



2023-2027

Capital Improvement Plan

Monday, March 21, 2022
City Council work session



Today's Agenda

Section I: Property Tax-Backed Issuances

- Background
- Ability to Pay
- Tax Rates
- Considerations When Reorganizing Projects
- Capital Projects Overview
- O&M Impacts of CIP
- Discussion

Section II: Water & Sewer Revenue-Backed Issuance

- Background/Process Overview
- Capital Projects Overview
- O&M Impacts of CIP
- Discussion

Section III: Surface Water Plant Update

Future with Purpose



<p>Why (Community)</p>	<p align="center"><u>Strategic Priorities</u> <i>Helps to focus the attention of Council and Staff on priorities important to creating community</i></p>					<p><u>Community Survey</u> <i>Community feedback that influences planning</i></p>					
<p>How (Strategic Planning)</p>	<p align="center"><u>Comprehensive Plan</u> <i>The policy document that assists in anticipating and guiding future development trends and service needs to promote balanced growth and a superior quality of life</i></p>										
	<p align="center">Sound Infrastructure</p> <table border="0"> <tr> <td data-bbox="308 644 711 1017"> <p><u>Water Master Plan</u> <i>Keeps water coming to Pearland for years to come</i></p> </td> <td data-bbox="711 644 1114 1017"> <p><u>Wastewater Master Plan</u> <i>Treats the water coming out of houses and businesses</i></p> </td> <td data-bbox="1114 644 1518 1017"> <p><u>Drainage Master Plan</u> <i>Keeps water moving out of Pearland</i></p> </td> <td data-bbox="1518 644 1921 1017"> <p><u>Thoroughfare Plan</u> <i>Helps to keep traffic moving through Pearland</i></p> </td> <td data-bbox="1921 644 2134 1017"> <p><u>Multimodal Plan</u> <i>Helps shape how people get around Pearland</i></p> </td> </tr> </table>					<p><u>Water Master Plan</u> <i>Keeps water coming to Pearland for years to come</i></p>	<p><u>Wastewater Master Plan</u> <i>Treats the water coming out of houses and businesses</i></p>	<p><u>Drainage Master Plan</u> <i>Keeps water moving out of Pearland</i></p>	<p><u>Thoroughfare Plan</u> <i>Helps to keep traffic moving through Pearland</i></p>	<p><u>Multimodal Plan</u> <i>Helps shape how people get around Pearland</i></p>	<p align="center">Connected Community</p> <p><u>Parks and Recreation Master Plan</u> <i>Leverages community feedback to provide direction for quality of life features in Pearland</i></p>
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What (The Output of Planning)	**Capital Improvement Plan** *Helps to set the infrastructure priorities over a rolling five-year period*						
Future Land Use Map *Provides a long-term view of how land is developed in Pearland*							
Staffing and Utilization Plans							
Police Department Plan					**Fire Department Plan**		
Annual Budget *Funding mechanism for many projects in Pearland*							
Regional Plans							
HGAC Transportation Improvement Plan *Multimodal plan of transportation infrastructure and service improvements*					**Brazoria County CIP** **Harris County CIP** **Ft. Bend County CIP**		

CIP Planning & Budgeting Overview



Today's meeting is a culmination of:

- Pre-award Memos
- Project Update Memos
- Bi-Monthly Milestone Report
- Quarterly CIP Update Series

Today we will discuss what we are building, and what it takes to fund, operate and maintain these projects.

