

AGENDA

JOINT CITY COUNCIL / WATER COMMISSION
SPECIAL WORK SESSION
MONDAY
OCTOBER 23, 2023

STAFF CONFERENCE ROOM
CITY HALL
211 WEST ASPEN AVENUE
2:30 P.M.

All City Council Meetings are live streamed on the city's website
(<https://www.flagstaff.az.gov/1461/Streaming-City-Council-Meetings>)

*****PUBLIC COMMENT*****

Verbal public comments may be given through virtual public comment or in-person

If you want to provide an online comment during the meeting, use the link below.

VIRTUAL PUBLIC COMMENT

Written comments may be submitted to publiccomment@flagstaffaz.gov. All comments submitted via email will be considered written comments and will be documented into the record as such.

1. Call to Order

NOTICE OF OPTION TO RECESS INTO EXECUTIVE SESSION

Pursuant to A.R.S. §38-431.02, notice is hereby given to the members of the City Council and to the general public that, at this work session, the City Council may vote to go into executive session, which will not be open to the public, for discussion and consultation with the City's attorneys for legal advice on any item listed on the following agenda, pursuant to A.R.S. §38-431.03(A)(3).

2. Roll Call

NOTE: One or more Councilmembers or Commission Members may be in attendance through other technological means.

COMMISSIONER RIEGELMAN
COMMISSIONER LOVERICH
COMMISSIONER ALTER
COMMISSIONER BILLS

COMMISSIONER DILDAY
COMMISSIONER NAUMAN
COMMISSIONER RUDELL

MAYOR DAGGETT
VICE MAYOR ASLAN
COUNCILMEMBER HARRIS
COUNCILMEMBER HOUSE

COUNCILMEMBER MATTHEWS
COUNCILMEMBER MCCARTHY
COUNCILMEMBER SWEET

3. Pledge of Allegiance, Mission Statement, and Land Acknowledgement

MISSION STATEMENT

The mission of the City of Flagstaff is to protect and enhance the quality of life for all.

LAND ACKNOWLEDGEMENT

The Flagstaff City Council humbly acknowledges the ancestral homelands of this area's Indigenous nations and original stewards. These lands, still inhabited by Native descendants, border mountains sacred to Indigenous peoples. We honor them, their legacies, their traditions, and their continued contributions. We celebrate their past, present, and future generations who will forever know this place as home.

4. Discussion and Direction on the Rate Study Financial Plans

Direction on a financial plan for each water, wastewater, and reclaimed water fund.

5. Adjournment

CERTIFICATE OF POSTING OF NOTICE

The undersigned hereby certifies that a copy of the foregoing notice was duly posted at Flagstaff City Hall on _____, at _____ a.m./p.m. in accordance with the statement filed by the City Council with the City Clerk.

Dated this _____ day of _____, 2023.

Stacy Saltzburg, MMC, City Clerk

THE CITY OF FLAGSTAFF ENDEAVORS TO MAKE ALL PUBLIC MEETINGS ACCESSIBLE TO PERSONS WITH DISABILITIES. With 48-hour advance notice, reasonable accommodations will be made upon request for persons with disabilities or non-English speaking residents. Please call the City Clerk (928) 213-2076 or email at stacy.saltzburg@flagstaffaz.gov to request an accommodation to participate in this public meeting.

NOTICE TO PARENTS AND LEGAL GUARDIANS: Parents and legal guardians have the right to consent before the City of Flagstaff makes a video or voice recording of a minor child, pursuant to A.R.S. § 1-602(A)(9). The Flagstaff City Council meetings are live-streamed and recorded and may be viewed on the City of Flagstaff's website. If you permit your child to attend/participate in a televised Council meeting, a recording will be made. You may exercise your right not to consent by not allowing your child to attend/participate in the meeting.

**CITY OF FLAGSTAFF
STAFF SUMMARY REPORT**

To: The Honorable Mayor and Council
From: Erin Young, Water Resources Manager
Co-Submitter: Shannon Jones
Date: 10/18/2023
Meeting Date: 10/23/2023



TITLE:

Discussion and Direction on the Rate Study Financial Plans

DESIRED OUTCOME:

Direction on a financial plan for each water, wastewater, and reclaimed water fund.

EXECUTIVE SUMMARY:

City Council approved a contract with Stantec in March 2023 to complete a Water, Reclaimed Water, and Wastewater Cost of Service, Rates, and Fees Study (Rate Study). The Rate Study team is currently addressing Task 2 of 7 of the scope – 10-Year Financial Plans. The Water Services Capital Improvement Plan (CIP) project list and three financial planning scenarios were presented for each of the three funds in water, wastewater, and reclaimed water to City Council at the City Council Retreat on October 12. The Water Commission heard the same presentation on October 19 with the addition of a new alternative scenario based on input from City Council at the retreat. This joint meeting allows the City Council and the Water Commission to discuss the final set of scenarios and provide Staff and Stantec with direction on a preferred financial plan for each of the three funds.

Council direction on Task 2 allows Stantec to prepare Tasks 3 and 4. Starting in November, Stantec will evaluate and present information on system demands and customer use patterns, different strategies for allocating costs across the customer classes, and ways to finance projects that help meet Council objectives.

Links to the master planning documents can be accessed below:

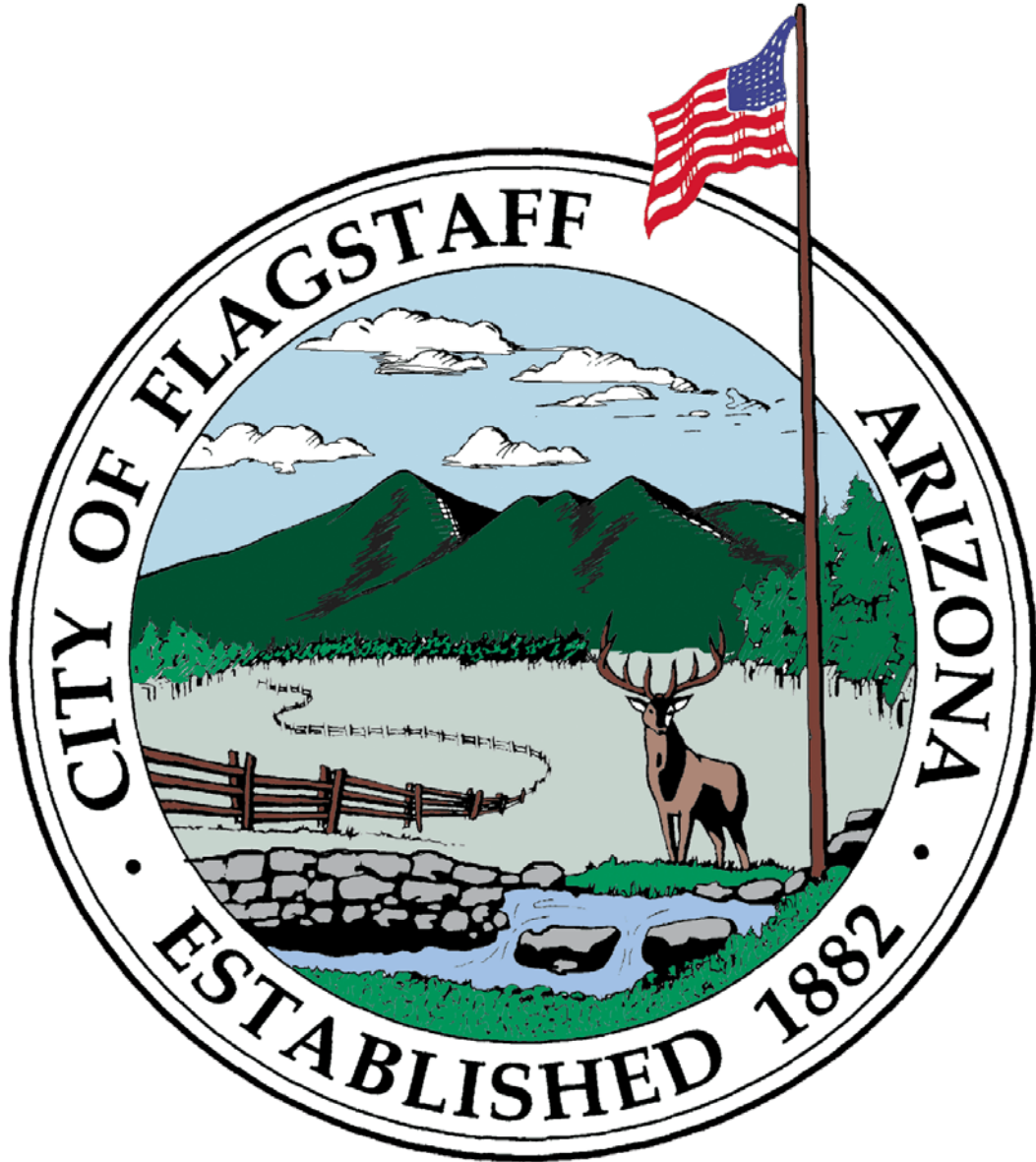
<https://www.flagstaff.az.gov/DocumentCenter/View/77507/Final-Sewer-Master-Plan-031315>

<https://www.flagstaff.az.gov/DocumentCenter/View/77508/City-of-Flagstaff--Water-Infrastructure-Master-Plan---Final-Report---2014>

INFORMATION:

The Rate Study is a nine-month process to assess the revenues currently collected for water, wastewater, and reclaimed water services compared with the cost of service. During this time, the Water Commission and City Council will work through revenue requirements and strategies to fund these requirements in coordination with information from public outreach efforts. Stantec aims to bring a final proposal for rate adjustments to City Council starting in April 2024, with a final public hearing in June 2024.

Attachments: [Presentation](#)
[CIP Matrix](#)
[Stantec Rate Study CIP Scenarios](#)
[Stantec Rate Study CIP Timeline](#)
[Supplemental Information](#)
[Financial Considerations](#)



City of Flagstaff, AZ

Water, Reclaimed Water, & Wastewater Cost-of-Service, Rates & Fees Study

*Flagstaff Joint Water Commission & City Council Work Session
October 23, 2023*



Agenda

1. Review Scope & Policy Strategies
2. Financial Planning Scenarios Defined
3. Key Assumptions & Capital Funding
4. Preliminary Findings By Service
5. Discussion and Feedback



Communications and Outreach





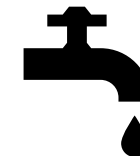
Communications and Outreach

Program Message: Keeping it Clean

(used as a key tag line in headers and banners of all materials)

Messaging elements:

- Fulfilling regulatory requirements.
- Keeping it flowing
- Providing high quality water for residents and businesses
- Reclaiming water for tomorrow
- Investing in efficiency

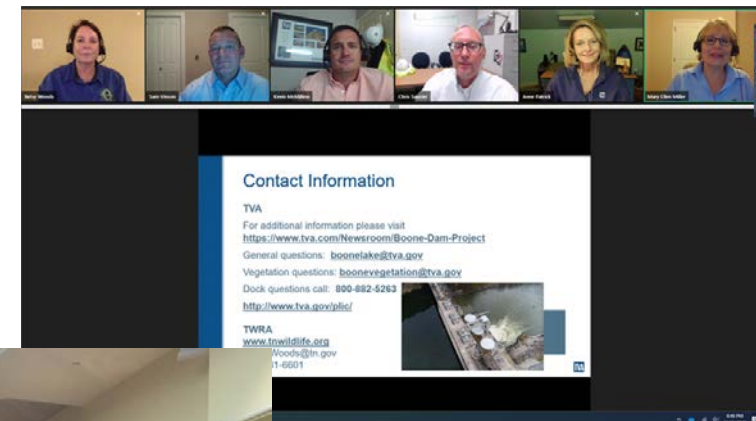




Meeting Platforms

1. Virtual Information Meetings

- Flagstaff at 100% broadband saturation for 25/3 Mbps or greater



2. In-person Meetings

- Presentation Style
- Drop-In



3. Dial-In

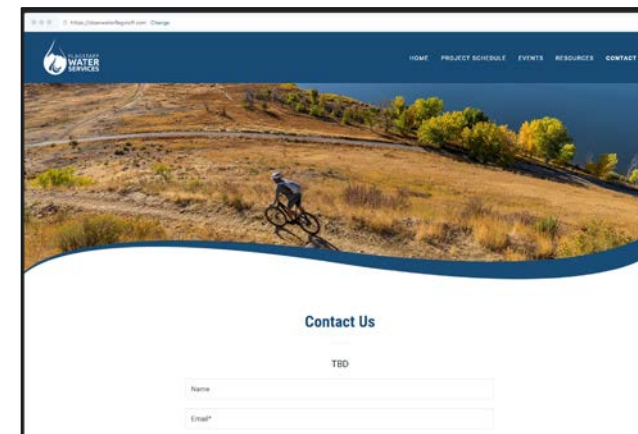
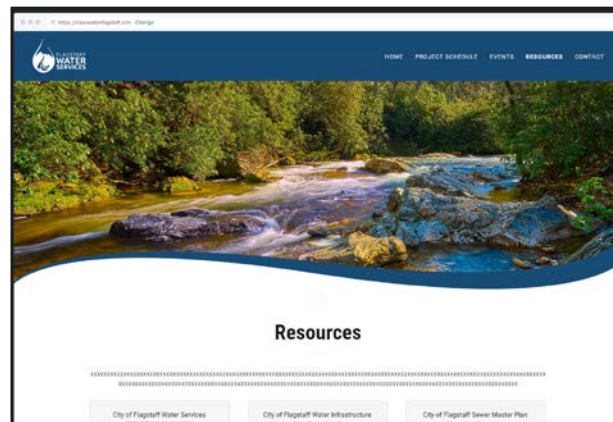
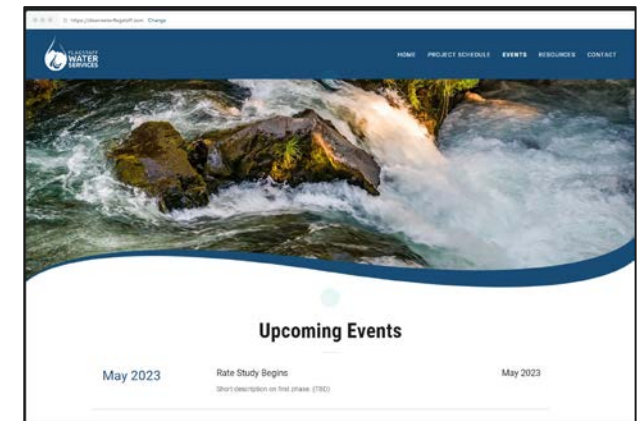
4. ESL Speakers





Project Website

<https://cleanwaterflagstaff.com>





Policy Strategies

- Strategy 1: Implement water & wastewater rates and charges that are legal, fair, and equitable through a cost-of-service study
- Strategy 2: Develop a Long-Range Financing Plan that sets forth the long-term funding needs of Water Services
- Strategy 3: Establish fees that cover the cost of service, ensuring the utility meets regulatory requirements
- Strategy 4: Discuss forward-thinking or new opportunities for how rates and pricing strategies can help achieve goals of the utility or City



Financial Planning Scenarios Defined

- Scenario 1: Consumer Price Index (CPI) Increase
 - Annual rate adjustments equal annual water and sewer rate CPI (July 2022 – July 2023)
 - 5% annual rate adjustments forecasted from FY25-FY33 to maintain target reserve balances, O&M levels, & capital project investments
- Scenario 2: Smooth Catch-up
 - 8.5% annual rate adjustments from FY25-FY29 to align with inflation since last rate increase (2020)
 - 5% annual rate adjustments forecasted from FY30-FY33 to maintain target reserve balances, O&M levels, & capital project investments
- Scenario 3: Full Funding
 - Rate adjustments needed to fully fund all O&M and capital needs
 - Identifies the difference between improvements and investments needed by Water Services and historical funding available
- Scenario 4: Alternative Option
 - Developed as a result of feedback received during Council Retreat on 10/12/23



Capital Improvement Program Levels (\$M)

		Approved CIP ¹	Approved + Informed CIP ²	Approved + Informed + Unfunded CIP ³
Water	<i>Annual Average</i>	\$13.1	\$19.7	\$20.8
	<i>Total CIP Funding FY24 – FY33</i>	\$130.7	\$196.9	\$207.9
Wastewater	<i>Annual Average</i>	\$8.7	\$10.0	\$12.5
	<i>Total CIP Funding FY24 – FY33</i>	\$86.7	\$99.5	\$124.6
Reclaimed	<i>Annual Average</i>	\$0.5	\$3.3	\$6.9
	<i>Total CIP Funding FY24 – FY33</i>	\$5.2	\$32.8	\$68.6

1. Conforms to anticipated revenues projected by City of Flagstaff (partial CIP list)
2. From complete CIP list informed by Master Plan recommended projects (e.g., Water Master Plan, Sewer Master Plan)
3. Project needs without identified funding source

CIP Handouts



Water Fund



Water Fund Scenario Results Summary

Scenarios	FY24-FY33 CIP Funding Level (\$M)	FY24	FY25	FY26	FY27	FY28	FY29	FY30-FY33 Annual
Consumer Price Index (CPI)	\$120	0.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Smooth Catch-Up	\$152	0.0%	8.5%	8.5%	8.5%	8.5%	8.5%	5.0%
Full Funding	\$208	0.0%	20.0%	20.0%	15.0%	10.0%	10.0%	5.0%
Alternative Option	\$208	0.0%	15.0%	15.0%	15.0%	15.0%	15.0%	5.0%

Alternative Option reflects Full Funding Scenario with level plan of annual rate increases

