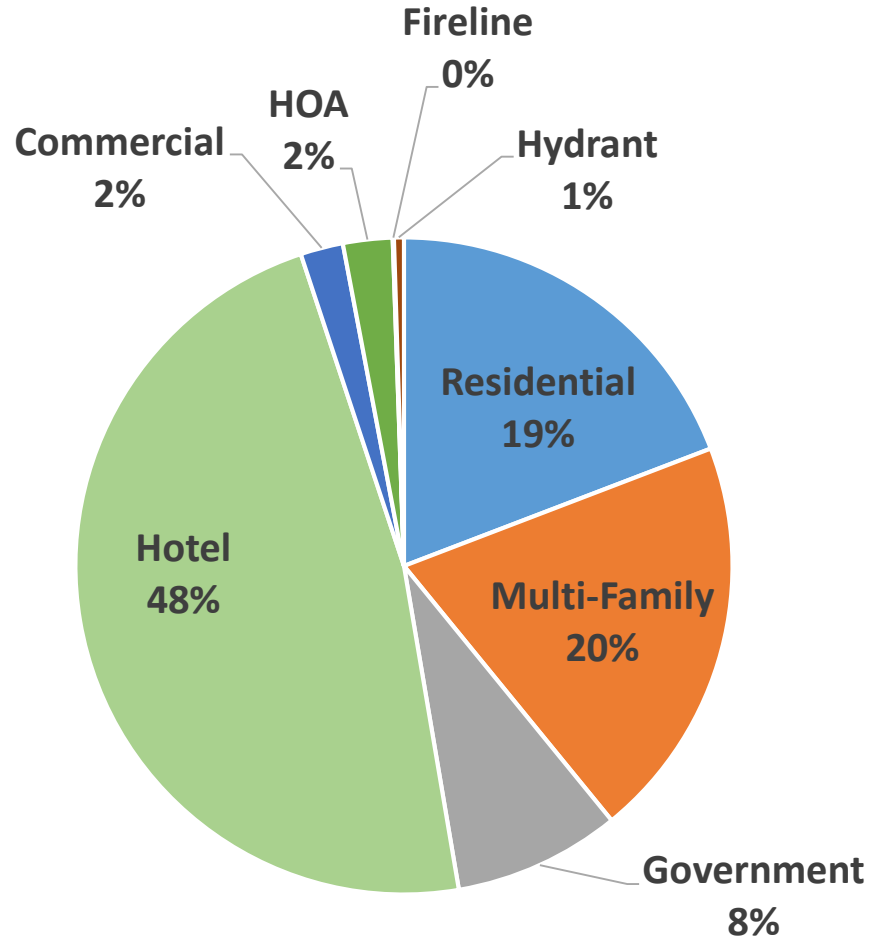
Thresholds are different for single family residential homes and non-single family residential.