2023 CIP Planning & Budgeting Overview



Past CIP Update Series

- Monday, May 17, 2021, 4:00 pm – Water & Wastewater CIP Update Series
- Monday, September 20, 2021, 4:00 pm – Drainage & Facilities CIP Update Series
- Monday, December 13, 2021, 4:00 pm – Transportation & Parks CIP Update Series

Upcoming CIP Items

- [Monday, March 21, 2022, 4:00 pm – CIP Workshop](#)
- Monday, April 18, 2022, 6:30 pm – Planning and Zoning
- Monday, June 13, 2022, 6:30 pm – CIP Budget Adoption
- Monday, June 20, 2022, 4:00 pm – Drainage & Transportation CIP Update Series
- Monday, October 17, 2022, 4:00 pm – Parks & Facilities CIP Update Series
- Monday, December 12, 2022, 4:00 pm – Water & Wastewater CIP Update Series

Purpose of CIP Update Series

- Inform Council on long-term vision, project status, upcoming needs, & O&M impacts (including staff).
- Holistic view of the CIP includes planning, design, construction, operation, and long-term maintenance of the City's infrastructure.

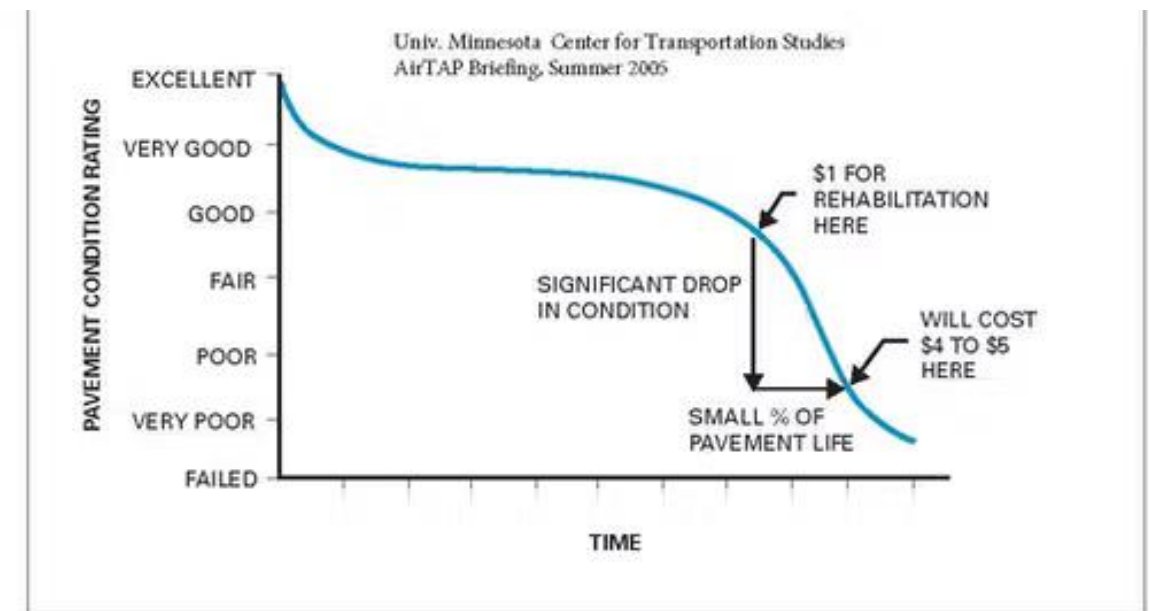


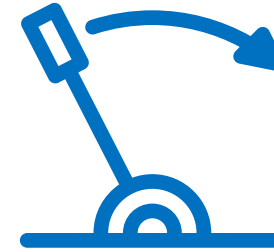
Figure 1. Preventive maintenance preserves the condition of the pavement and costs significantly less than rehabilitation.

Capital Project Financing Overview For FY23



Policy & Planning

- March 2022: CIP Workshop
- June 2022: CIP Adoption
- July 2022: CIP Discussion & Adoption



Council decisions here will affect *FY24* I&S Tax Rate and Utility Rate

Execution

- August 2022: FY23 Budget Presented
- September 2022: FY23 Budget Adopted
- October 2022: Intent to Reimburse Approved

Commits funding to allow work to begin on FY23 projects

Operational

- May 2023: Annual Debt Issuance Approved
- June 2023: Notices Posted, Rating/Due Diligence Calls
- July 2023: Sale of Debt
- **Fiscal Year 2023: Payments for FY22 Debt Issuance Begin**