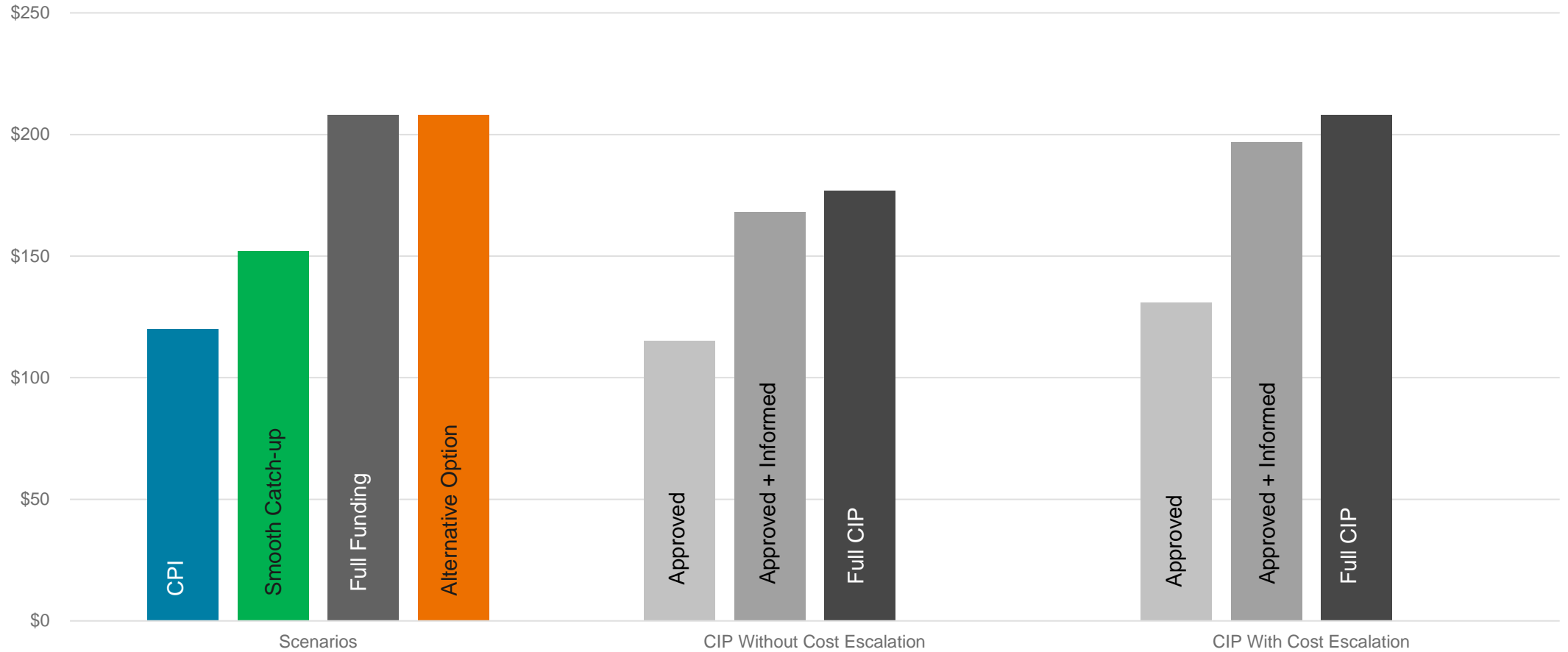


Water Fund Scenario Results Summary: 3/4" Typical Water Bill Impact (4KGAL), FY24-33

Scenarios	FY24-FY33 CIP Funding Level (\$M)	FY24	FY25	FY26	FY27	FY28	FY29	FY30-FY33 Total
Consumer Price Index (CPI)	\$120	\$0.00	\$1.54	\$1.62	\$1.71	\$1.79	\$1.88	\$8.47
Smooth Catch-Up	\$152	\$0.00	\$2.62	\$2.85	\$3.08	\$3.35	\$3.62	\$9.99
Full Funding	\$208	\$0.00	\$6.19	\$7.43	\$6.66	\$5.12	\$5.64	\$13.37
Alternative Option	\$208	0.0%	\$4.66	\$5.32	\$6.12	\$7.04	\$8.11	\$13.40



Comparison of Scenario Funding vs 10-year CIP

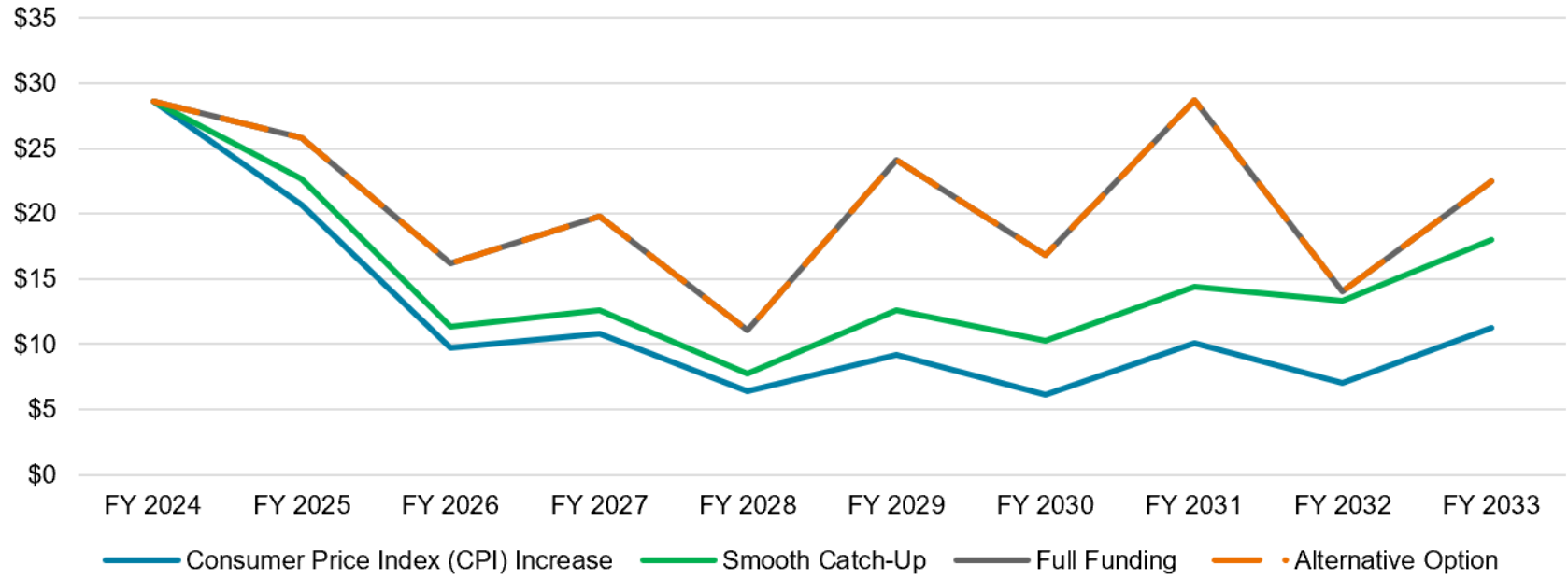




Water Fund CIP Expenditures FY24-33

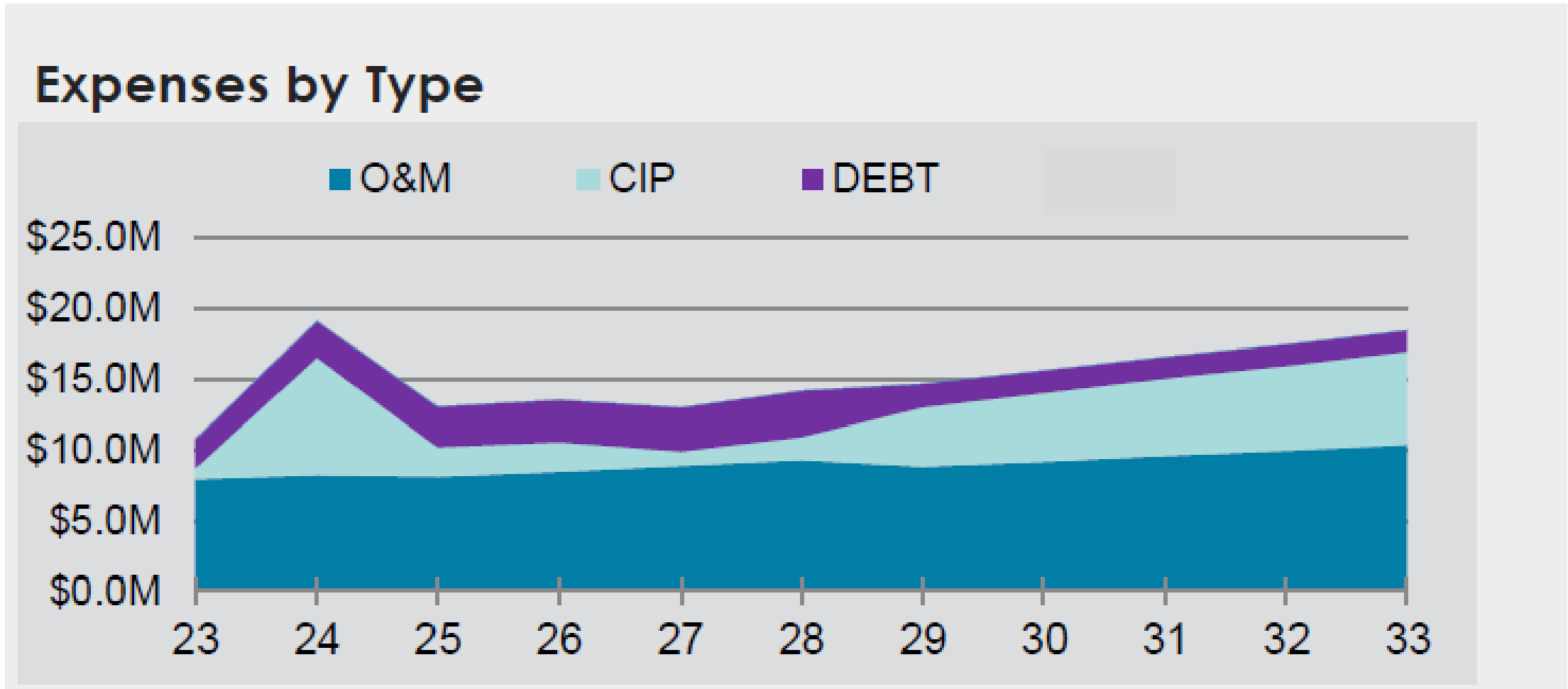
Scenarios	FY24-FY33 CIP Funding Level (\$M)
Consumer Price Index (CPI)	\$120
Smooth Catch-Up	\$152
Full Funding	\$208
Alternative Option	\$208

Capital Spending (\$M)





Water Fund – Alternative Option



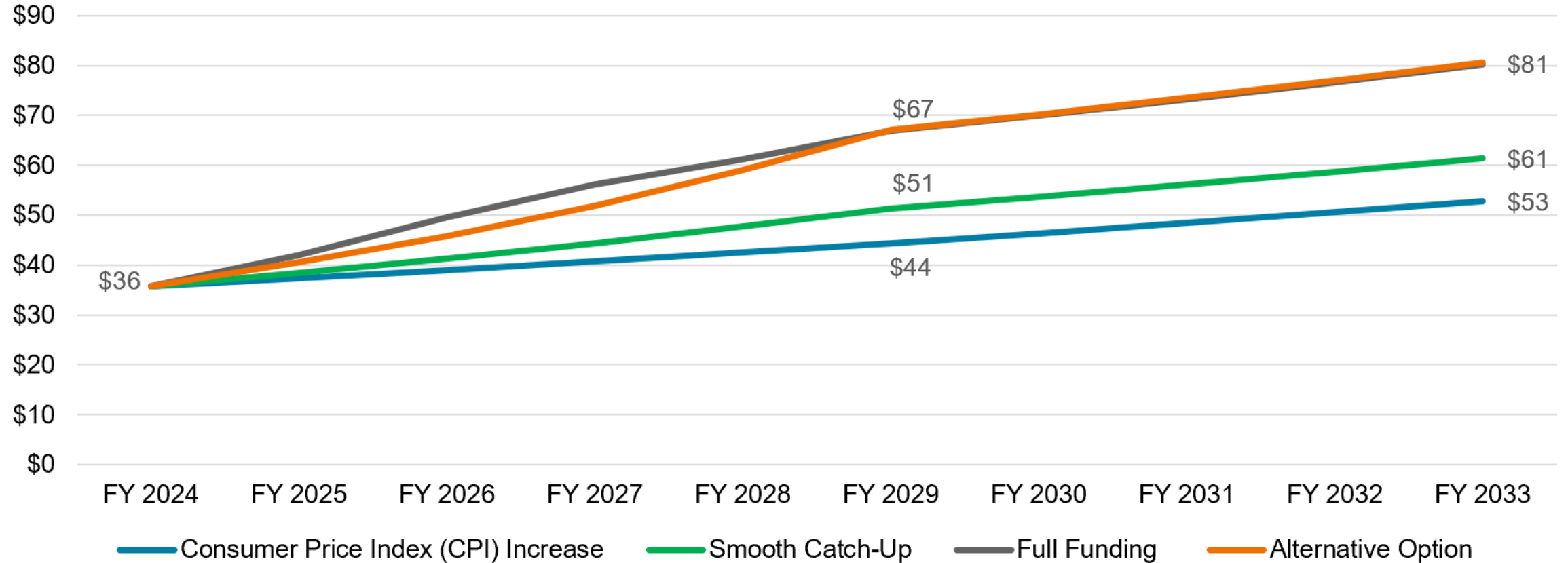


Typical Residential Water Bill

WATER, RECLAIMED WATER, & WASTEWATER STUDY

Residential, 3/4" Typical Bill (4 KGAL)

DRAFT – FOR DISCUSSION PURPOSES



*Typical Bill calculations reflect across-the-board increases which may differ across customer classes after cost-of-service & rate design tasks.

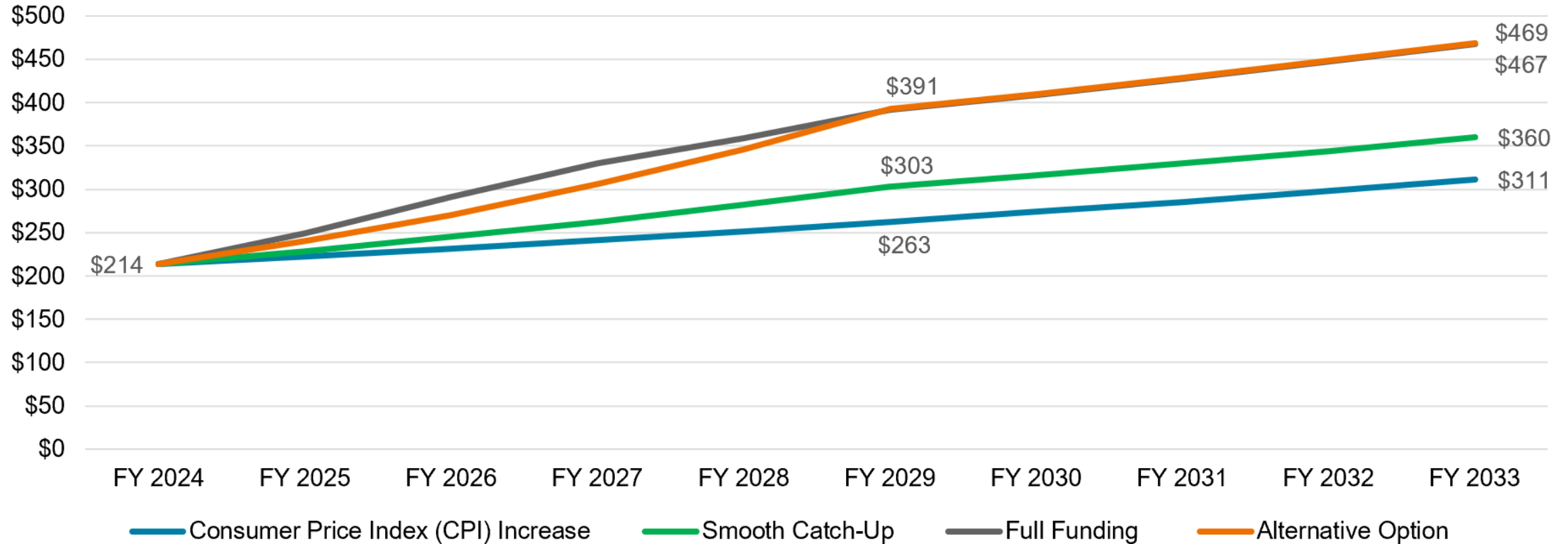


Example Commercial Water Bill

WATER, RECLAIMED WATER, & WASTEWATER STUDY

Commercial, 2" Typical Bill (30 KGAL)

DRAFT – FOR DISCUSSION PURPOSES



*Typical Bill calculations reflect across-the-board increases which may differ across customer classes after cost-of-service & rate design tasks.

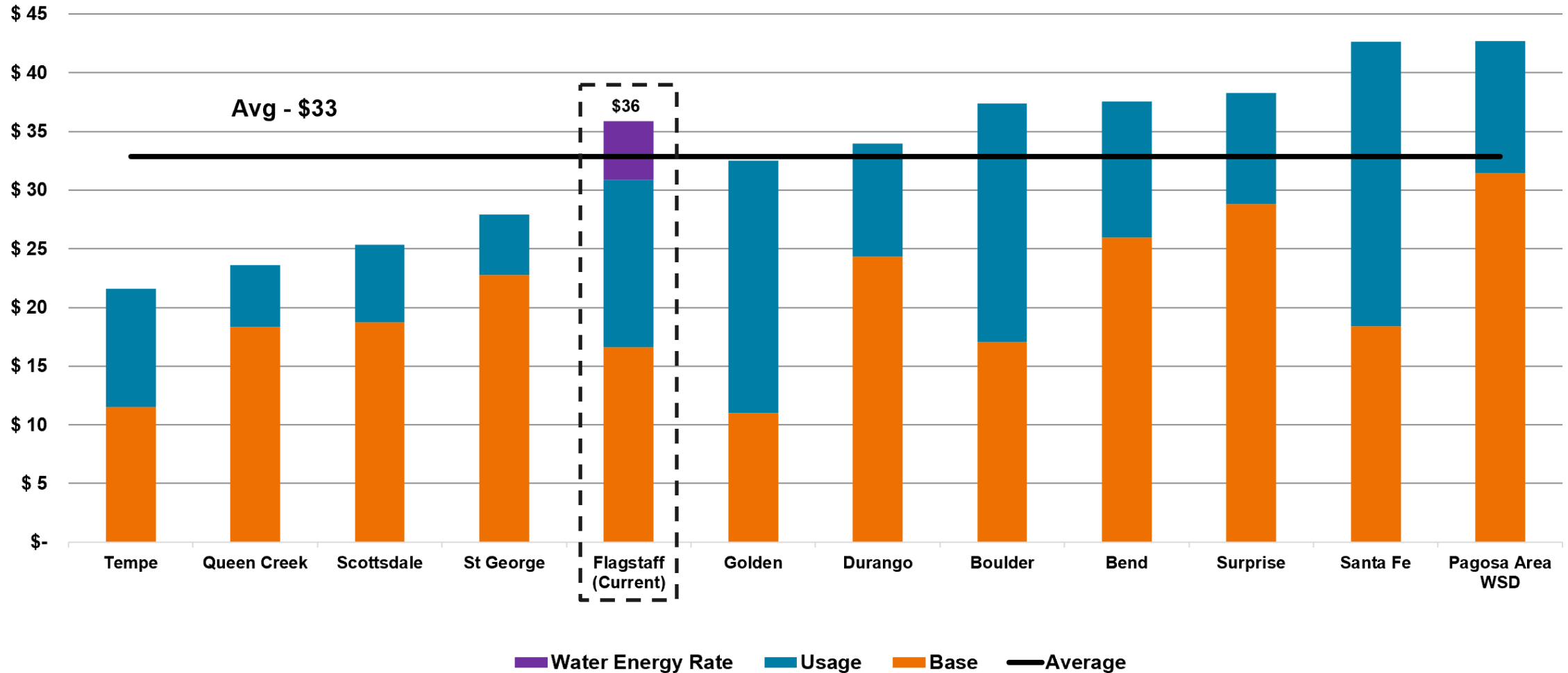


Residential Bill Comparisons - Water

WATER, RECLAIMED WATER, & WASTEWATER STUDY

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FY 2023 Monthly Residential Water Base and Usage Rate Survey at 4 kgal