OTHER WATER RATES

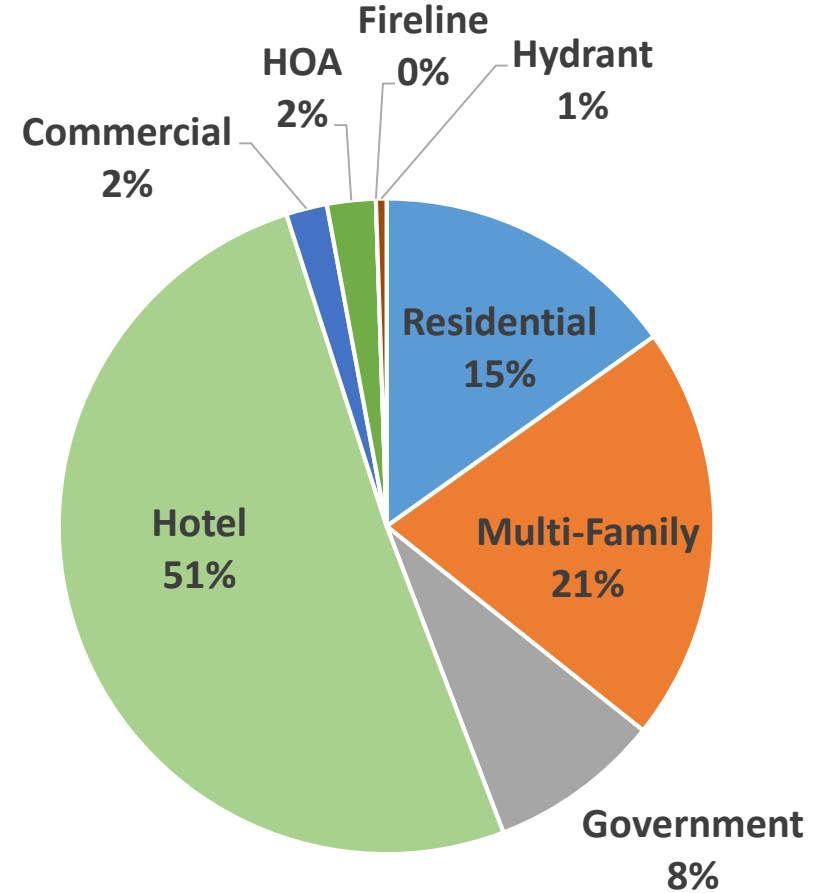
**Some customer bills include additional service charges
to reflect additional infrastructure**

- **BBWD Fireline**
Assessed to customers with fireline meters to maintain infrastructure necessary to ensure adequate fire protection
- **Backflow Service Charge**
Assessed to customers with backflow devices

REVENUE VERSUS CONSUMPTION



Revenue



Water Consumption

SAMPLE CUSTOMER MONTHLY BILLS

Customer Type	Meter Information	Average Consumption (kGal)	30-Day Bill Current Rates
Single Family Residential – Typical	One 5/8"	7	\$ 26.00
Multi-family Residential <i>Crown Point Apartments</i>	Two 2" Meters One 6" Meter One 10" Meter	5,442	15,987.06
Elementary School <i>Bennett Elementary</i>	Two 2" Meters One 4" Fire Meter	536	1 ,498.20
Shopping Center <i>El Mirage</i>	One 8" Meter One 8" Backflow	299	934.00
Shopping Center <i>Outlet Mall</i>	One 2" Meter One 8" Fire Meter	483	1 ,371.95
Restaurant <i>Gilligans</i>	One 1" Meter	18	56.05
Non Profit <i>St. John Catholic Church</i>	One 1.5" Meter One 5/8" Meter	22	76.10
Non Profit <i>American Legion Post</i>	One 2" Meter	20	68.05

SAMPLE CUSTOMER MONTHLY BILLS

Customer Type	Meter Information	Average Consumption (kGal)	30-Day Bill Current Rates
Gaming Resort <i>Colorado Belle</i>	Two 6" Meters Two 10" Fire Meters	5,362	\$ 14,725.40
Public Building <i>Laughlin Library</i>	One 2" Meter One 6" Fire Meter	118	366.65
Park <i>Heritage Park</i>	One 8" Fire Meter One 8" Backflow	1,051	2 ,987.30
Small Business <i>Regency Casino</i>	One 4" Meter One 8" Fire Meter	50	211.70

RATE MODEL

The Rate Model will include the 10-year projected uses of funds from the following:

Capital Costs

- ✓ 10-Year Capital Program

Operating & Maintenance

- ✓ Payroll & Related
- ✓ Energy
- ✓ Operating Expenses

Debt Service

- ✓ Currently issued debt is scheduled to retire in 2024-25

Funding Reserves

- ✓ Rebuilding reserves (90 days of operating & maintenance costs, or 25% annual O&M costs)