Section 1

Property Tax Backed Issuances

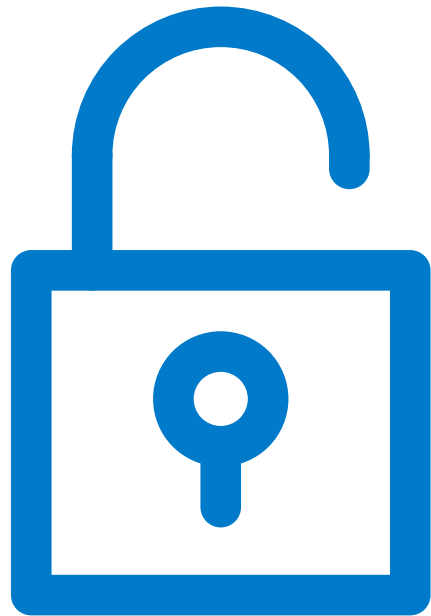


Relationship Between CIP & Taxes

Property Tax Backed Projects



Current Debt Obligations



Future Debt Obligations



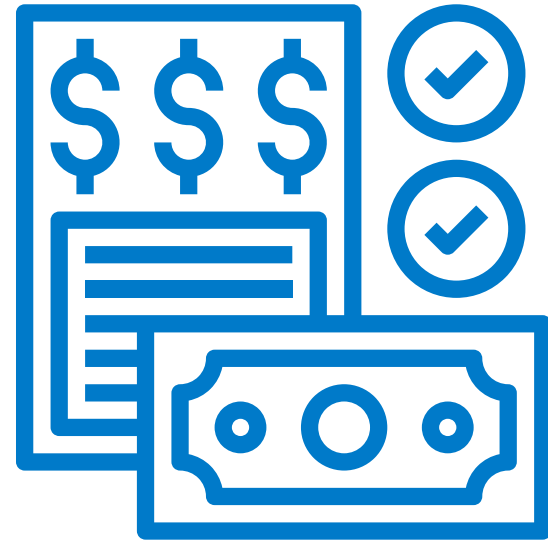
Funding Impacts



Council Lever for FY24 Debt Service Tax Rate

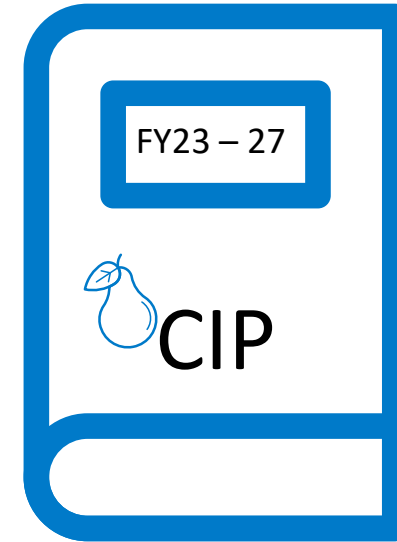


Current
Debt
Obligation

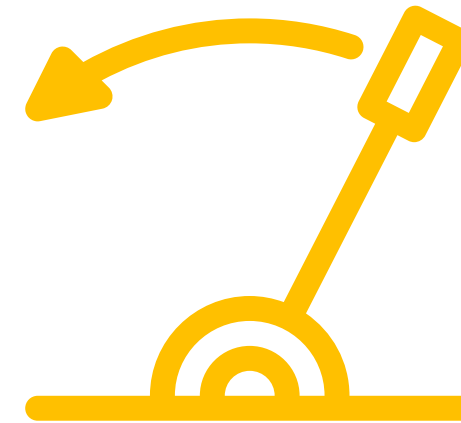


FY22 CIP Debt Sale

The upcoming debt issuance will impact the I&S rate in **FY23**



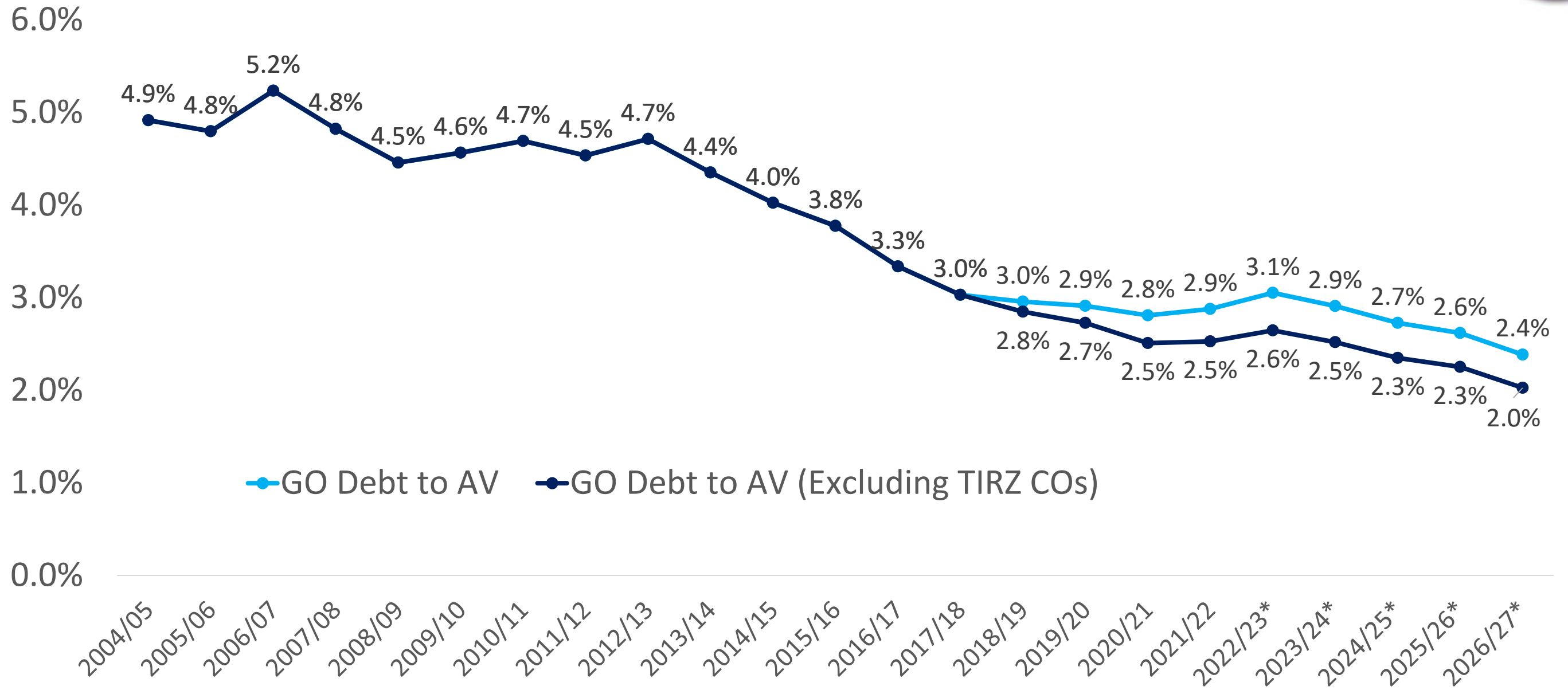
FY23 CIP



Increasing/Decreasing the FY23 CIP debt issuance will impact the Debt Service tax rate in **FY24**



Debt to AV Rate Over Time



*Estimated



TIRZ Background

Currently, the City has **\$3.1 billion in valuation within the Tax Increment Refinancing Zone #2 (TIRZ)**. The City does *not* receive revenue in the form of property taxes from this valuation. Instead, **the City receives an administrative fee received in the General Fund (operations) from the TIRZ**, which amounts to roughly 64% of property tax revenue. That administrative fee is for operations only, not available for debt service.

In 2029, the TIRZ will expire and the full valuation of the TIRZ will be added to the City's tax roll. When that happens, an additional \$3.1+ billion in valuation will be included in the debt tax rate calculation.