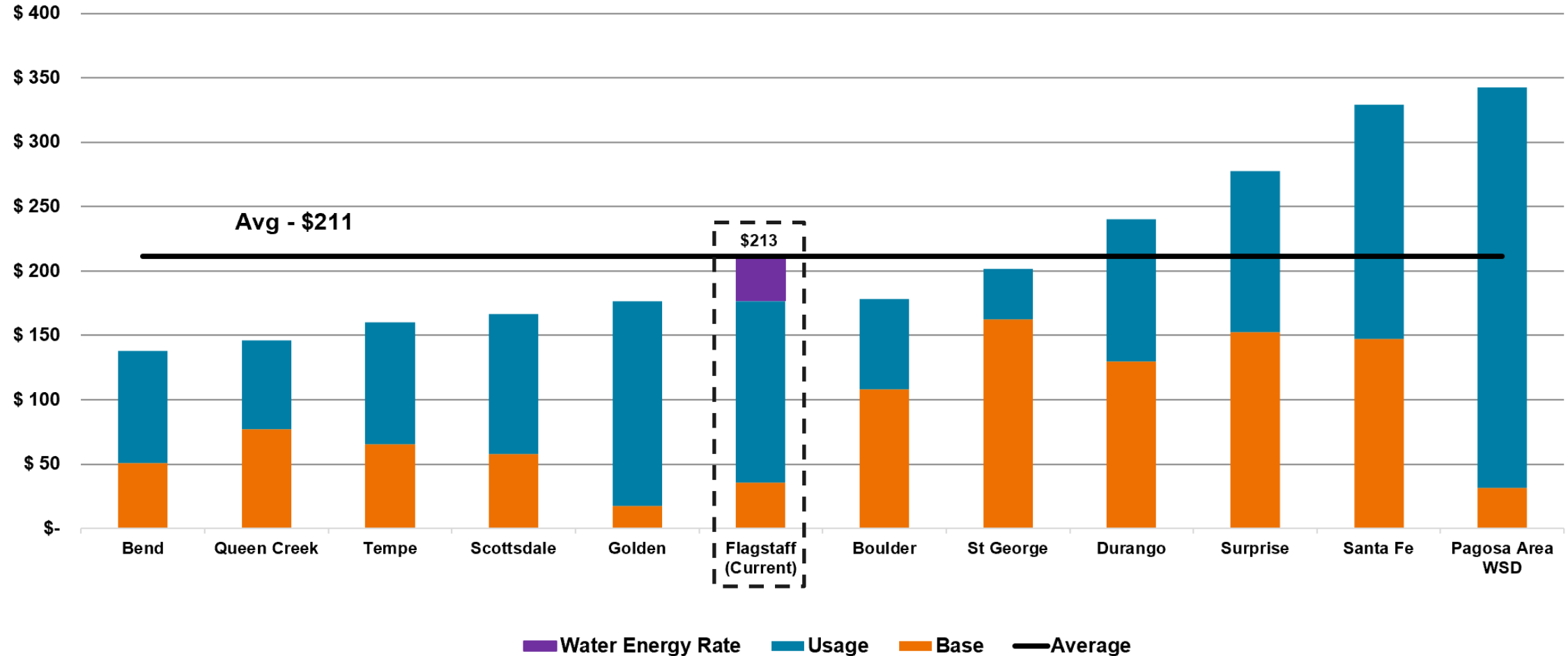


Commercial Bill Comparisons - Water

FY 2023 Monthly Commercial Water Base and Usage Rate Survey at 30,000 gallons

FY 2023 Monthly Non-residential 2" Water Base and Usage Rate Survey at 30 kgal

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Discussion



Wastewater Fund



Wastewater Fund Scenario Results Summary

Scenarios	FY24-FY33 CIP Funding Level (\$M)	FY24	FY25	FY26	FY27	FY28	FY29	FY30-FY33 Annual
Consumer Price Index (CPI)	\$72	0.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Smooth Catch-Up	\$90	0.0%	8.5%	8.5%	8.5%	8.5%	8.5%	5.0%
Full Funding	\$125	0.0%	70.0%	70.0%	0.0%	0.0%	0.0%	0.0%
Alternative Option	\$139	0.0%	25.0%	25.0%	15.0%	10.0%	5.0%	5.0%

Alternative Option reflects \$9M deferral & escalation of Unfunded CIP in Full Funding Scenario with more debt financing

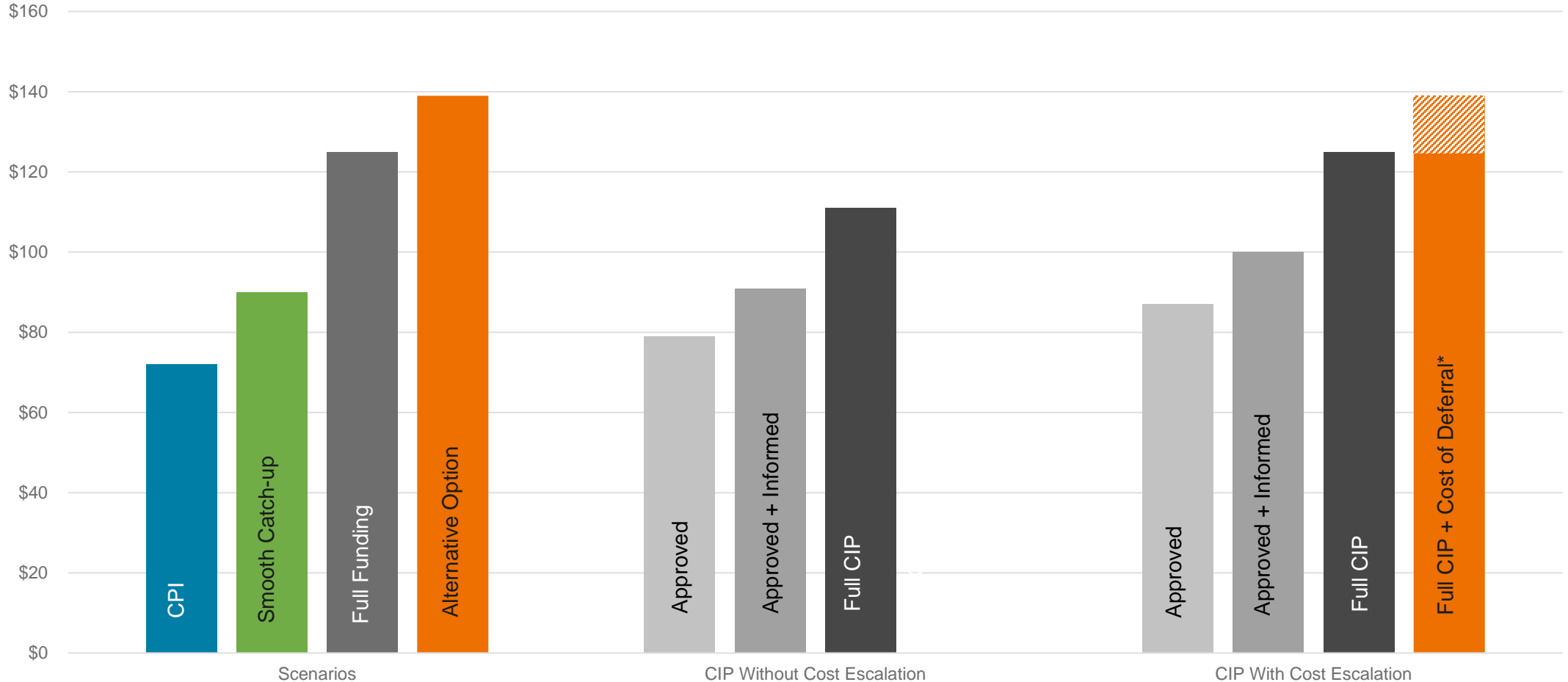


Wastewater Fund Scenario Results Summary: 3/4" Typical Wastewater Bill Impact (4KGAL), FY24-33

Scenarios	FY24-FY33 CIP Funding Level (\$M)	FY24	FY25	FY26	FY27	FY28	FY29	FY30-FY33 Total
Consumer Price Index (CPI)	\$72	\$0.00	\$1.08	\$1.12	\$1.20	\$1.24	\$1.32	\$5.92
Smooth Catch-Up	\$90	\$0.00	\$1.80	\$1.96	\$2.12	\$2.32	\$2.52	\$6.88
Full Funding	\$125	\$0.00	\$15.00	\$25.48	\$0.00	\$0.00	\$0.00	\$0.00
Alternative Option	\$139	\$0.00	\$5.36	\$6.68	\$5.00	\$3.84	\$2.12	\$9.56



Comparison of Scenario Funding vs 10-year CIP

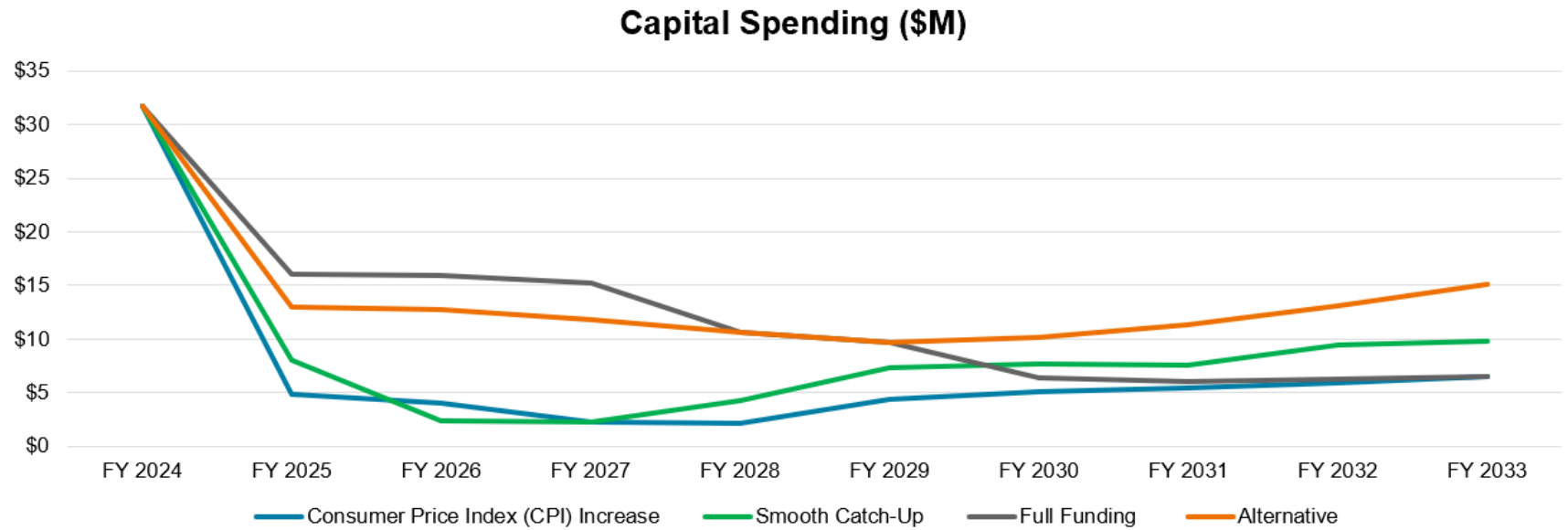


*Deferring \$9 million in CIP project costs results in higher funding requirements due to escalation



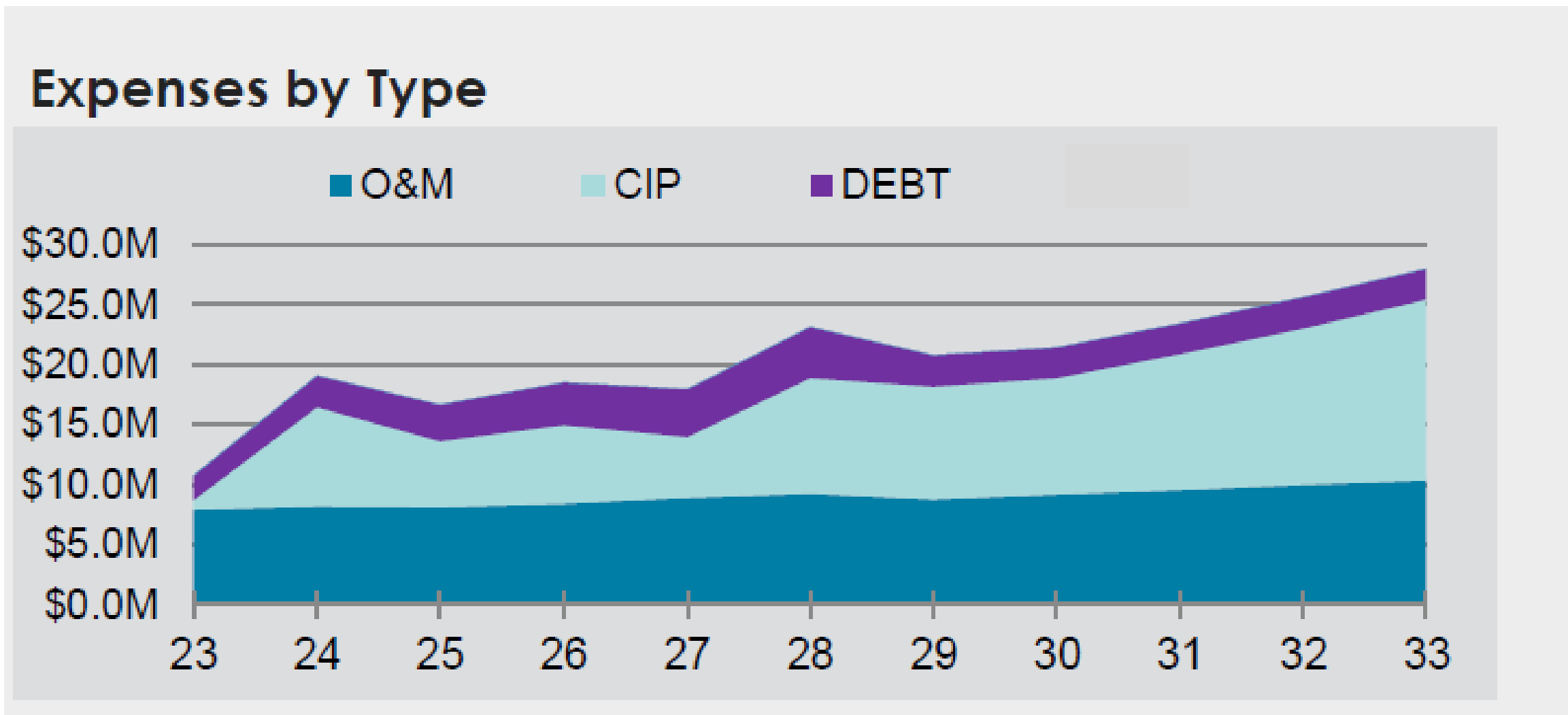
Wastewater Fund CIP Expenditures FY24-33

Scenarios	FY24-FY33 CIP Funding Level (\$M)
Consumer Price Index (CPI)	\$72
Smooth Catch-Up	\$90
Full Funding	\$125
Alternative Option	\$139





Wastewater Fund – Alternative Option



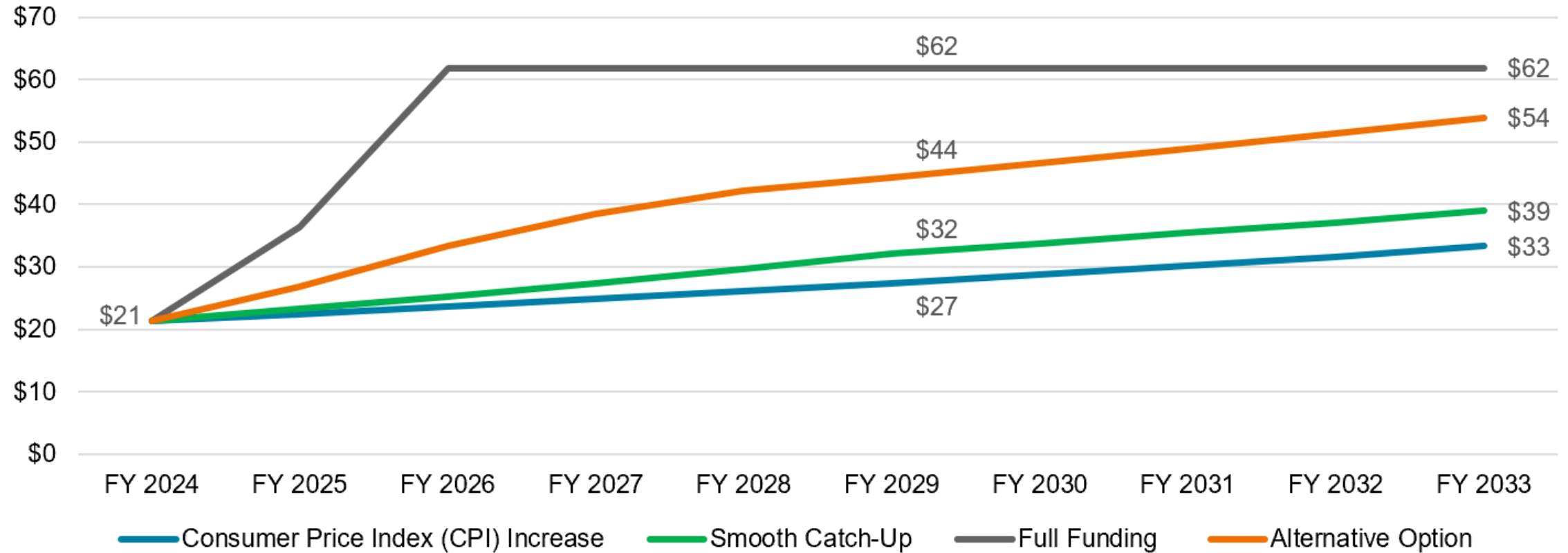


Typical Residential Wastewater Bill

WATER, RECLAIMED WATER, & WASTEWATER STUDY

Residential, 3/4" Typical Bill (4 KGAL)

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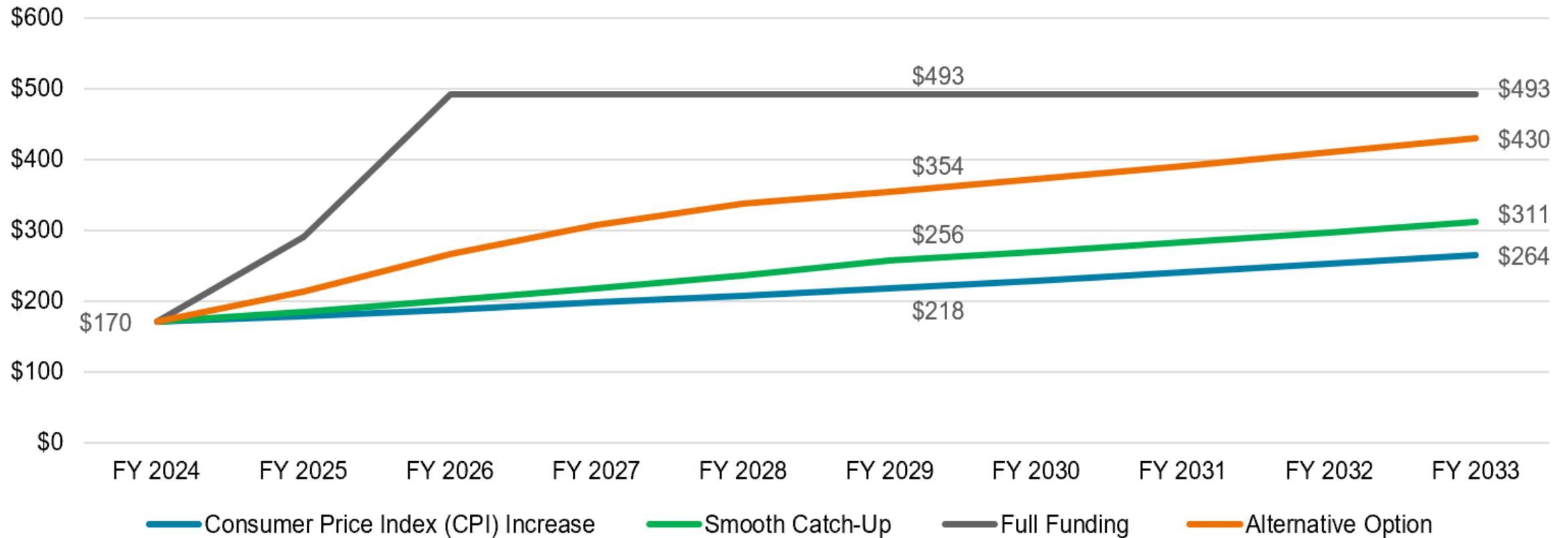
*Typical Bill calculations reflect across-the-board increases which may differ across customer classes after cost-of-service & rate design tasks.