RATE MODEL ASSUMPTIONS

Item	Rate Model Assumptions
Capital Needs	\$9.2 million over 10 years, with annual inflation at 2.2% (25-year average of CPI-W)
Operating and Maintenance	Increasing 2.2 percent annually (25-year average of CPI-W)
Payroll and Related	Increasing 3.5 percent annually (Recent trend)
Reserve Target	25% of Annual Operations & Maintenance costs in 10 years
Tiered Consumption	0.8% Account growth (Average Annual Account Growth)
Service Charge	0.8% Account growth (Average Annual Account Growth)
Sales Tax	Increasing 2.2 percent annually (25-year average of CPI-W)
System Development Charges	\$45,000 annually based on growth rate and current rate
Interest Income	Projected 0.7%
Price Elasticity	-0.34 coefficient

RATE SCENARIOS

Scenario 1

\$0.8 m in additional funding

4-Year Phase In

CPI-indexed rate

Water rates fund gap

Scenario 2

\$5.8 m in additional funding

4-Year Phase In

CPI-indexed rate

Water rates fund gap

SCENARIO REVIEW: 1A

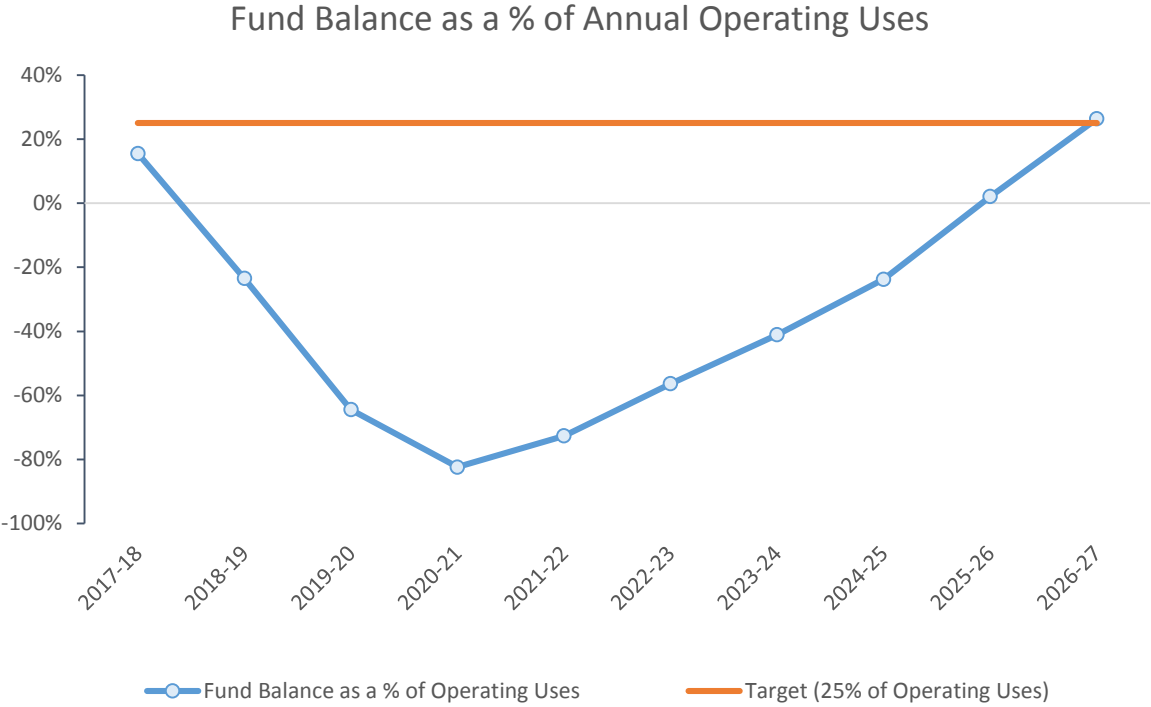
Model Variable	Model Input
Capital Program Funding Sources	Pay-Go (No debt issued) \$800,000 grants received No other funding sources
Phased-In Timeframe	4 Years
CPI-Indexed?	Yes