Example Commercial Bill

Commercial, 2" Typical Bill (30 KGAL)

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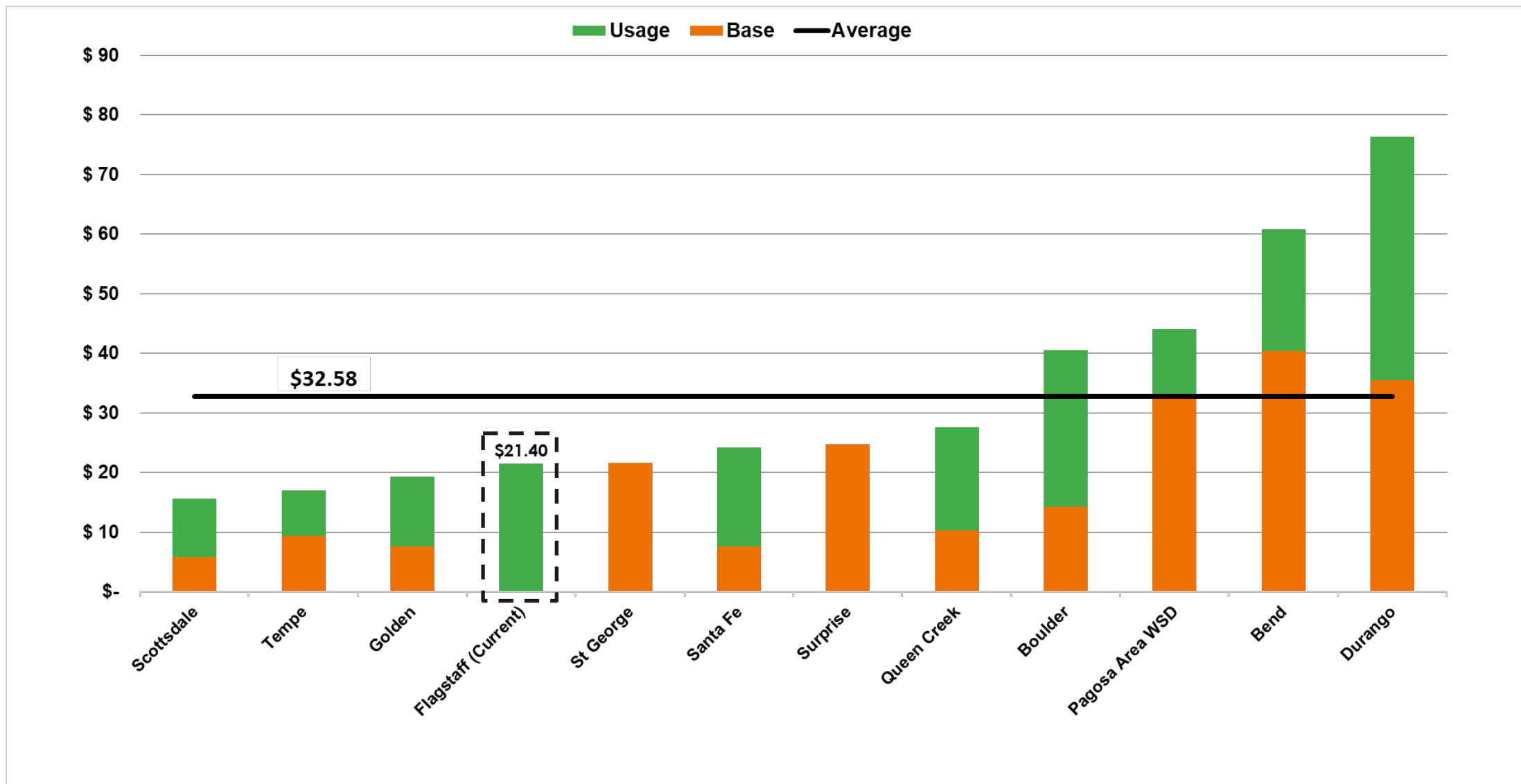


*Typical Bill calculations reflect across-the-board increases which may differ across customer classes after cost-of-service & rate design tasks.



Residential Bill Comparisons – Wastewater

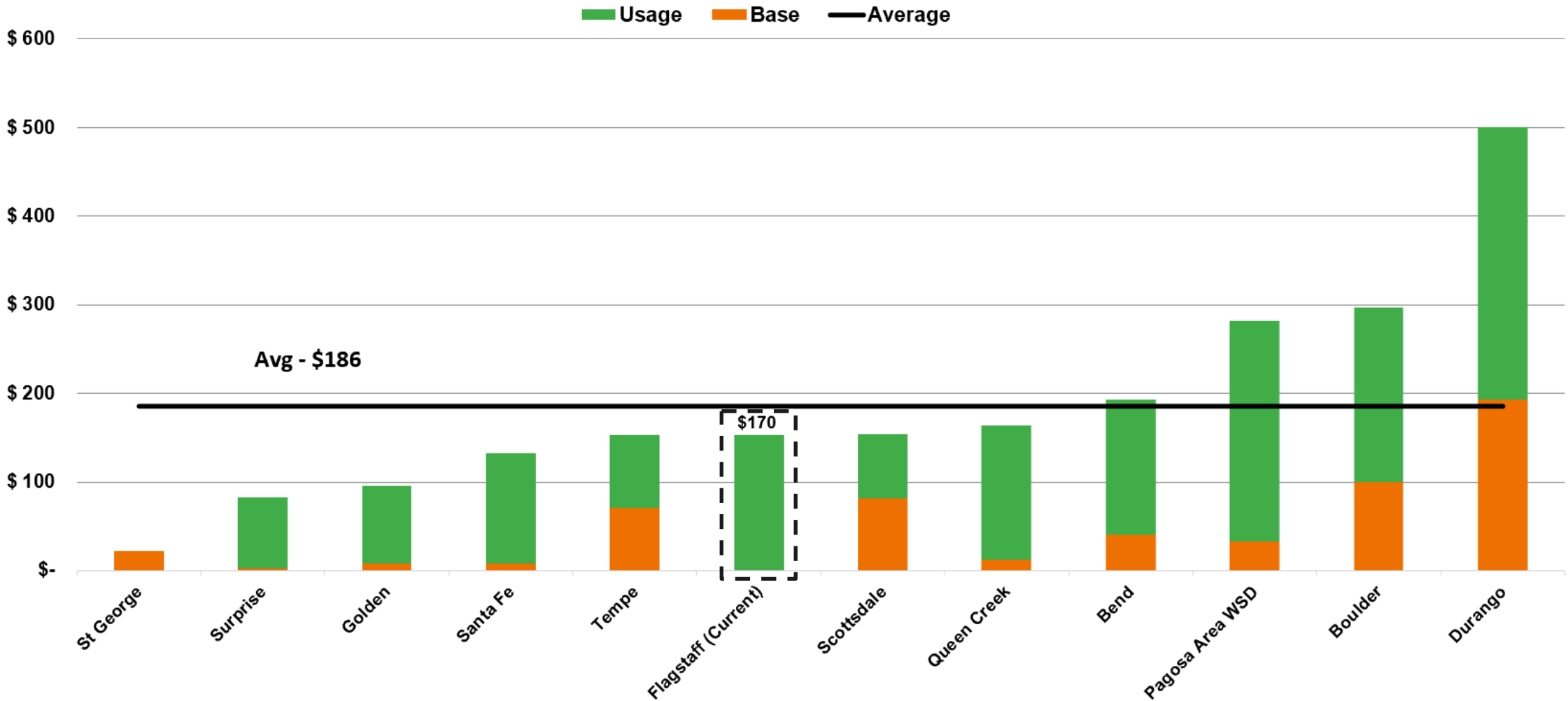
FY 2023 Monthly Residential Wastewater Base and Usage Rate Survey at 4,000 gallons





Commercial Bill Comparisons – Wastewater

FY 2023 Monthly Commercial Wastewater Base and Usage Rate Survey at 30,000 gallons





Discussion



Reclaimed Water Fund



Reclaimed Water Fund Scenario Results Summary

Scenarios	FY24-FY33 CIP Funding Level (\$M)	FY24	FY25	FY26	FY27	FY28	FY29	FY30-FY33 Annual
Consumer Price Index (CPI)	\$7	0.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Smooth Catch-Up	\$8	0.0%	8.5%	8.5%	8.5%	8.5%	8.5%	5.0%
Full Funding	\$69	0.0%	450.0%	105.0%	38.0%	0.0%	0.0%	0.0%
Alternative Option	\$11	0.0%	15.0%	15.0%	15.0%	15.0%	15.0%	5.0%

Alternative Option reflects current reclaimed water pricing policy keeping rates at specified %'s of potable water rates

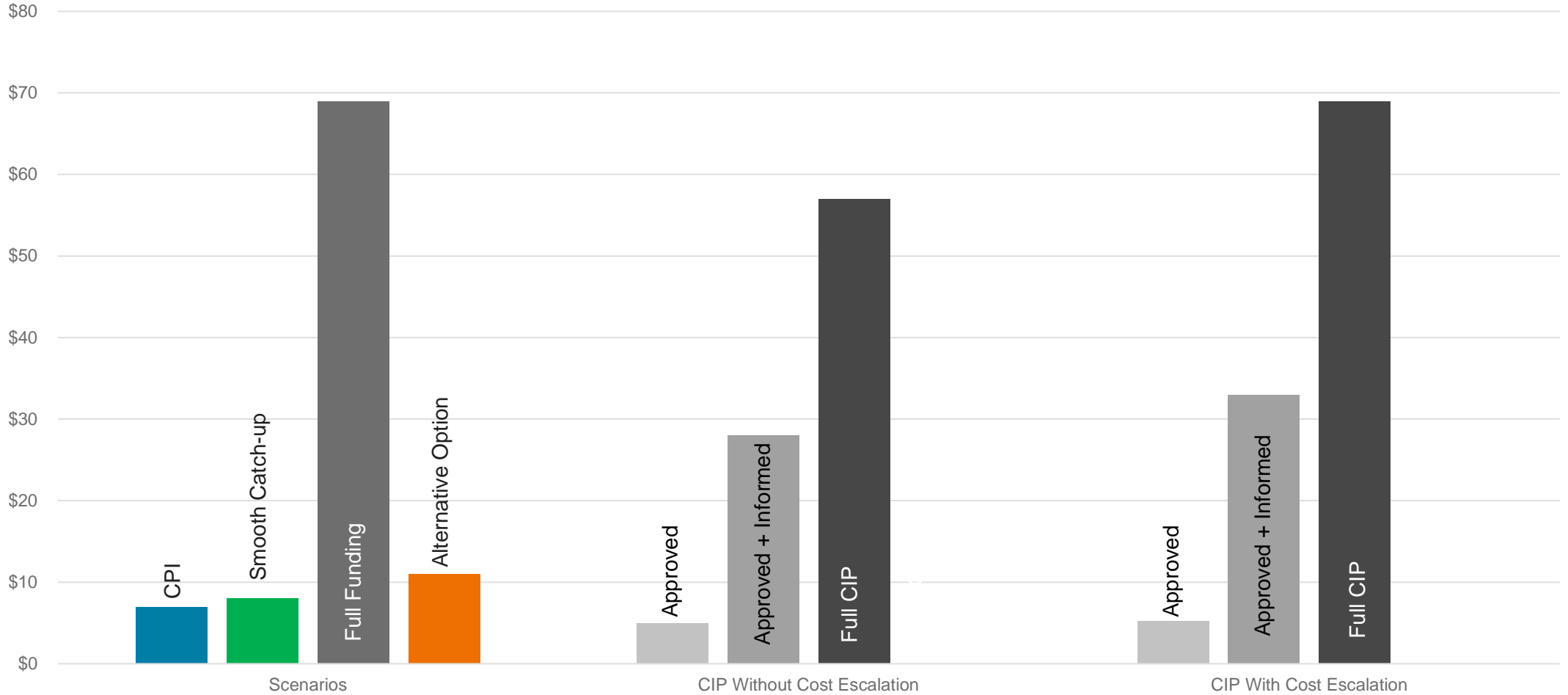


Reclaimed Water Fund Scenario Results Summary: 2" Example Commercial Bill Impact (73KGAL), FY24-33

Scenarios	FY24-FY33 CIP Funding Level (\$M)	FY24	FY25	FY26	FY27	FY28	FY29	FY30-FY33 Total
Consumer Price Index (CPI)	\$7	\$0.00	\$7.30	\$8.03	\$8.03	\$8.76	\$9.49	\$41.61
Smooth Catch-Up	\$8	\$0.00	\$13.14	\$13.87	\$15.33	\$16.79	\$18.25	\$49.64
Full Funding	\$69	\$0.00	\$683.28	\$876.73	\$650.43	\$0.00	\$0.00	\$0.00
Alternative Option	\$11	\$0.00	\$22.63	\$26.28	\$29.93	\$34.31	\$39.42	\$65.70



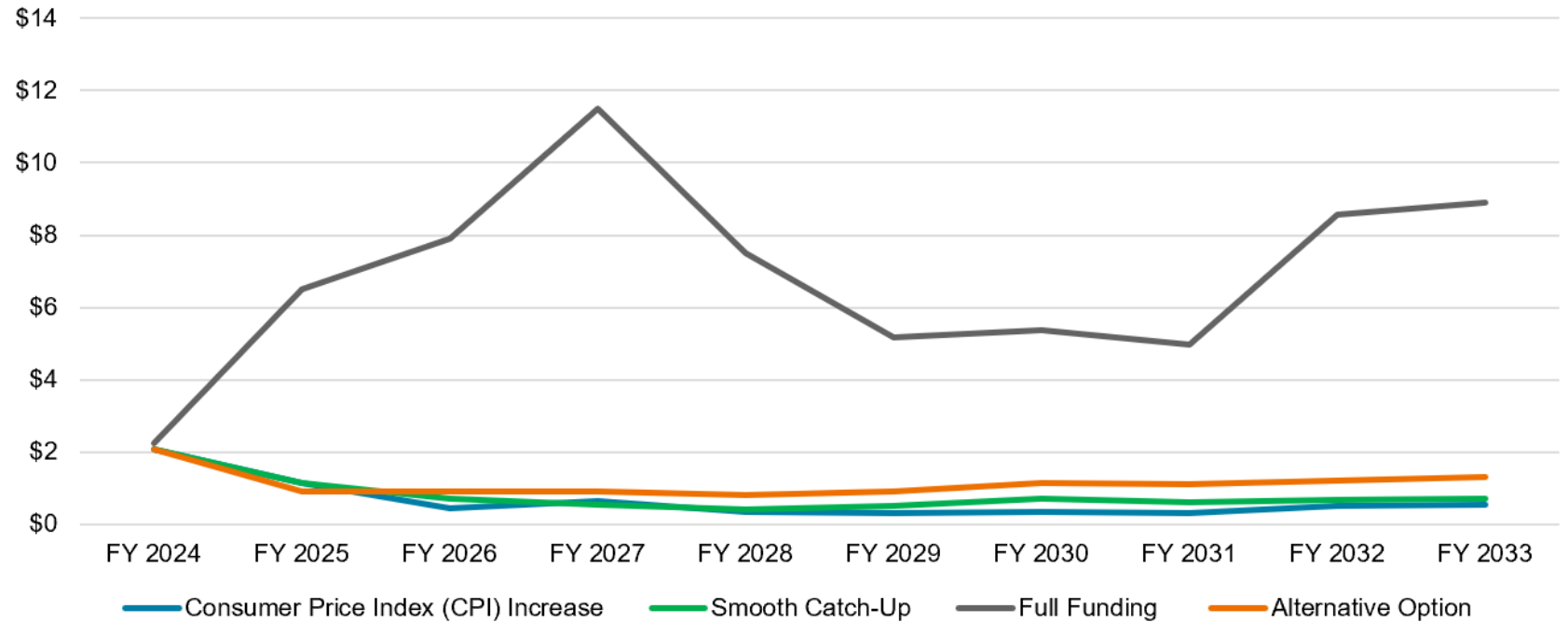
Comparison of Scenario Funding vs 10-year CIP





Reclaimed Water CIP Expenditures FY24-33

Scenarios	FY24-FY33 CIP Funding Level (\$M)
Consumer Price Index (CPI)	\$7
Smooth Catch-Up	\$8
Full Funding	\$69
Alternative Option	\$11



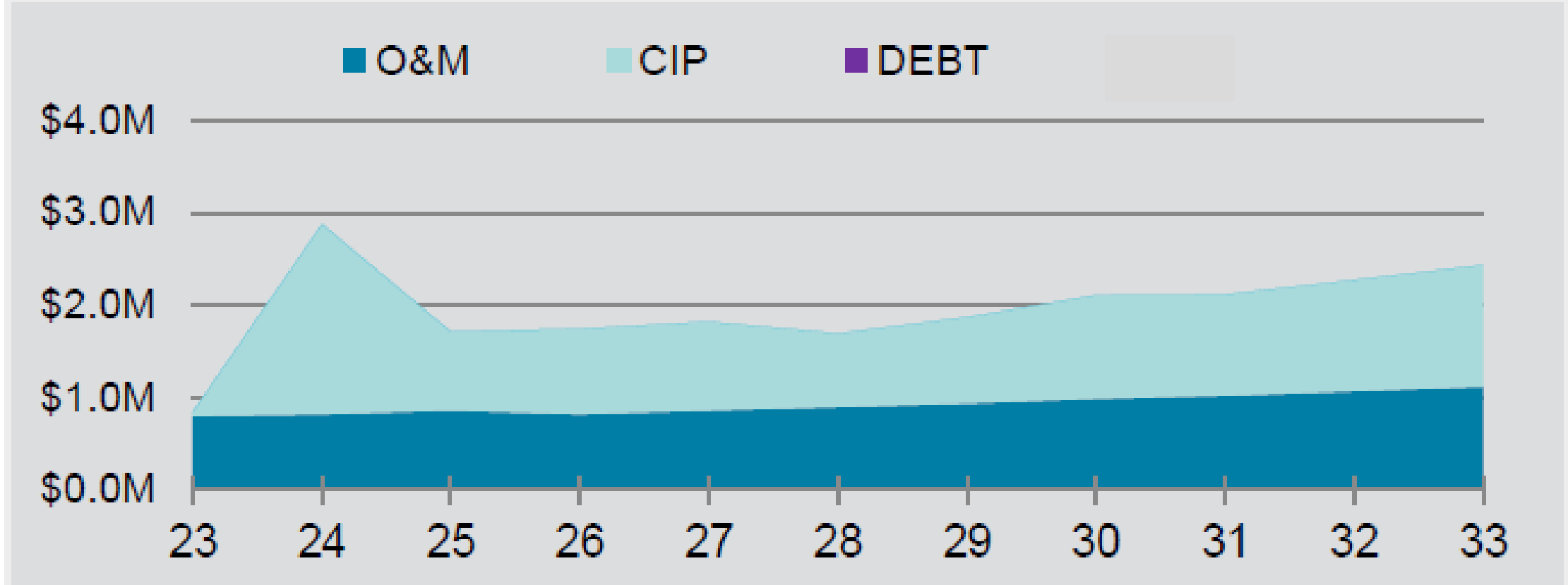


Wastewater Fund – Alternative Option

WATER, RECLAIMED WATER, & WASTEWATER STUDY

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Expenses by Type

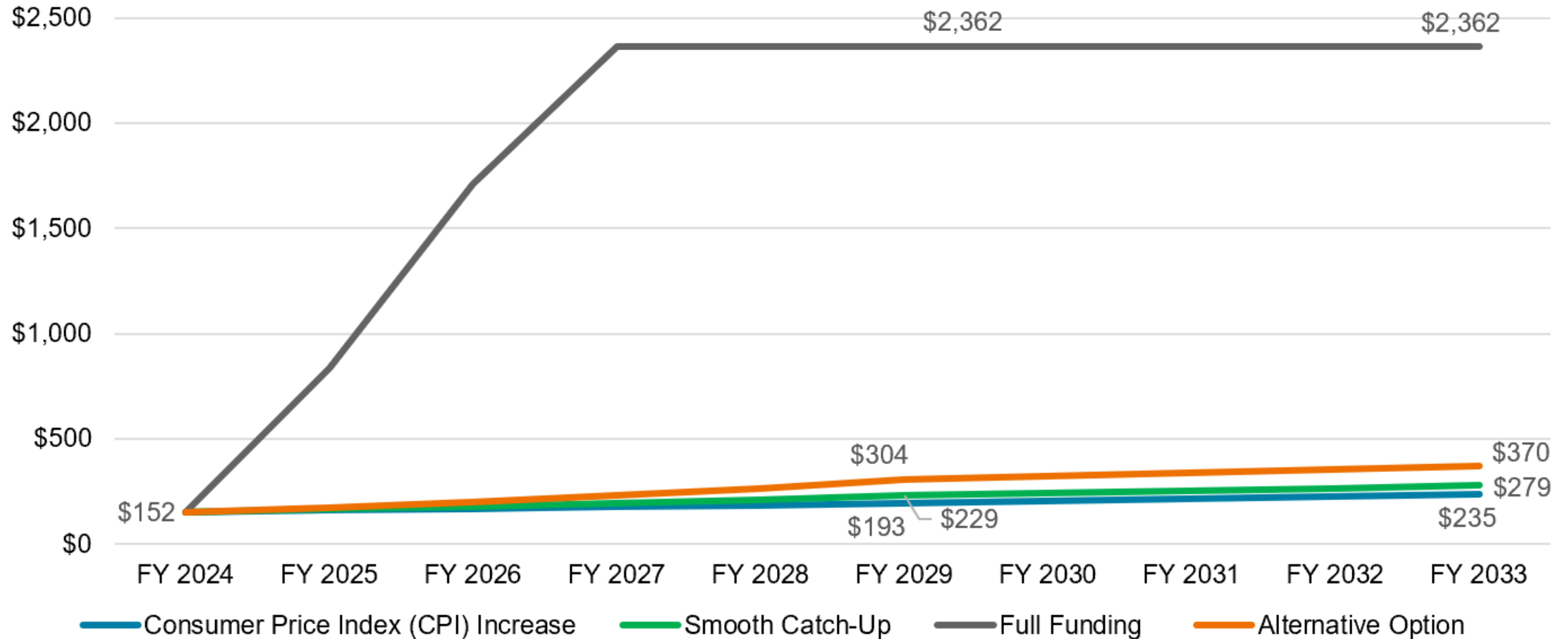




Example Commercial Bill Impacts - 2" Meter Using 73KGAL

WATER, RECLAIMED WATER, & WASTEWATER STUDY

DRAFT - FOR DISCUSSION PURPOSES

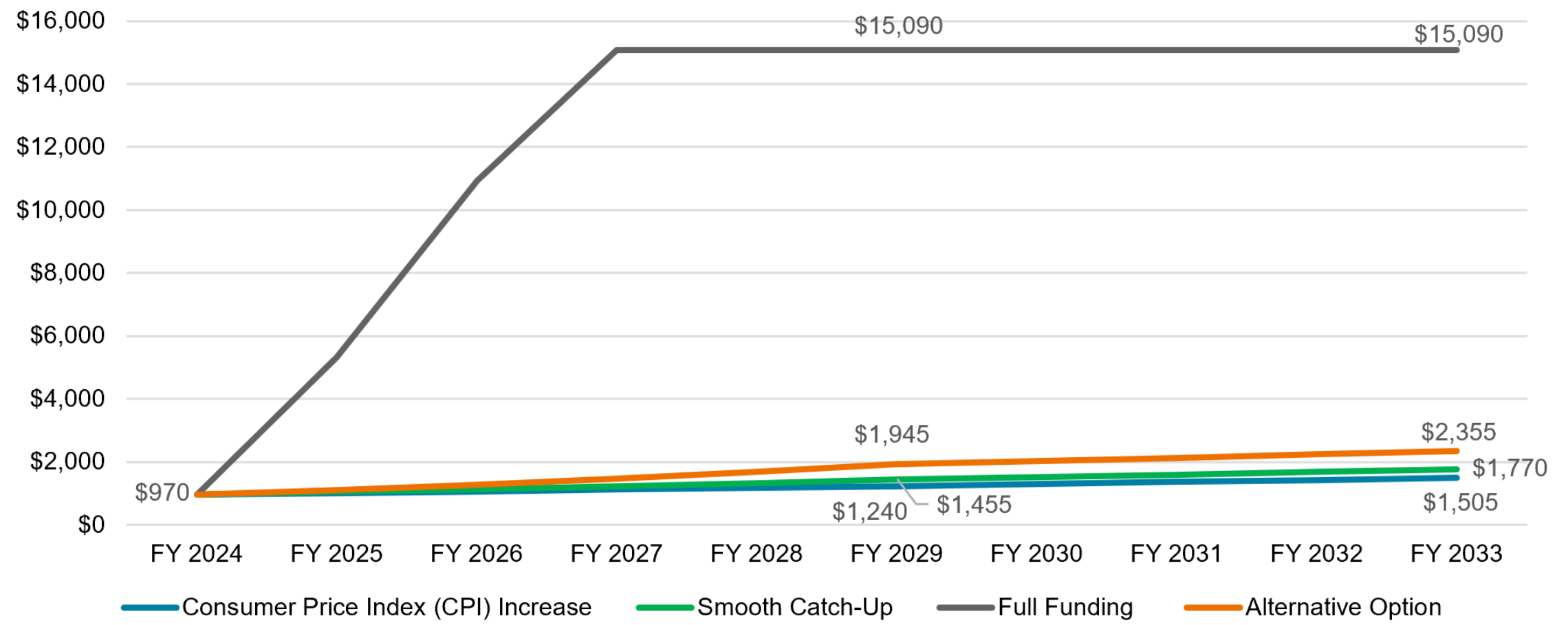


*Typical Bill calculations reflect across-the-board increases which may differ across customer classes after cost-of-service and rate design tasks.



DRAFT – FOR DISCUSSION PURPOSES

Larger User Bill Impacts - 4" Meter Using 500KGAL



*Typical Bill calculations reflect across-the-board increases which may differ across customer classes after cost-of-service and rate design tasks.



Discussion



Looking Forward - Key Milestones

	2023									2024								
	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
Rate Study Begins	█																	
Monthly Updates to Water Commission	█	█	█	█	█	█	█	█	█	█	█							
Review of current rates and budget forecasts	█	█	█	█														
Develop elements of communication program				█														
Small group stakeholder roundtables					**													
Future Stakeholder engagement events/opportunities							**		**	**	**		**					
Kick Off meeting with City Council				█														
Monthly Updates to City Council						█	█	█	█									
Work/Study Session with Council and Commission (public invited)						**												
Analysis of all current fees				█	█													
Develop Rate Design to meet community goals					█	█	█											
Develop Draft Rate Study report							█	█										
Present Draft Rate Study to Water Comm and Council									█									
Prepare 2nd Draft of Rate Study to Water Comm and Council										█								
Prepare Final Draft of Rate Study to Water Comm and Council											█							
Final Rate Study Presented to City Council												█						
Presentation of Ordinance to amend rates to Council													█					
Public Hearing on Proposed Rates (1st reading)														█				
Rate Ordinance adoption by City Council															█			
Revised rates become effective																	█	

** Planned Community Outreach event



Thank You!

Feedback/Questions?

Water Fund							
Type of Project	Project	Project Need First Identified	Comment	Potential Funding Options	Approved Budget	Informed CIP	Unfunded
Ongoing Planning and Infrastructure Maintenance				Rates. Maintenance and planning generally not eligible for grants or appropriations			
Infrastructure Improvement	Aging Water Infrastructure Replacements*	2014 WMP			X	X	
Infrastructure Improvement	Water Vault/PRV Replacement Program	2014 WMP			X		
Infrastructure Improvement/Energy Efficiency	Radio Read Meter Replacements	2014 WMP		pending grant in FY24	X	X	
Infrastructure Improvement/Energy Efficiency	SCADA Well Upgrades	2019			X		
Planning	Water Resources Master Plan	Review every 5 years			X		
Planning	Water System Master Plan	Review every 5 years			X		
Planning	Water Rate Study	Review every 5 years			X		
Infrastructure (Maintenance) Projects							
Infrastructure improvement	Lake Mary Sedimentation Basins (Flocculations)	2014 WMP	Insufficient funding, top priority	EI 595 Funding allocation, but not expecting funding to come through	X		
Infrastructure Relocation	Rio Flood Control Project - Waterline realignment	2014 WMP	Community Driven		X		
Infrastructure Improvement	Coconino Estates - Bundle #4	2014 WMP	Dig Once Driven, in progress		X		
Infrastructure repair	Lake Mary Dam Repairs	2022			X		
Infrastructure Improvement	First Ave TREX Waterline Replacement	2021	Community Driven		X		
Infrastructure Improvement	Fort Valley Shopping Center WL	2022			X		
Infrastructure Improvement	Beulah/University Waterline	2014 WMP	Dig Once Driven, in progress		X		
Infrastructure Improvement	Turquoise W/L Replacement	2014 WMP	Dig Once Driven		X		
Infrastructure Improvement	Inner Basin Waterline - Pipeline Fire FEMA	2022	In progress	DFFM funding	X		
Infrastructure Improvement	Inner Basin Waterline- Schultz to Reservoir	2014 WMP	Needed to complete pipeline	**possible grant for partial funding	X	X	X
Unfunded - maintenance	Lake Mary Water Treatment Plant Chlorine Dioxide Generator Replacement	2022					X
Unfunded - maintenance	N Res Treatment Plant - filter rehab	2014 WMP	prioritized maintenance				X
Unfunded - maintenance	Main Tank Rehab	2014 WMP	prioritized maintenance				X
Unfunded - maintenance	Christmas Tree Tank Rehab	2014 WMP	prioritized maintenance				X
Unfunded - maintenance	Paradise Tank Rehab	2014 WMP	prioritized maintenance				X
Unfunded - maintenance	Kinlani Tank Rehab	2014 WMP	prioritized maintenance				X
Unfunded - maintenance	Inner Basin Diesel Engine Replacements	2014 WMP	prioritized maintenance				X
Unfunded - maintenance	Flow Meter Replacement	2014 WMP	prioritized maintenance				X
Unfunded - maintenance	Tuthill Booster Station Rehab	2014 WMP	prioritized maintenance				X

Type of Project	Project	Project Need First Identified	Comment	Potential Funding Options	Approved Budget	Informed CIP	Unfunded
Infrastructure Repairs	LM Raw Water Pipeline Rehab	2014	prioritized maintenance	**possible EI595 or BOR grant for partial funding, \$1.5M	X		
Resiliency	Woody Mountain Wellfield Powerline Burial	2019 resiliency		**possible grant funding, on EI595 list		X	X
Infrastructure improvement	Bonito Load Out Station	2021					X
Infrastructure Improvement	Inner Basin Spring Box and Collection Rehab	2014 WMP		**possible BOR grant for partial funding	X	X	
Infrastructure Improvement	ADOT Cast Iron	2022				X	
Resiliency/ Near Term Growth (Capacity)							
Infrastructure Improvement	Soliere Waterline 12" Upsizing	Development Driven			X		
Infrastructure Improvement	Lake Mary Land Acquisition	2014 WMP			X		
Facility Improvement	McAllister-Well Design/Construction	2005 Well Study			X		
Facility Improvement	Switzer Canyon Transmission Line Phase 4	2014 WMP			X		
Facility Improvement	Switzer Canyon Transmission Line Phase 5	2014 WMP			X		
Resiliency and growth-related improvement	Fort Tuthill Well Pump House	2016 CIP			X	X	
Growth-related system improvement	JW Powell Waterline Oversizing	Development Driven			X		
Growth-related system improvement	Pine Del Waterline Upsizing	Development Driven			X		
Growth-related system improvement	Zone B Storage	2014 WMP			X		
Growth-related system improvement	Railroad Springs #3 Storage Tank	2014 WMP			X		
Infrastructure Improvement	New Wells and Pumphouses	2014 WMP			X	X	
Growth-related system improvement	Fort Tuthill Waterline Loop - Phase 2	Development Driven			X		
Resiliency/ Long Term Growth (Future Capacity)							
Infrastructure Improvements (Capacity)	Red Gap Hydrogeologic Study	2005 Bond Election			X		
Infrastructure Improvements (Capacity)	Red Gap Ranch ROW Survey and Mapping	2005 Bond Election			X	X	
Infrastructure Improvements (Capacity)	Red Gap Ranch Water Quality Study	2005 Bond Election			X		
Infrastructure Improvements (Capacity)	Red Gap Ranch NEPA Environ Impact Study	2005 Bond Election			X		
Infrastructure Improvements (Capacity)	Red Gap Ranch NEPA Environ Impact Study	2005 Bond Election		possible EI595 grant funding	X		
Infrastructure Improvements (Capacity)	Red Gap Ranch ROW Acquisition Segments 1-3	2005 Bond Election			X	X	
Infrastructure Improvements (Capacity)	Red Gap Ranch Well Completion (10 Wells)	2005 Bond Election			X		
Infrastructure Improvements (Capacity)	Red Gap Ranch Geotechnical Investigation	2005 Bond Election			X		
Infrastructure Improvements (Capacity)	Red Gap Ranch Geotechnical Investigation	2005 Bond Election		possible EI595 grant funding	X		
Infrastructure Improvements (Capacity)	Red Gap Ranch Well Field Piping Design	2005 Bond Election			X		
Resiliency/ Long Term Growth (Future Capacity)							
					NOT A PART OF THIS RATE DISCUSSION		
Infrastructure Improvements (Capacity)	Red Gap Pipeline Design	2005 Bond Election					X
Infrastructure Improvements (Capacity)	Red Gap Pipeline Construction	2005 Bond Election					X
<p>* A note about Aging Infrastructure: The current policy is to replace two miles of water and one mile of sewer line each year. Based on increased costs, this replacement rate does not occur. Most Water and Sewerline replacement funding is spent on Streets-related priorities, following the "dig once" policy. Water or Sewer line replacement priorities are not being addressed, causing a high risk of failure; i.e. pipeline breaks.</p>							

Type of Project	Project	Project Need First Identified	Comment	Potential Funding Options	Approved Budget	Informed CIP	Unfunded
<p>** A note about grants. While grants are beneficial, they require careful timing and additional staff resources. Match dollars are required, as well as prep work that is not reimbursable. Federal procurement requirements can increase the construction project's costs. This must be considered in the cost-benefit analysis.</p>							