Model Results:

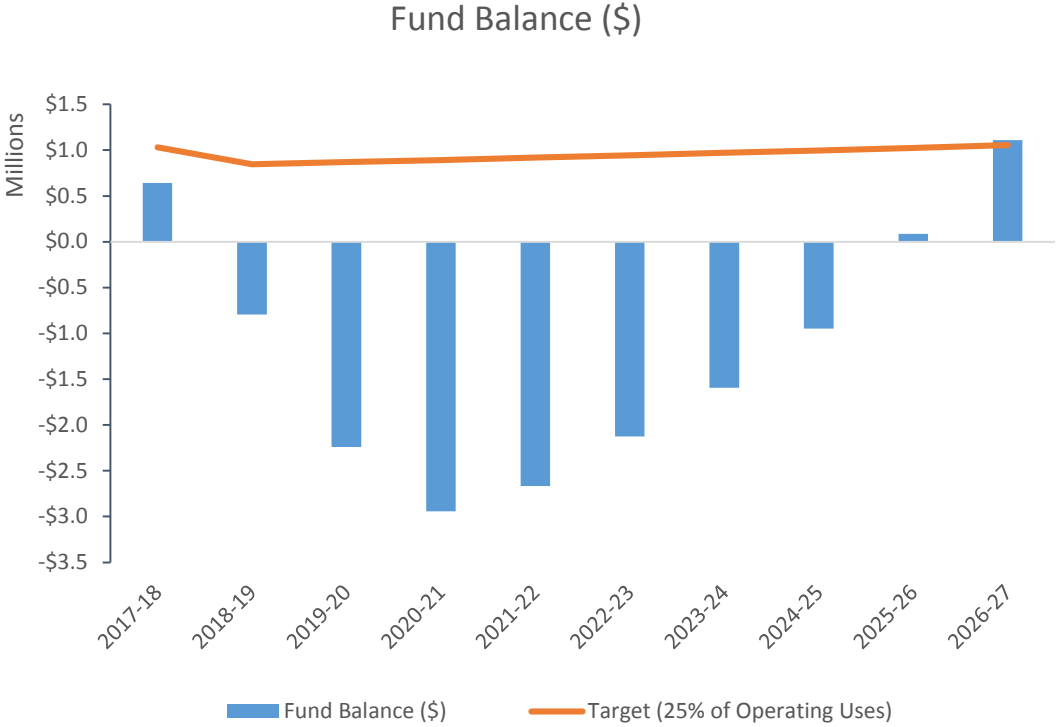
Year of Implementation	2018	2019	2020	2021	2022 +
Increase to Water Rates & Service Charge	15.2%	15.2%	15.2%	15.2%	CPI

SCENARIO REVIEW: 1A

1A: Fund Balance as a Percentage of Annual Operating Uses



1A: Fund Balance



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

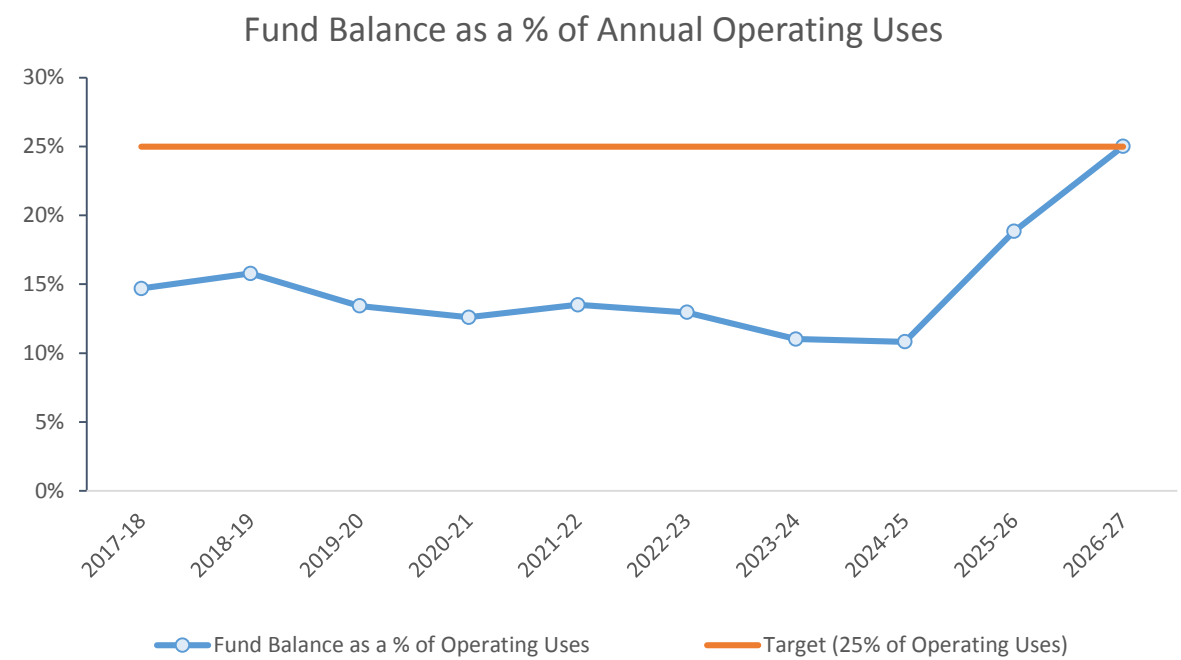
Model Variable	Model Input
Capital Program Funding Sources	Issue debt for full program \$800,000 grants received No other funding sources
Phased-In Timeframe	4 Years
CPI-Indexed?	Yes

Model Results:

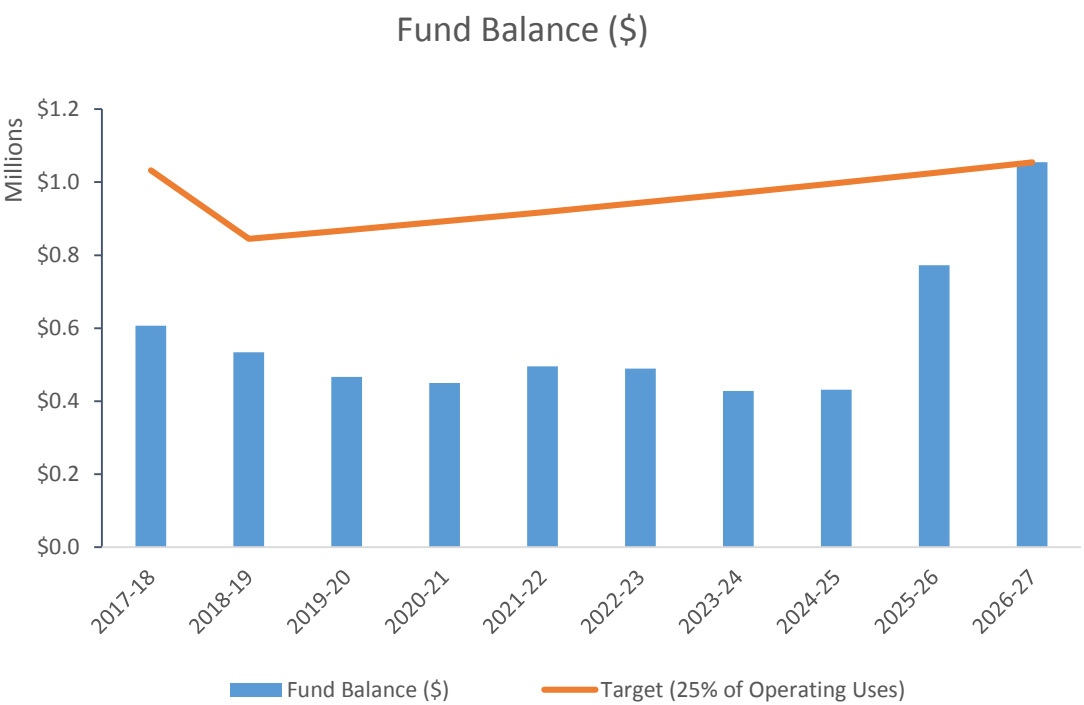
Year of Implementation	2018	2019	2020	2021	2022 +
Increase to Water Rates & Service Charge	9.4%	9.4%	9.4%	9.4%	CPI