Wastewater Fund							
Type of Project	Project	Project Need First Identified	Comments	Potential Funding Options	Approved Budget	Informed CIP	Unfunded
Ongoing Programs and Maintenance				Rates. Maintenance and planning are generally not eligible for grants or appropriations			
Maintenance and replacement	Aging Sewer Infrastructure Replacements	2015 Sewer Master Plan, ongoing maintenance			X	X	
Planning	Facility Master Plan Update	2022, then every 5 years			X		
Planning	Sewer Collection AIR Assessments	2016 Sewer Master Plan			X		
Planning	Collections Master Plan	2015 Sewer Master Plan			X		
Infrastructure improvement	Energy Efficiency Program	2015 Sewer Master Plan			X		
Planning	Sewer Rate Study	2015 Sewer Master Plan			X		
Infrastructure (Maintenance) Projects				Maintenance projects not generally eligible for grants			
Infrastructure relocation	Rio de Flag Sewer Relocations	2015 Sewer Master Plan	Community driven		X		
Infrastructure maintenance	First Ave/Route 66 Sewer Replace	2020	Dig once driven		X		
Infrastructure improvements	Country Club Interceptor to Wildcat	2015 Sewer Master Plan	High Priority- single point of failure		X	X	X
Infrastructure improvements	Coconino Estates - Bundle #4	community driven	In progress		X		
Facility maintenance	Wildcat Roof Replacement	2021	In progress		X		
Infrastructure relocation	BNSF Sewer Relocations	2022	Community driven		X		
Infrastructure improvements	East Industrial Sewer Improvements	2015 Sewer Master Plan			X		
Infrastructure improvements	Ponderosa Parkway/McMillan Mesa	2015 Sewer Master Plan			X		
Facility maintenance	Rio Two Bar Screens	2021	In progress		X		
Infrastructure improvements	Anoxic Mixer	2022					X
Facility maintenance	Influent Grit Removal	2022					X
Infrastructure improvements	Improved Baffling and Weirs for Secondary Clarifiers	2022					X
Infrastructure improvements	Add a post Anoxic Zone	2015 Sewer Master Plan					X
Infrastructure improvements	Add Initial Anaerobic Zone	2015 Sewer Master Plan					X
Infrastructure improvements	Replace all Three Anoxic Mixers on IFAS	2015 Sewer Master Plan					X
Facility maintenance	Septage/Grease Station	2015 Sewer Master Plan					X
Facility maintenance	Rio Roof Replacement	2022			X		
Facility improvements	Rio Main Motor Control Centers	2019			X		
Infrastructure maintenance	Flagstaff Interceptor (Butler to Continental Country Club)	2015 Sewer Master Plan					X
Resiliency/Near Term Growth (Capacity)							
capacity	Rio Solids Treatment	2019 Biosolids Master Plan			X		
growth/resiliency	Beulah/University Sewer Extension	CD driven			X		
infrastructure improvements	Sunnyside Trunk Upsizing	2015 Sewer Master Plan			X		
infrastructure improvements	East Railhead Upsizing	2015 Sewer Master Plan			X		
infrastructure improvements	University Heights Oversizing	2016 Sewer Master Plan			X		
capacity	Wildcat UV Disinfection	2022			X		
infrastructure improvements	Wildcat New Electric/Fiber Upgrade	2020			X		
capacity	Wildcat Solar Drying	2021			X		
infrastructure improvements	Headworks Rehab	2020			X		
capacity	Wildcat Dewatering Facility	2015 Sewer Master Plan			X		
Resiliency/ Long Term Growth (Future Capacity)							NOT A PART OF THIS RATE DISCUSSION

Type of Project	Project	Project Need First Identified	Comments	Potential Funding Options	Approved Budget	Informed CIP	Unfunded
	Wildcat Hill Expansion /Design	2019 Biosolids Master Plan		possible BOR Title XVI funding			X
	Wildcat Hill Expansion Construction	2020 Biosolids Master Plan		possible BOR Title XVI funding			X

Reclaimed Water Fund

Type of Project	Project	Project Need First Identified	Comments	Potential Funding Options	Approved Budget	Informed CIP	Unfunded
Ongoing Programs and Maintenance				Rates. Maintenance and planning are generally not eligible for grants or appropriations			
Planning	Rate Study - Reclaimed Portion	ongoing planning			X		
Ongoing maintenance	Reclaim Water Meters/Vaults	ongoing maintenance			X		X
Ongoing maintenance	Rio Reclaimed Pump Valve Actuators	ongoing maintenance			X		
Ongoing maintenance	Reclaim System PRV/ARV Assessment	ongoing maintenance				X	
Infrastructure (Maintenance) Projects				Maintenance projects not generally eligible for grants			
Infrastructure relocation	BNSF Reclaimed Relocations	community driven			X		
Infrastructure improvements	Rio Reclaim Water PRV Relocate	2019	Top Priority		X		X
Infrastructure maintenance	Buffalo Park Tank #1 Painting	2016 CIP				X	
Infrastructure improvements	Buffalo Park Chlorine Bldg Upgrade	2020				X	X
Infrastructure improvements	Bushmaster Booster Station, Pump and Automatic Valve	2016 CIP					X
Resiliency/Near Term Growth (Capacity)							
Resiliency - growth	8" Bottleneck - Reclaimed Line	2018	Insufficient funding	Potential for grant funding	X		X
Infrastructure improvements	Bushmaster Park Communications and Flow Meter	2016 CIP				X	
Infrastructure improvements	WCH Reclaim Booster Building Equipment Upgrade	2022				X	X
Infrastructure improvements	Reclaim Model Projects	2022				X	
Infrastructure improvements	Rio Storage Tank	2015				X	
Infrastructure improvements	WCH Storage Tank	2015				X	
Infrastructure improvements	Rio Reclaim Booster Pump Station - Upgrades	2022					X
Resiliency	Master Radio Tower- Rio de Flag	2022					X
Infrastructure improvements	Cemex and County Yard Flow Monitoring Stations	2022					X
Infrastructure improvements	Rio Reclaim Distribution System upgrades	2022					X
Resiliency - capacity	Reclaim Recharge Outfall Project	2022		possible grant funding		X	X
Resiliency/ Long Term Growth (Future Capacity)							
Growth- resiliency	Water System Expansion - Westside	Development driven					X
Resiliency	Water Line Loop - Foxglenn Park to Continental/WCH	2013				X	X
Growth- resiliency	AWT Sampling and Testing	2022		possible grant funding		X	
Growth- resiliency	AWT Pilot Project	2022		possible grant funding		X	

Water Capital Improvement Program (CIP)

	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	Total Cost
Approved CIP											
1 Beulah/University Waterline Relocation	\$ 404,103	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 404,103
2 Rio Flood Control Project - Waterline	1,725,000	-	550,000	-	-	-	-	-	-	-	\$ 2,275,000
3 Aging Water Infrastructure Replacements	266,000	200,000	200,000	200,000	900,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	\$ 6,766,000
4 Water Vault/PRV Replacement Program	475,512	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	\$ 2,275,512
5 Radio Read Meter Replacements ⁺	800,000	1,300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	\$ 4,500,000
6 Reserve	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	\$ 3,000,000
7# Water System Master Plan	134,561	-	-	-	-	150,000	-	-	-	-	\$ 284,561
8# Water Rate Study	187,000	-	-	-	-	75,000	-	-	-	-	\$ 262,000
9 SCADA Well Upgrades	60,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	\$ 330,000
10# New Well and Pumphouse*	148,619	-	2,400,000	-	2,800,000	-	3,200,000	-	3,200,000	-	\$ 11,748,619
11 Coconino Estates - Bundle #4	938,807	-	-	-	-	-	-	-	-	-	\$ 938,807
12 Lake Mary Sedimentation Basins (Flocculations)**	4,392,905	3,430,000	-	-	-	-	-	-	-	-	\$ 7,822,905
13# Soliere Waterline 12" Upsizing	3,377,150	-	-	-	-	-	-	-	-	-	\$ 3,377,150
14# Lake Mary Land Acquisition*	-	3,000,000	-	-	-	-	-	-	-	-	\$ 3,000,000
15# McAllister-Well Design/Construction	148,912	-	-	-	-	-	-	-	-	-	\$ 148,912
16# Switzer Canyon Transmission Line Phase 4*	5,593,506	1,210,000	10,000	10,000	-	-	-	-	-	-	\$ 6,823,506
17 Switzer Canyon Transmission Line Phase 5*	-	500,000	2,500,000	4,000,000	-	-	-	-	-	-	\$ 7,000,000
18# Fort Tuthill Waterline Loop - Phase 2	-	-	-	-	-	2,000,000	-	-	-	-	\$ 2,000,000
19 Water Resources Master Plan	145,000	-	-	-	-	-	-	-	-	-	\$ 145,000
20 First Ave TREX Waterline Replacement	249,750	-	-	-	-	-	-	-	-	-	\$ 249,750
21# Fort Tuthill Well*	772,083	3,320,000	-	-	-	-	-	-	-	-	\$ 4,092,083
22 Inner Basin Waterline ⁺	8,178,788	8,178,788	-	-	-	-	-	-	-	-	\$ 16,357,576
23 Inner Basin Line - Schultz to Reservoir Plant	-	-	-	200,000	-	-	-	-	-	-	\$ 200,000
24 Inner Basin Spring Box and Collection Rehab	-	-	-	-	200,000	-	-	-	-	-	\$ 200,000
25 LM Raw Water Pipeline Rehab**	50,000	500,000	450,000	5,000,000	-	2,000,000	-	5,000,000	-	3,000,000	\$ 16,000,000
26 Zone B Storage	50,000	-	-	500,000	500,000	-	-	-	-	-	\$ 1,050,000
27 Lake Mary Dam Repairs	150,000	-	-	-	-	-	-	-	-	-	\$ 150,000
28 Red Gap Ranch Hydrogeologic Study	-	300,000	-	-	-	-	-	-	-	-	\$ 300,000
29# Red Gap Ranch ROW Survey and Mapping	-	150,000	-	-	-	-	-	-	-	-	\$ 150,000
30# Red Gap Ranch Water Quality Study	-	-	400,000	-	-	-	-	-	-	-	\$ 400,000
31 Railroad Springs #3 Storage Tank	-	-	-	-	-	300,000	1,200,000	-	-	-	\$ 1,500,000
32 Red Gap Ranch NEPA Environ Impact Study	-	-	-	-	-	-	250,000	-	-	-	\$ 250,000
33 Red Gap Ranch NEPA Environ Impact Study ⁺	-	-	-	-	-	500,000	250,000	-	-	-	\$ 750,000
34# Red Gap Ranch Well Completion (10 Wells)	-	-	-	-	-	-	-	-	-	450,000	\$ 450,000
35# JW Powell Waterline Oversizing	-	1,150,000	1,150,000	-	-	-	-	-	-	-	\$ 2,300,000
36# Pine Del Waterline Upsizing	-	-	-	-	-	500,000	1,000,000	1,000,000	-	-	\$ 2,500,000
37# Red Gap Ranch Geotechnical Investigation	-	-	-	-	-	125,000	-	-	-	-	\$ 125,000
38 Red Gap Ranch Geotechnical Investigation ⁺	-	-	-	-	-	375,000	-	-	-	-	\$ 375,000
39# Red Gap Ranch Well Field Piping Design	-	-	-	-	-	-	-	-	750,000	-	\$ 750,000
40 Woody Mountain Wellfield Powerline Burial ⁺	-	-	-	-	1,500,000	500,000	-	-	-	-	\$ 2,000,000
41 Fort Valley Shopping Center	-	-	100,000	500,000	-	-	-	-	-	-	\$ 600,000
42 Turquoise WL Replacement	-	-	-	-	-	-	100,000	1,000,000	-	-	\$ 1,100,000
43 Total CIP Budget (in current dollars)	\$ 28,647,696	\$ 23,868,788	\$ 8,690,000	\$ 11,340,000	\$ 6,830,000	\$ 8,355,000	\$ 7,830,000	\$ 8,830,000	\$ 5,780,000	\$ 5,280,000	\$ 115,451,484
44 Cumulative Projected Cost Escalation ¹	0.0%	4.0%	8.2%	12.5%	17.0%	21.7%	26.5%	31.6%	36.9%	42.3%	
45 Resulting CIP Funding Level	\$ 28,647,696	\$ 24,823,540	\$ 9,399,104	\$ 12,755,958	\$ 7,990,134	\$ 10,165,135	\$ 9,907,448	\$ 11,619,678	\$ 7,910,329	\$ 7,515,086	\$ 130,734,107
<i>#Fully or partially funded by growth</i> <i>*Projects designated for partial debt funding</i> <i>* Full or partially grant funded project. See table three for list of grant funded projects and grant funding amounts</i>											

	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	Total Cost
Informed CIP Additional Costs											
46 Aging Water Infrastructure Replacements	-	-	1,800,000	2,300,000	1,600,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	\$ 13,200,000
47 New Well and Pumphouse	-	-	-	3,000,000	-	3,500,000	-	4,000,000	-	4,000,000	\$ 14,500,000
48 Fort Tuthill Well	-	-	3,500,000	-	-	-	-	-	-	-	\$ 3,500,000
49 Inner Basin Line - Schultz to Reservoir Plant	-	-	-	-	-	3,000,000	-	3,000,000	-	2,000,000	\$ 8,000,000
50 Inner Basin Spring Box and Collection Rehab	-	-	-	-	-	-	2,000,000	2,000,000	-	-	\$ 4,000,000
51 Red Gap Ranch ROW Acquisition Segments 1-3	-	-	-	-	-	1,000,000	1,000,000	-	-	-	\$ 2,000,000
52 Woody Mountain Wellfield Powerline Burial	-	-	-	-	-	1,500,000	-	-	-	-	\$ 1,500,000
53 ADOT Cast Iron	-	-	-	-	-	-	-	1,500,000	2,000,000	2,000,000	\$ 5,500,000
54 Annual Unfunded Projects**	-	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	\$ 9,000,000
55 Subtotal - Additional Informed CIP Project Costs	\$ -	\$ 1,000,000	\$ 6,300,000	\$ 6,300,000	\$ 2,600,000	\$ 11,500,000	\$ 5,500,000	\$ 13,000,000	\$ 4,500,000	\$ 10,500,000	\$ 61,200,000
56 Total CIP Budget (in current dollars)	\$ 28,647,696	\$ 24,868,788	\$ 14,990,000	\$ 17,640,000	\$ 9,430,000	\$ 19,855,000	\$ 13,330,000	\$ 21,830,000	\$ 10,280,000	\$ 15,780,000	\$ 176,651,484
57 Cumulative Projected Cost Escalation ¹	0.0%	4.0%	8.2%	12.5%	17.0%	21.7%	26.5%	31.6%	36.9%	42.3%	
58 Resulting CIP Funding Level	\$ 28,647,696	\$ 25,863,540	\$ 16,213,184	\$ 19,842,601	\$ 11,031,766	\$ 24,156,643	\$ 16,866,703	\$ 28,726,791	\$ 14,068,890	\$ 22,459,860	\$ 207,877,674
<i>**See Table 2 for list of unfunded projects</i>											

Water Capital Improvement Program Details

Table 1 - Major Projects

	Total Cost
1 Red Gap Ranch Pipeline 100% Design	\$ 12,000,000
2 Red Gap Ranch Pipeline Construction	\$ 260,000,000
Total Major CIP Projects	\$ 272,000,000

****Table 2 - Unfunded Projects**

	Total Cost
1 North Reservoir Treatment Plant	\$ 1,200,000
2 Main Tank Rehabilitation	\$ 1,200,000
3 Christmas Tree Tank Rehabilitation	\$ 500,000
4 Paradise Tank Rehabilitation	\$ 500,000
5 Bonito Load Out Station	\$ 750,000
6 Kinlani Tank Rehabilitation	\$ 100,000
7 Inner Basin Diesel Engine Replacements (IB#9, IB#11, IB#14)	\$ 150,000
8 Flow Meter Replacements	\$ 500,000
9 Inner Basin Pipeline Assessment/Design	\$ 500,000
10 Inner Basin Pipeline Rehabilitation	\$ 2,500,000
11 Lake Mary Water Treatment Plant Chlorine Dioxide Generator Replacement	\$ 200,000
12 Tuthill Booster Station Rehabilitation	\$ 300,000
Total Unfunded CIP Projects	\$ 8,400,000

+Table 3 - Grant Funded Projects

	Total Cost
1 Radio Read Meter Replacements	\$ 1,500,000
2 Lake Mary Sedimentation Basins (Flocculations)	\$ 4,125,000
3 Inner Basin Waterline	\$ 16,107,576
4 LM Raw Water Pipeline Rehab	\$ 1,500,000
5 Red Gap Ranch NEPA Environ Impact Study	\$ 750,000
6 Red Gap Ranch Geotechnical Investigation	\$ 375,000
7 Woody Mountain Wellfield Powerline Burial	\$ 1,500,000
Total Grant Funding	\$ 25,857,576

Wastewater Capital Improvement Program (CIP)

	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	Total Cost
Approved CIP											
1 Beaulah/University Sewer Ext	\$ 300,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 300,000
2# Master Plan - Collections	-	-	-	400,000	-	-	-	-	-	-	\$ 400,000
3 Energy Efficiency Program	206,637	-	-	-	-	-	-	-	-	-	\$ 206,637
4 Rio Two Bar Screens	515,917	-	-	-	-	-	-	-	-	-	\$ 515,917
5 Aging Infrastructure Replacements	-	-	1,000,000	-	1,000,000	1,350,000	1,500,000	2,000,000	1,875,000	1,790,000	\$ 10,515,000
6 Reserve for Improvements	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	\$ 3,000,000
7 Rio de Flag Sewer Relocations	3,300,000	-	945,000	-	-	-	-	-	-	-	\$ 4,245,000
8 Coconino Estates - Bundle #4	875,276	-	-	-	-	-	-	-	-	-	\$ 875,276
9# Wildcat Dewatering Facility	-	1,400,000	1,700,000	3,000,000	-	-	-	-	-	-	\$ 6,100,000
10# Sewer Rate Study	25,000	-	-	50,000	-	-	-	50,000	-	-	\$ 125,000
11 First Ave Rte 66 Sewer Replacement	500,990	-	-	-	-	-	-	-	-	-	\$ 500,990
12 Country Club Interceptor to WCH	300,000	-	-	-	-	-	-	-	-	-	\$ 300,000
13 Rio Solids Treatment*	22,618,500	2,000,000	-	-	-	-	-	-	-	-	\$ 24,618,500
14 Sewer Collection AIR Assessments	50,000	-	-	-	-	-	-	-	-	-	\$ 50,000
15 Wildcat New Elect./Fiber Upgrade*	-	2,000,000	1,246,000	-	-	-	-	-	-	-	\$ 3,246,000
16 Wildcat Roof Replacement	1,000,000	2,000,000	-	-	-	-	-	-	-	-	\$ 3,000,000
17 Wildcat UV Disinfection	500,000	2,500,000	2,500,000	-	-	-	-	-	-	-	\$ 5,500,000
18 Rio Main Motor Control Centers	-	-	300,000	1,500,000	1,800,000	-	-	-	-	-	\$ 3,600,000
19 BNSF Sewer Relocations	474,037	-	-	-	-	-	-	-	-	-	\$ 474,037
20 Facility Master Plan Update	750,000	-	-	-	-	400,000	-	-	-	-	\$ 1,150,000
21 Headworks Rehab	-	-	1,500,000	1,500,000	-	-	-	-	-	-	\$ 3,000,000
22# East Industrial Sewer Improvements	-	-	-	-	520,000	-	-	-	-	-	\$ 520,000
23# . unnyside Trunk Upsizing	-	-	-	-	260,000	-	-	-	-	-	\$ 260,000
24# Ponderosa Pkwy - McMillan Mesa	-	-	-	-	400,000	-	-	-	-	-	\$ 400,000
25# East Railhead Upsizing	-	-	-	-	-	500,000	-	-	-	-	\$ 500,000
26# University Heights Oversizing	-	-	-	-	-	-	500,000	-	-	-	\$ 500,000
27# Wildcat Solar Drying Facility	-	-	-	1,500,000	1,500,000	-	-	-	-	-	\$ 3,000,000
28 Rio Roof Replacement	-	-	-	-	-	2,500,000	-	-	-	-	\$ 2,500,000
29 Total CIP Budget (in current dollars)	\$ 31,716,357	\$ 10,200,000	\$ 9,491,000	\$ 8,250,000	\$ 5,780,000	\$ 5,050,000	\$ 2,300,000	\$ 2,350,000	\$ 2,175,000	\$ 2,090,000	\$ 79,402,357
30 Cumulative Projected Cost Escalation ¹	0.0%	4.0%	8.2%	12.5%	17.0%	21.7%	26.5%	31.6%	36.9%	42.3%	
31 Resulting CIP Funding Level	\$ 31,716,357	\$ 10,608,000	\$ 10,265,466	\$ 9,280,128	\$ 6,761,782	\$ 6,144,097	\$ 2,910,234	\$ 3,092,440	\$ 2,976,638	\$ 2,974,722	\$ 86,729,863
<i>#Fully or partially funded by growth</i>											
<i>*Projects designated for partial debt funding</i>											
<hr/>											
	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	Total Cost
Informed CIP Additional Costs											
32 Aging Infrastructure Replacements	-	-	-	-	1,000,000	650,000	500,000	-	125,000	210,000	\$ 2,485,000
33 Country Club Interceptor to WCH	-	3,000,000	3,000,000	3,000,000	-	-	-	-	-	-	\$ 9,000,000
36 Annual Unfunded Projects**	-	2,281,333	2,281,333	2,281,333	2,281,333	2,281,333	2,281,333	2,281,333	2,281,333	2,281,333	\$ 20,532,000
37 Subtotal - Additional Informed CIP Project Costs	\$ -	\$ 5,281,333	\$ 5,281,333	\$ 5,281,333	\$ 3,281,333	\$ 2,931,333	\$ 2,781,333	\$ 2,281,333	\$ 2,406,333	\$ 2,491,333	\$ 32,017,000
38 Total CIP Budget (in current dollars)	\$ 31,716,357	\$ 15,481,333	\$ 14,772,333	\$ 13,531,333	\$ 9,061,333	\$ 7,981,333	\$ 5,081,333	\$ 4,631,333	\$ 4,581,333	\$ 4,581,333	\$ 111,419,357
39 Cumulative Projected Cost Escalation ¹	0.0%	4.0%	8.2%	12.5%	17.0%	21.7%	26.5%	31.6%	36.9%	42.3%	
40 Resulting CIP Funding Level	\$ 31,716,357	\$ 16,100,587	\$ 15,977,756	\$ 15,220,910	\$ 10,600,478	\$ 9,710,512	\$ 6,429,508	\$ 6,094,519	\$ 6,269,871	\$ 6,520,666	\$ 124,641,163
<i>**see Table 2 for list of unfunded projects</i>											