SCENARIO REVIEW: 1B

1B: Fund Balance as a Percentage of Annual Operating Uses



1B: Fund Balance



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

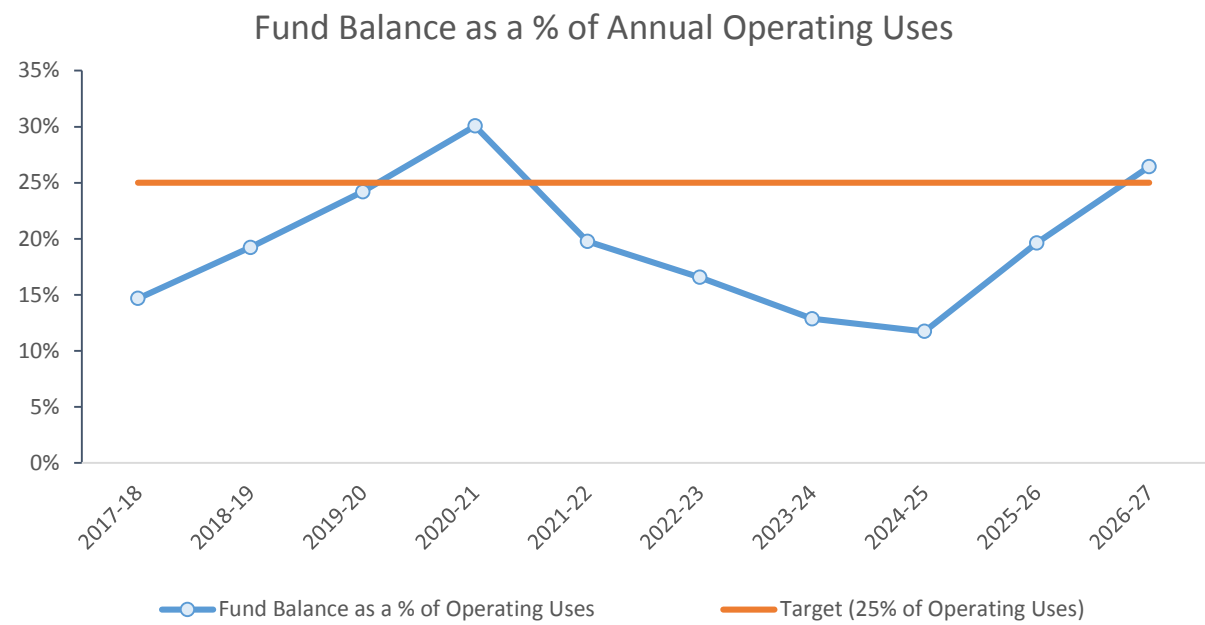
Model Variable	Model Input
Capital Program Funding Sources	Pay-Go, no debt issued \$800,000 grants received \$5 million in Fort Mohave funds
Phased-In Timeframe	4 Years
CPI-Indexed?	Yes

Model Results:

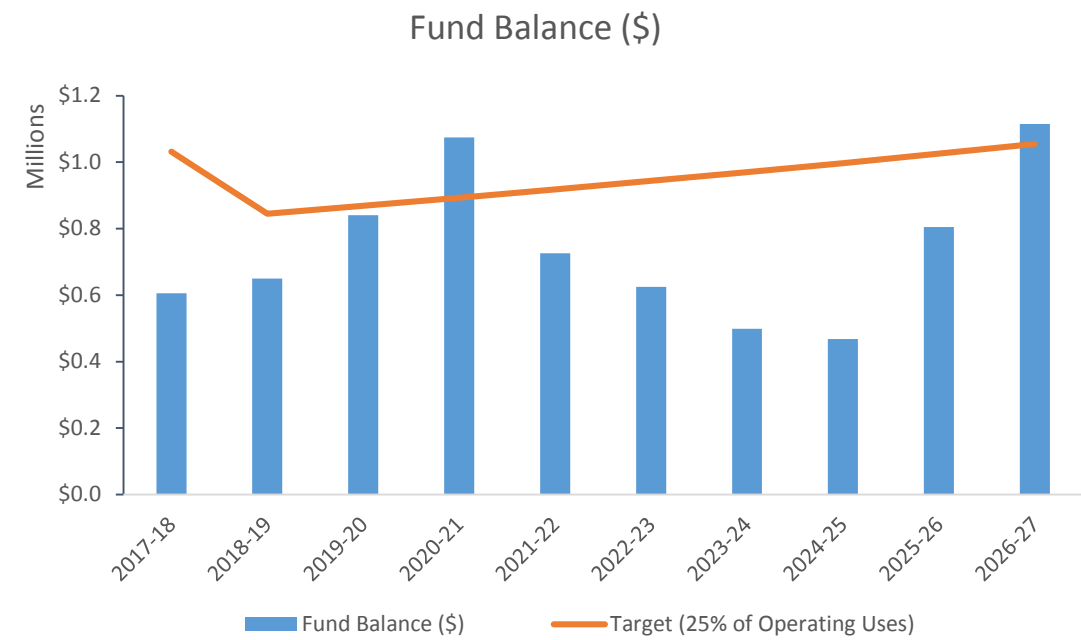
Year of Implementation	2018	2019	2020	2021	2022 +
Increase to Water Rates & Service Charge	9.2%	9.2%	9.2%	9.2%	CPI

SCENARIO REVIEW: 2A

2A: Fund Balance as a Percentage of Annual Operating Uses



2A: Fund Balance



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

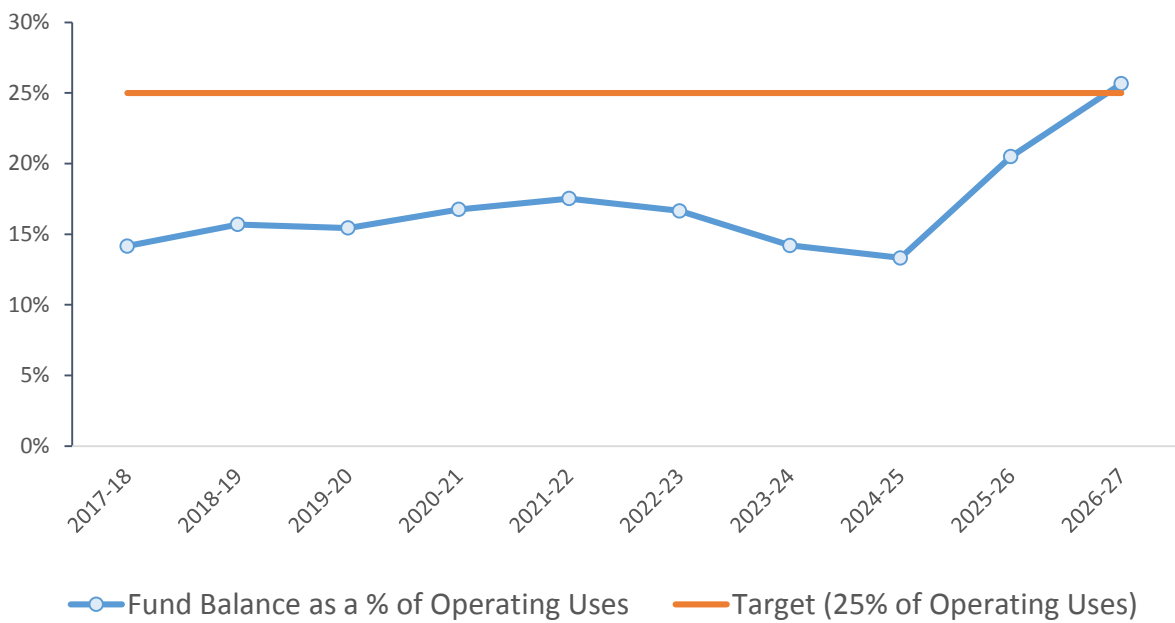
Model Variable	Model Input
Capital Program Funding Sources	Debt issued for remainder \$800,000 grants received \$5 million in Fort Mohave funds
Phased-In Timeframe	4 Years
CPI-Indexed?	Yes