Wastewater Capital Improvement Program Details

Table 1 - Major Projects

	Total Cost
1 Wildcat Expansion Design	\$ 25,000,000
2 WWTP Expansion - Design and Construction	\$ 220,000,000
Total Major CIP Projects	\$ 245,000,000

****Table 2 - Unfunded Projects**

	Total Cost
1 Anoxic Mixer	\$ 550,000
2 Influent Grit Removal	\$ 750,000
3 Improve Baffling and Weirs at Secondary Clarifiers	\$ 480,000
4 Add Post Anoxic Zone	\$ 2,152,000
5 Add Initial Anaerobic Zone	\$ 2,400,000
6 Replace All Three Anoxic Mixers on IFAS	\$ 500,000
7 Septage/Grease Station	\$ 5,400,000
8 Flagstaff Interceptor (Butler to Continental Country Club)	\$ 5,600,000
9 Wildcat Hill to Country Club	\$ 2,700,000
Total Unfunded CIP Projects	\$ 20,532,000

Reclaimed Water Capital Improvement Program (CIP)

	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	Total Cost
Approved CIP											
1 8" Bottleneck - Replacement*	1,521,983	1,500,000	900,000	-	-	-	-	-	-	-	\$ 3,921,983
2 Rio Reclaim Water PRV Relocation 16**	-	-	-	200,000	-	-	-	-	-	-	\$ 200,000
3 Rate Study- Reclaimed Portion	25,000	-	-	25,000	-	-	-	25,000	-	-	\$ 75,000
4 Reclaim Water Meters and Vaults*	-	200,000	-	-	-	-	-	-	-	-	\$ 200,000
5 Rio Reclaimed Pump Valve Actuators	40,000	40,000	40,000	-	-	-	-	-	-	-	\$ 120,000
6 BNSF Reclaimed Relocations	474,212	-	-	-	-	-	-	-	-	-	\$ 474,212
7 Total CIP Budget (in current dollars)	\$ 2,061,195	\$ 1,740,000	\$ 940,000	\$ 225,000	\$ -	\$ -	\$ -	\$ 25,000	\$ -	\$ -	\$ 4,991,195
8 Cumulative Projected Cost Escalation ¹	0.0%	4.0%	8.2%	12.5%	17.0%	21.7%	26.5%	31.6%	36.9%	42.3%	
9 Resulting CIP Funding Level	\$ 2,061,195	\$ 1,809,600	\$ 1,016,704	\$ 253,094	\$ -	\$ -	\$ -	\$ 32,898	\$ -	\$ -	\$ 5,173,492
<i>*Projects designated for partial debt funding</i>											

	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	Total Cost
Informed CIP Additional Costs											
10 Reclaim Recharge Outfall Project*	175,000	750,000	750,000	750,000	750,000	-	-	-	-	-	\$ 3,175,000
11 AWT Sampling and Testing	-	120,000	60,000	-	-	-	-	-	-	-	\$ 180,000
12 Reclaim System PRV/ARV Assessment	-	100,000	-	-	-	-	-	-	-	-	\$ 100,000
13 Buffalo Park Tank #1 Painting	-	-	-	-	400,000	-	-	-	-	-	\$ 400,000
14 Buffalo Park Chlorine Bldg Upgrade	-	-	1,500,000	1,500,000	-	-	-	-	-	-	\$ 3,000,000
15 Reclaim Loop - Fox Glenn to Country Club	-	-	-	-	-	-	-	-	2,500,000	2,500,000	\$ 5,000,000
16 Bushmaster Park Booster Communications & Flow Mete	-	300,000	300,000	-	-	-	-	-	-	-	\$ 600,000
17 WCH Reclaim Booster Building Equipment Upgrade	-	-	-	2,000,000	2,000,000	-	-	-	-	-	\$ 4,000,000
18 AWT Pilot Project	-	-	500,000	2,500,000	-	-	-	-	-	-	\$ 3,000,000
19 Reclaim Model Projects	-	-	-	-	-	500,000	500,000	500,000	500,000	500,000	\$ 2,500,000
20 Rio Storage Tank	-	-	-	-	-	500,000	-	-	-	-	\$ 500,000
21 WCH Storage tank	-	-	-	-	-	-	500,000	-	-	-	\$ 500,000
22 Annual Unfunded Projects**	-	3,250,000	3,250,000	3,250,000	3,250,000	3,250,000	3,250,000	3,250,000	3,250,000	3,250,000	\$ 29,250,000
23 Subtotal - Additional Informed CIP Project Costs	\$ 175,000	\$ 4,520,000	\$ 6,360,000	\$ 10,000,000	\$ 6,400,000	\$ 4,250,000	\$ 4,250,000	\$ 3,750,000	\$ 6,250,000	\$ 6,250,000	\$ 52,205,000
24 Total CIP Budget (in current dollars)	\$ 2,236,195	\$ 6,260,000	\$ 7,300,000	\$ 10,225,000	\$ 6,400,000	\$ 4,250,000	\$ 4,250,000	\$ 3,775,000	\$ 6,250,000	\$ 6,250,000	\$ 57,196,195
25 Cumulative Projected Cost Escalation ¹	0.0%	4.0%	8.2%	12.5%	17.0%	21.7%	26.5%	31.6%	36.9%	42.3%	
26 Resulting CIP Funding Level	\$ 2,236,195	\$ 6,510,400	\$ 7,895,680	\$ 11,501,734	\$ 7,487,095	\$ 5,170,775	\$ 5,377,606	\$ 4,967,642	\$ 8,553,557	\$ 8,895,699	\$ 68,596,383
<i>* Full or partially grant funded project. See table one for list of grant funded projects and grant funding amounts</i>											
<i>**See Table 2 for list of unfunded projects</i>											

Reclaimed Capital Improvement Program Details

+Table 1 - Grant Funded Projects

	Total Cost
1 Reclaim Recharge Outfall Project	\$ 3,175,000
Total Grant Funding	
	\$ 3,175,000

****Table 2 - Unfunded Projects**

	Total Cost
1 Recharge and Recovery Project	\$ 500,000
2 Water System Expansion - Westside	\$ 4,500,000
3 Water Line Loop - Foxglenn Park to Continental/WCH	\$ 12,800,000
4 Buffalo Park Chlorine Building Upgrade	\$ 2,100,000
5 Rio IP PRV Station Relocate	\$ 750,000
6 8" Bottleneck- Additional Funds	\$ 1,500,000
7 WCH Reclaim Pump Station Upgrade	\$ 4,500,000
8 Rio Reclaim Booster Pump Station - Upgrades	\$ 600,000
9 Master Radio Tower- Rio de Flag	\$ 200,000
10 Cemex and County Yard Flow Monitoring Stations	\$ 450,000
11 Bushmaster Booster Station, Pump and Automatic Valve	\$ 500,000
12 Rio Reclaim Distribution System upgrades	\$ 350,000
13 Reclaim Meter and Vault Upgrades (Program)	\$ 500,000
Total Unfunded CIP Projects	
	\$ 29,250,000

Water Capital Improvement Program (CIP)

	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	Total Cost
Approved CIP											
1 Beulah/University Waterline Relocation	\$ 404,103	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 404,103
2 Rio Flood Control Project - Waterline	1,725,000	-	550,000	-	-	-	-	-	-	-	\$ 2,275,000
3 Aging Water Infrastructure Replacements	266,000	200,000	200,000	200,000	900,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	\$ 6,766,000
4 Water Vault/PRV Replacement Program	475,512	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	\$ 2,275,512
5 Radio Read Meter Replacements*	800,000	1,300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	\$ 4,500,000
6 Reserve	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	\$ 3,000,000
7# Water System Master Plan	134,561	-	-	-	-	150,000	-	-	-	-	\$ 284,561
8# Water Rate Study	187,000	-	-	-	-	75,000	-	-	-	-	\$ 262,000
9 SCADA Well Upgrades	60,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	\$ 330,000
10# New Well and Pumphouse*	148,619	-	2,400,000	-	2,800,000	-	3,200,000	-	3,200,000	-	\$ 11,748,619
11 Coconino Estates - Bundle #4	938,807	-	-	-	-	-	-	-	-	-	\$ 938,807
12 Lake Mary Sedimentation Basins (Flocculations)*	4,392,905	3,430,000	-	-	-	-	-	-	-	-	\$ 7,822,905
13# Soliere Waterline 12" Upsizing	3,377,150	-	-	-	-	-	-	-	-	-	\$ 3,377,150
14# Lake Mary Land Acquisition*	-	3,000,000	-	-	-	-	-	-	-	-	\$ 3,000,000
15# McAllister-Well Design/Construction	148,912	-	-	-	-	-	-	-	-	-	\$ 148,912
16# Switzer Canyon Transmission Line Phase 4*	5,593,506	1,210,000	10,000	10,000	-	-	-	-	-	-	\$ 6,823,506
17 Switzer Canyon Transmission Line Phase 5*	-	500,000	2,500,000	4,000,000	-	-	-	-	-	-	\$ 7,000,000
18# Fort Tuthill Waterline Loop - Phase 2	-	-	-	-	-	2,000,000	-	-	-	-	\$ 2,000,000
19 Water Resources Master Plan	145,000	-	-	-	-	-	-	-	-	-	\$ 145,000
20 First Ave TREN Waterline Replacement	249,750	-	-	-	-	-	-	-	-	-	\$ 249,750
21# Fort Tuthill Well*	772,083	3,320,000	-	-	-	-	-	-	-	-	\$ 4,092,083
22 Inner Basin Waterline	8,178,788	8,178,788	-	-	-	-	-	-	-	-	\$ 16,357,576
23 Inner Basin Line - Schultz to Reservoir Plant	-	-	-	200,000	-	-	-	-	-	-	\$ 200,000
24 Inner Basin Spring Box and Collection Rehab	-	-	-	-	200,000	-	-	-	-	-	\$ 200,000
25 LM Raw Water Pipeline Rehab**	50,000	500,000	450,000	5,000,000	-	2,000,000	-	5,000,000	-	3,000,000	\$ 16,000,000
26 Zone B Storage	50,000	-	-	500,000	500,000	-	-	-	-	-	\$ 1,050,000
27 Lake Mary Dam Repairs	150,000	-	-	-	-	-	-	-	-	-	\$ 150,000
28 Red Gap Ranch Hydrogeologic Study	-	300,000	-	-	-	-	-	-	-	-	\$ 300,000
29# Red Gap Ranch ROW Survey and Mapping	-	150,000	-	-	-	-	-	-	-	-	\$ 150,000
30# Red Gap Ranch Water Quality Study	-	-	400,000	-	-	-	-	-	-	-	\$ 400,000
31 Railroad Springs #3 Storage Tank	-	-	-	-	-	300,000	1,200,000	-	-	-	\$ 1,500,000
32 Red Gap Ranch NEPA Environ Impact Study	-	-	-	-	-	-	250,000	-	-	-	\$ 250,000
33 Red Gap Ranch NEPA Environ Impact Study*	-	-	-	-	-	500,000	250,000	-	-	-	\$ 750,000
34# Red Gap Ranch Well Completion (10 Wells)	-	-	-	-	-	-	-	-	-	450,000	\$ 450,000
35# JW Powell Waterline Oversizing	-	1,150,000	1,150,000	-	-	-	-	-	-	-	\$ 2,300,000
36# Pine Del Waterline Upsizing	-	-	-	-	-	500,000	1,000,000	1,000,000	-	-	\$ 2,500,000
37# Red Gap Ranch Geotechnical Investigation	-	-	-	-	-	125,000	-	-	-	-	\$ 125,000
38 Red Gap Ranch Geotechnical Investigation*	-	-	-	-	-	375,000	-	-	-	-	\$ 375,000
39# Red Gap Ranch Well Field Piping Design	-	-	-	-	-	-	-	-	750,000	-	\$ 750,000
40 Woody Mountain Wellfield Powerline Burial*	-	-	-	-	1,500,000	500,000	-	-	-	-	\$ 2,000,000
41 Fort Valley Shopping Center	-	-	100,000	500,000	-	-	-	-	-	-	\$ 600,000
42 Turquoise WL Replacement	-	-	-	-	-	-	100,000	1,000,000	-	-	\$ 1,100,000
43 Total CIP Budget (in current dollars)	\$ 28,647,696	\$ 23,868,788	\$ 8,690,000	\$ 11,340,000	\$ 6,830,000	\$ 8,355,000	\$ 7,830,000	\$ 8,830,000	\$ 5,780,000	\$ 5,280,000	\$ 115,451,484
44 Cumulative Projected Cost Escalation ¹	0.0%	4.0%	8.2%	12.5%	17.0%	21.7%	26.5%	31.6%	36.9%	42.3%	
45 Resulting CIP Funding Level	\$ 28,647,696	\$ 24,823,540	\$ 9,399,104	\$ 12,755,958	\$ 7,990,134	\$ 10,165,135	\$ 9,907,448	\$ 11,619,678	\$ 7,910,329	\$ 7,515,086	\$ 130,734,107
#Fully or partially funded by growth *Projects designated for partial debt funding ** Full or partially grant funded project. See table three for list of grant funded projects and grant funding amounts											

	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	Total Cost
Informed CIP Additional Costs											
46 Aging Water Infrastructure Replacements	-	-	1,800,000	2,300,000	1,600,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	\$ 13,200,000
47 New Well and Pumphouse	-	-	-	3,000,000	-	3,500,000	-	4,000,000	-	4,000,000	\$ 14,500,000
48 Fort Tuthill Well	-	-	3,500,000	-	-	-	-	-	-	-	\$ 3,500,000
49 Inner Basin Line - Schultz to Reservoir Plant	-	-	-	-	-	3,000,000	-	3,000,000	-	2,000,000	\$ 8,000,000
50 Inner Basin Spring Box and Collection Rehab	-	-	-	-	-	-	2,000,000	2,000,000	-	-	\$ 4,000,000
51 Red Gap Ranch ROW Acquisition Segments 1-3	-	-	-	-	-	1,000,000	1,000,000	-	-	-	\$ 2,000,000
52 Woody Mountain Wellfield Powerline Burial	-	-	-	-	-	1,500,000	-	-	-	-	\$ 1,500,000
53 ADOT Cast Iron	-	-	-	-	-	-	-	1,500,000	2,000,000	2,000,000	\$ 5,500,000
54 Annual Unfunded Projects**	-	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	\$ 9,000,000
55 Subtotal - Additional Informed CIP Project Costs	\$ -	\$ 1,000,000	\$ 6,300,000	\$ 6,300,000	\$ 2,600,000	\$ 11,500,000	\$ 5,500,000	\$ 13,000,000	\$ 4,500,000	\$ 10,500,000	\$ 61,200,000
56 Total CIP Budget (in current dollars)	\$ 28,647,696	\$ 24,868,788	\$ 14,990,000	\$ 17,640,000	\$ 9,430,000	\$ 19,855,000	\$ 13,330,000	\$ 21,830,000	\$ 10,280,000	\$ 15,780,000	\$ 176,651,484
57 Cumulative Projected Cost Escalation ¹	0.0%	4.0%	8.2%	12.5%	17.0%	21.7%	26.5%	31.6%	36.9%	42.3%	
58 Resulting CIP Funding Level	\$ 28,647,696	\$ 25,863,540	\$ 16,213,184	\$ 19,842,601	\$ 11,031,766	\$ 24,156,643	\$ 16,866,703	\$ 28,726,791	\$ 14,068,890	\$ 22,459,860	\$ 207,877,674
**See Table 2 for list of unfunded projects											

Water Capital Improvement Program Details

Table 1 - Major Projects

	Total Cost
1 Red Gap Ranch Pipeline 100% Design	\$ 12,000,000
2 Red Gap Ranch Pipeline Construction	\$ 260,000,000
Total Major CIP Projects	\$ 272,000,000

****Table 2 - Unfunded Projects**

	Total Cost
1 North Reservoir Treatment Plant	\$ 1,200,000
2 Main Tank Rehabilitation	\$ 1,200,000
3 Christmas Tree Tank Rehabilitation	\$ 500,000
4 Paradise Tank Rehabilitation	\$ 500,000
5 Bonito Load Out Station	\$ 750,000
6 Kinlani Tank Rehabilitation	\$ 100,000
7 Inner Basin Diesel Engine Replacements (IB#9, IB#11, IB#14)	\$ 150,000
8 Flow Meter Replacements	\$ 500,000
9 Inner Basin Pipeline Assessment/Design	\$ 500,000
10 Inner Basin Pipeline Rehabilitation	\$ 2,500,000
11 Lake Mary Water Treatment Plant Chlorine Dioxide Generator Replacement	\$ 200,000
12 Tuthill Booster Station Rehabilitation	\$ 300,000
Total Unfunded CIP Projects	\$ 8,400,000