Model Results:

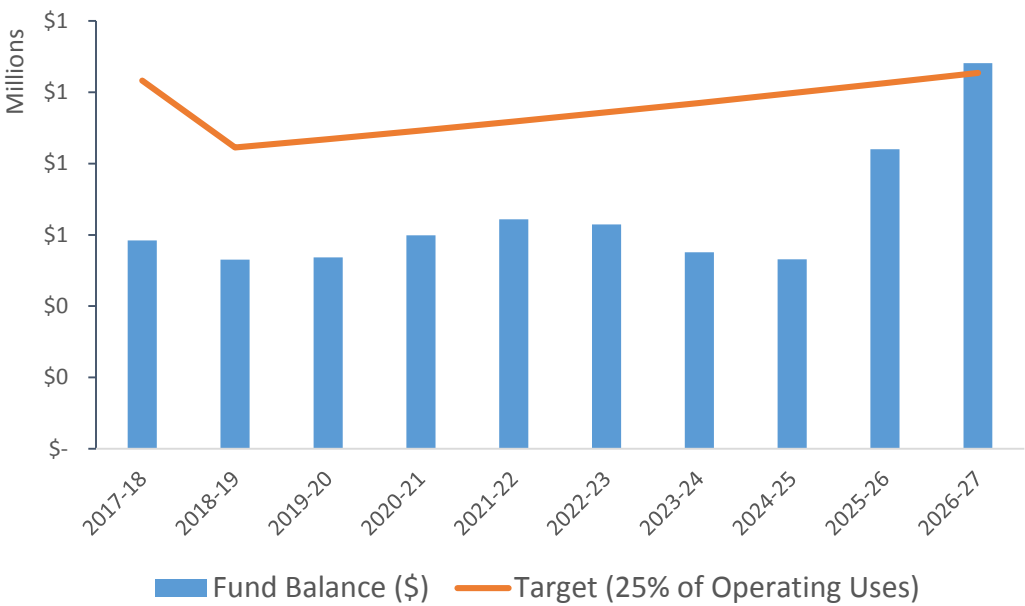
Year of Implementation	2018	2019	2020	2021	2022 +
Increase to Water Rates & Service Charge	5.7%	5.7%	5.7%	5.7%	CPI

SCENARIO REVIEW: 2B

2B: Fund Balance as a Percentage of Annual Operating Uses



2B: Fund Balance



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 SCENARIO SUMMARY

Scenario	Additional Funding Sources	Financing	Rate Increase
1A	\$0.8 million	Pay-Go	15.2%
1B	\$0.8 million	Issue Debt	9.4%
2A	\$5.8 million	Pay-Go	9.2%
2B	\$5.8 million	Issue Debt	5.7%

NEXT MEETING

August 29 at 9:00 a.m.

Tentative Discussion Topics:

Rate scenarios based on committee feedback