+Table 3 - Grant Funded Projects

	Total Cost
1 Radio Read Meter Replacements	\$ 1,500,000
2 Lake Mary Sedimentation Basins (Flocculations)	\$ 4,125,000
3 Inner Basin Waterline	\$ 16,107,576
4 LM Raw Water Pipeline Rehab	\$ 1,500,000
5 Red Gap Ranch NEPA Environ Impact Study	\$ 750,000
6 Red Gap Ranch Geotechnical Investigation	\$ 375,000
7 Woody Mountain Wellfield Powerline Burial	\$ 1,500,000
Total Grant Funding	\$ 25,857,576

Pink Highlight = Five-Year Study Updates
 Yellow Highlight = 2015 Sewer Master Plan
 Green Highlight = Project Triggered by Development or Other Initiative

Wastewater Capital Improvement Program (CIP)

	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	Total Cost	
Approved CIP												
1	Beulah/University Sewer Ext	\$ 300,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 300,000	
2#	Master Plan - Collections	-	-	-	400,000	-	-	-	-	-	\$ 400,000	
3	Energy Efficiency Program	206,637	-	-	-	-	-	-	-	-	\$ 206,637	
4	Rio Two Bar Screens	515,917	-	-	-	-	-	-	-	-	\$ 515,917	
5	Aging Infrastructure Replacements	-	-	1,000,000	-	1,000,000	1,350,000	1,500,000	2,000,000	1,875,000	\$ 10,515,000	
6	Reserve for Improvements	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	\$ 3,000,000	
7	Rio de Flag Sewer Relocations	3,300,000	-	945,000	-	-	-	-	-	-	\$ 4,245,000	
8	Coconino Estates - Bundle #4	875,276	-	-	-	-	-	-	-	-	\$ 875,276	
9#	Wildcat Dewatering Facility	-	1,400,000	1,700,000	3,000,000	-	-	-	-	-	\$ 6,100,000	
10#	Sewer Rate Study	25,000	-	-	50,000	-	-	50,000	-	-	\$ 125,000	
11	First Ave Rte 66 Sewer Replacement	500,990	-	-	-	-	-	-	-	-	\$ 500,990	
12	Country Club Interceptor to WCH	300,000	-	-	-	-	-	-	-	-	\$ 300,000	
13	Rio Solids Treatment*	22,618,500	2,000,000	-	-	-	-	-	-	-	\$ 24,618,500	
14	Sewer Collection AIR Assessments	50,000	-	-	-	-	-	-	-	-	\$ 50,000	
15	Wildcat New Elect./Fiber Upgrade*	-	2,000,000	1,246,000	-	-	-	-	-	-	\$ 3,246,000	
16	Wildcat Roof Replacement	1,000,000	2,000,000	-	-	-	-	-	-	-	\$ 3,000,000	
17	Wildcat UV Disinfection	500,000	2,500,000	2,500,000	-	-	-	-	-	-	\$ 5,500,000	
18	Rio Main Motor Control Centers	-	-	300,000	1,500,000	1,800,000	-	-	-	-	\$ 3,600,000	
19	BNSF Sewer Relocations	474,037	-	-	-	-	-	-	-	-	\$ 474,037	
20	Facility Master Plan Update	750,000	-	-	-	-	400,000	-	-	-	\$ 1,150,000	
21	Headworks Rehab	-	-	1,500,000	1,500,000	-	-	-	-	-	\$ 3,000,000	
22#	East Industrial Sewer Improvements	-	-	-	-	520,000	-	-	-	-	\$ 520,000	
23#	unnyside Trunk Upsizing	-	-	-	-	260,000	-	-	-	-	\$ 260,000	
24#	Ponderosa Pkwy - McMillan Mesa	-	-	-	-	400,000	-	-	-	-	\$ 400,000	
25#	East Railhead Upsizing	-	-	-	-	-	500,000	-	-	-	\$ 500,000	
26#	University Heights Oversizing	-	-	-	-	-	-	500,000	-	-	\$ 500,000	
27#	Wildcat Solar Drying Facility	-	-	-	1,500,000	1,500,000	-	-	-	-	\$ 3,000,000	
28	Rio Roof Replacement	-	-	-	-	-	2,500,000	-	-	-	\$ 2,500,000	
29	Total CIP Budget (in current dollars)	\$ 31,716,357	\$ 10,200,000	\$ 9,491,000	\$ 8,250,000	\$ 5,780,000	\$ 5,050,000	\$ 2,300,000	\$ 2,350,000	\$ 2,175,000	\$ 2,090,000	\$ 79,402,357
30	Cumulative Projected Cost Escalation ¹	0.0%	4.0%	8.2%	12.5%	17.0%	21.7%	26.5%	31.6%	36.9%	42.3%	
31	Resulting CIP Funding Level	\$ 31,716,357	\$ 10,608,000	\$ 10,265,466	\$ 9,280,128	\$ 6,761,782	\$ 6,144,097	\$ 2,910,234	\$ 3,092,440	\$ 2,976,638	\$ 2,974,722	\$ 86,729,863
	#Fully or partially funded by growth											
	*Projects designated for partial debt funding											
Informed CIP Additional Costs												
32	Aging Infrastructure Replacements	-	-	-	-	1,000,000	650,000	500,000	-	125,000	210,000	\$ 2,485,000
33	Country Club Interceptor to WCH	-	3,000,000	3,000,000	3,000,000	-	-	-	-	-	-	\$ 9,000,000
36	Annual Unfunded Projects**	-	2,281,333	2,281,333	2,281,333	2,281,333	2,281,333	2,281,333	2,281,333	2,281,333	2,281,333	\$ 20,532,000
37	Subtotal - Additional Informed CIP Project Costs	\$ -	\$ 5,281,333	\$ 5,281,333	\$ 5,281,333	\$ 3,281,333	\$ 2,931,333	\$ 2,781,333	\$ 2,281,333	\$ 2,406,333	\$ 2,491,333	\$ 32,017,000
38	Total CIP Budget (in current dollars)	\$ 31,716,357	\$ 15,481,333	\$ 14,772,333	\$ 13,531,333	\$ 9,061,333	\$ 7,981,333	\$ 5,081,333	\$ 4,631,333	\$ 4,581,333	\$ 4,581,333	\$ 111,419,357
39	Cumulative Projected Cost Escalation ¹	0.0%	4.0%	8.2%	12.5%	17.0%	21.7%	26.5%	31.6%	36.9%	42.3%	
40	Resulting CIP Funding Level	\$ 31,716,357	\$ 16,100,587	\$ 15,977,756	\$ 15,220,910	\$ 10,600,478	\$ 9,710,512	\$ 6,429,508	\$ 6,094,519	\$ 6,269,871	\$ 6,520,666	\$ 124,641,163
	**see Table 2 for list of unfunded projects											

Wastewater Capital Improvement Program Details

Table 1 - Major Projects

	Total Cost
1 Wildcat Expansion Design	\$ 25,000,000
2 WWTP Expansion - Design and Construction	\$ 220,000,000
Total Major CIP Projects	\$ 245,000,000

****Table 2 - Unfunded Projects**

	Total Cost
1 Anoxic Mixer	\$ 550,000
2 Influent Grit Removal	\$ 750,000
3 Improve Baffling and Weirs at Secondary Clarifiers	\$ 480,000
4 Add Post Anoxic Zone	\$ 2,152,000
5 Add Initial Anaerobic Zone	\$ 2,400,000
6 Replace All Three Anoxic Mixers on IFAS	\$ 500,000
7 Septage/Grease Station	\$ 5,400,000
8 Flagstaff Interceptor (Butler to Continental Country Club)	\$ 5,600,000
9 Wildcat Hill to Country Club	\$ 2,700,000
Total Unfunded CIP Projects	\$ 20,532,000

Reclaimed Water Capital Improvement Program (CIP)

	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	Total Cost
Approved CIP											
1 8" Bottleneck - Replacement*	1,521,983	1,500,000	900,000	-	-	-	-	-	-	-	\$ 3,921,983
2 Rio Reclaim Water PRV Relocation 16**	-	-	-	200,000	-	-	-	-	-	-	\$ 200,000
3 Rate Study- Reclaimed Portion	25,000	-	-	25,000	-	-	-	25,000	-	-	\$ 75,000
4 Reclaim Water Meters and Vaults*	-	200,000	-	-	-	-	-	-	-	-	\$ 200,000
5 Rio Reclaimed Pump Valve Actuators	40,000	40,000	40,000	-	-	-	-	-	-	-	\$ 120,000
6 BNSF Reclaimed Relocations	474,212	-	-	-	-	-	-	-	-	-	\$ 474,212
7 Total CIP Budget (in current dollars)	\$ 2,061,195	\$ 1,740,000	\$ 940,000	\$ 225,000	\$ -	\$ -	\$ -	\$ 25,000	\$ -	\$ -	\$ 4,991,195
8 Cumulative Projected Cost Escalation ¹	0.0%	4.0%	8.2%	12.5%	17.0%	21.7%	26.5%	31.6%	36.9%	42.3%	
9 Resulting CIP Funding Level	\$ 2,061,195	\$ 1,809,600	\$ 1,016,704	\$ 253,094	\$ -	\$ -	\$ -	\$ 32,898	\$ -	\$ -	\$ 5,173,492
<i>*Projects designated for partial debt funding</i>											

	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	Total Cost
Informed CIP Additional Costs											
10 Reclaim Recharge Outfall Project*	175,000	750,000	750,000	750,000	750,000	-	-	-	-	-	\$ 3,175,000
11 AWT Sampling and Testing	-	120,000	60,000	-	-	-	-	-	-	-	\$ 180,000
12 Reclaim System PRV/ARV Assessment	-	100,000	-	-	-	-	-	-	-	-	\$ 100,000
13 Buffalo Park Tank #1 Painting	-	-	-	-	400,000	-	-	-	-	-	\$ 400,000
14 Buffalo Park Chlorine Bldg Upgrade	-	-	1,500,000	1,500,000	-	-	-	-	-	-	\$ 3,000,000
15 Reclaim Loop - Fox Glenn to Country Club	-	-	-	-	-	-	-	-	2,500,000	2,500,000	\$ 5,000,000
16 Bushmaster Park Booster Communications & Flow Mete	-	300,000	300,000	-	-	-	-	-	-	-	\$ 600,000
17 WCH Reclaim Booster Building Equipment Upgrade	-	-	-	2,000,000	2,000,000	-	-	-	-	-	\$ 4,000,000
18 AWT Pilot Project	-	-	500,000	2,500,000	-	-	-	-	-	-	\$ 3,000,000
19 Reclaim Model Projects	-	-	-	-	-	500,000	500,000	500,000	500,000	500,000	\$ 2,500,000
20 Rio Storage Tank	-	-	-	-	-	500,000	-	-	-	-	\$ 500,000
21 WCH Storage tank	-	-	-	-	-	-	500,000	-	-	-	\$ 500,000
22 Annual Unfunded Projects**	-	3,250,000	3,250,000	3,250,000	3,250,000	3,250,000	3,250,000	3,250,000	3,250,000	3,250,000	\$ 29,250,000
23 Subtotal - Additional Informed CIP Project Costs	\$ 175,000	\$ 4,520,000	\$ 6,360,000	\$ 10,000,000	\$ 6,400,000	\$ 4,250,000	\$ 4,250,000	\$ 3,750,000	\$ 6,250,000	\$ 6,250,000	\$ 52,205,000
24 Total CIP Budget (in current dollars)	\$ 2,236,195	\$ 6,260,000	\$ 7,300,000	\$ 10,225,000	\$ 6,400,000	\$ 4,250,000	\$ 4,250,000	\$ 3,775,000	\$ 6,250,000	\$ 6,250,000	\$ 57,196,195
25 Cumulative Projected Cost Escalation ¹	0.0%	4.0%	8.2%	12.5%	17.0%	21.7%	26.5%	31.6%	36.9%	42.3%	
26 Resulting CIP Funding Level	\$ 2,236,195	\$ 6,510,400	\$ 7,895,680	\$ 11,501,734	\$ 7,487,095	\$ 5,170,775	\$ 5,377,606	\$ 4,967,642	\$ 8,553,557	\$ 8,895,699	\$ 68,596,383
<i>* Full or partially grant funded project. See table one for list of grant funded projects and grant funding amounts</i>											
<i>**See Table 2 for list of unfunded projects</i>											

INFORMATION TO SUPPLEMENT QUESTIONS FROM COUNCIL & COMMISSION:

1. Municipal Services Bill

What charges on the Municipal Services Bill are being assessed as part of the rate study: the base meter charge, water usage, and sewer charge.

The Energy Surcharge is a water-related charge based on the cost of energy to produce water that is adjusted each year. That cost can vary significantly depending on how much production comes from groundwater wells compared to surface water from Upper Lake Mary and the Inner Basin.

Bill Date: 08/31/2023

Page 2 of 2

Current Activity	USAGE	RATE	AMOUNT
Base Meter Charge			16.64
Tier 1 Residential Water	0,700	3.44	2.41
Energy Surcharge	0,700	1.24	0.87
Water Protection Fee	0,700	0.53	0.37
Sewer Charge	0,833	5.35	4.46
Stormwater Fee			8.38
Solid Waste Charge			25.45
Env Mgt Program Fee			1.42
State and Local Taxes			1.85

Example Residential Municipal Services Bill

Historical Usage



PREVIOUS BALANCE:	\$62.18
PAYMENT (08/17/2023):	\$-62.18
BALANCE FORWARD:	\$0.00
CURRENT CHARGES:	\$61.85
TOTAL AMOUNT DUE:	\$61.85

MESSAGE CENTER

If you are experiencing a financial hardship and cannot pay the amount due please visit www.flagstaff.az.gov/4590/Payment-Assistance or call us at 928-213-2231 to learn more about payment assistance programs and options available. Income based assistance programs are available!

Meter Number:	Previous Read:	Current Read:	Usage/Ave Daily:	Service Period:	Service Days:
15314861	783,050	783,750	700 / 25	07/27/2023 - 08/23/2023	27

2. Information on the Scottsdale Water Campus Advanced Water Treatment Facility (AWTF)

Scottsdale’s Advanced Water Treatment Facility (AWTF) was designed to greatly reduce total dissolved solids (TDS) in treated wastewater using a costly treatment process of reverse osmosis to a level sufficient for their golf courses. Any excess treated water is recharged to the aquifer. Flagstaff’s wastewater is low enough in TDS that levels in reclaimed water are sufficient for golf course irrigation.

While Scottsdale does boast they are removing unregulated contaminants prior to recharging the aquifer the removal of unregulated constituents did not drive the development of the AWTF initially. The AWTF was funded by golf courses starting in the 1980’s as a solution to the other options available

to them at the time: water high in Total Dissolved Solids (TDS) from the Colorado River through the Central Arizona Project canal, or water high in TDS as reclaimed water. The AWTF was funded by golf courses for the sole purpose of irrigation water with acceptable TDS levels. Fast forward 20 years and the AWTF positioned Scottsdale nicely to add a side treatment train to test water intended for direct potable reuse, or “Advanced Purified Water” as currently defined by the Arizona Department of Environmental Quality (ADEQ).

These short summaries and video on Scottsdale’s website provide a nice synopsis on the development of the AWTF and delivery system.

<https://www.amwua.org/blog/partnership-makes-desert-golf-courses-sustainable>

<https://www.scottsdaleaz.gov/water/recycled-water>

The statement that Flagstaff is contaminating the aquifer with our treatment wastewater effluent was made at the Council Retreat. Scottsdale may have decided that Class A+ Reclaimed water was not suitable for recharging the drinking water aquifer however it is permissible under state law to recharge a drinking water aquifer with treated effluent if the quality of water meets Aquifer Protection Permit requirements. The City of Flagstaff’s treated effluent does meet those APP requirements. Also, Flagstaff’s raw water quality and wastewater quality are different than Scottsdale’s. Scottsdale may have had an exceedance of a regulatory requirement that is technically “contamination” that is addressed with the AWTF.

3. Annual Operating and Operating Capital Budgets:

This information should be provided soon.

4. Red Gap Ranch Design & Construction Costs – Deferral with Water Conservation

Red Gap Ranch is both a resiliency project and a capacity project. With 80% of Flagstaff’s water sources derived from forested terrain, there is a high risk of impact from wildfires and drought. The focus is on finding partners and Federal funding at this time. The only costs in the CIP related to securing the right of way – about \$3M – is in the 10-year CIP.

5. Deferring any projects on the CIP list with water conservation

Water conservation efforts do not necessarily negate the need to perform regular maintenance and replacement of aging assets. Most of the projects on the Water CIP list are related to the maintenance of aging infrastructure. For new development, customer demand is assessed through a Water & Sewer Impact Analysis (WSIA). When that new demand requires infrastructure to be upsized, development pays for that added capacity through capacity fees or other means.

6. Avoided costs – Flagstaff rates could be significantly higher if not for the actions and investments to conserve

Our current rates would be much higher if it were not for 30 years of continued action to conserve water. Some actions to conserve water through customer and operational efficiencies can cost less costly than new supplies. This is true for Flagstaff where water demand has decreased by over 50% per person since the peak in 1989. Actions such as tiered rates for residential customers, toilet and other fixture rebates, and utility efficiencies, have delayed the need to bring on new sources of water from

Red Gap Ranch. The lower demand achieved through water conservation is factored into the timing for new groundwater wells or Red Gap Ranch. Flagstaff's Water Conservation Strategic Plan is on track to meet a target of a total gpcd rate of 80. The Alliance for Water Efficiency evaluated the effects of water conservation on rates for Tucson, AZ, Gilbert, AZ, Los Angeles, CA, and Westminster, CO in several publications available at [Financing Sustainable Water | Alliance for Water Efficiency](#).

Financial Considerations Water Services





Financial Considerations



Type of Funding (no priority order)	Water	Wastewater	Reclaimed Wtr
User Fees/Pay as you go <ul style="list-style-type: none"> Increase user fees to fund projects 	Yes	Yes	Yes
Capacity Fees – Growth related portion only <ul style="list-style-type: none"> Increase capacity fees to fund 	Yes, Partially	Yes, Partially	No
Debt Financing (Revenue Bonds/Water Infrastructure Loans) <ul style="list-style-type: none"> Will need User Fee and/or Capacity Fee increases 	Yes, within policy limits	Yes, within policy limits	Yes, within policy limits
Federal and/or State Funding <ul style="list-style-type: none"> Future federal infrastructure bills 	Yes	Yes	Yes
Re-prioritize or eliminate projects in existing capital improvement plan	Yes	Yes	Yes
General Obligation Bonds – Secondary Property Tax <ul style="list-style-type: none"> Possible for November election (or later) 	Yes	Yes	Yes
General Fund Support	Yes	Yes	Yes
Sales Tax – Possible future election	Yes	Yes	Yes