As a result, the debt component of the tax rate will drop sharply in FY30.

Bond Sale Proceeds



Summary of Bond Sale Proceeds
Capital Improvement Program (2023-2027 CIP)

Proposed CIP				
Fiscal Year	Issue	Rate	Proceeds*	Assumed AV Growth Rate
2021	CO & GO (City)	\$0.4150	\$26,566,250	7.03%
	CO (TIRZ)		\$18,472,464	
2022	CO & GO (City)	\$0.3920	\$36,276,418	4.28%
	CO (TIRZ)		\$8,380,000	
2023**	CO & GO (City)	TBD	\$53,174,965	4.5%
	CO (TIRZ)		\$9,394,000	
2024	CO & GO (City)	\$0.4300	\$21,971,622	4.0%
2025	CO & GO (City)	\$0.4300	\$15,685,000	3.5%
2026	CO & GO (City)	\$0.4250	\$25,800,000	3%
2027	CO & GO (City)	\$0.3850	\$0	2%

*Proceeds reflect the amount of revenue from bond sales inclusive of bond premiums, not the total amount being borrowed.

** Reflects revenue from a future GO bond package



FY19 Bond Material Rate Projection vs Actuals & New Projections

What Changed?

- Issuance Amounts
 - 2019 Bond Materials based on Intent to Reimburse adopted October 2018. We have issued less than anticipated.
- AV Growth
 - AV Growth not available for FY23 yet.
 - Assumes 4.5% growth in FY23 for illustration purposes
- Future Years AV Growth Assumption
 - Model assumes that AV growth slows down in future years
- Ratio of O&M to Debt is currently 44% : 56%
- In-City MUD Rebates will likely grow in FY23, placing pressure on the I&S portion of the property tax rate.

	FY2019 Bond Public Information Materials	Actual Tax Rates and Projected Rates
	May 2019	March 2022
2020	\$0.4550	\$0.4344
2021	\$0.4875	\$0.4150
2022	\$0.4875	\$0.3920
2023	\$0.4875	TBD
2024	\$0.4875	\$0.4300*
2025	\$0.4875	\$0.4300*
2026	\$0.4875	\$0.4250*
2027	\$0.4875	\$0.3850*

*Projected tax rates



Market Review and Analysis

- Staff is continually reviewing the market and working with contractors and consultants on reviewing information provided
- This is uncharted times due to material constraints and cost increases
- Consumer Price Index changes in Houston – 6.6% over last 12 months
- We are seeing supply lead times increase due to shipping and industry supply constraints
 - Steel – 2 months
 - Roofing and Decking material – 9 months
 - Ductile Iron Pipe – 6 months
- US Bureau of Labor Statistics have steel mill at 141.6% over the 12 month
- **Engineering News Record (December 2021) is indicating 2022 will be busy for the construction industry and that projects need to build in time and contingency**
- **Bloomberg (December 2021) article indicated that 2022 will be another "Bumpy Year" as many industry experts previously predicted that 2022 would be better.**



FY22 Project Debt Sale Review

- Occurred in February and March
- Review of the schedule, letting date and funding needs for each project
- This review adjusts the debt sale amount from the October 2021 Intent to Reimburse amount to actual needs



Capital Improvement Program (FY22-FY23)

Priority 1: These projects are tied to outside funding obligations

General Government (Non-Enterprise Fund)

Project	Total Project Budget	Debt Thru FY22	Proposed FY23 Debt Issuance - Impacts FY24 DS Rate (0.4300)	Future Debt (FY24+)	Project in Progress	Tied to Another Project	Voter Approved (GO)	AFA/TIP Commitment	TIRZ	GLO Grant (100% Grant Funds)	Interlocal	Certificates of Obligation	Cash/Other Funding
Knapp Activity Center Outdoor Expansion	\$421,217	\$-	\$-	\$-									✓
Clear Creek Trail (Barry Rose WRF to UHCL)	\$10,470,000	\$500,000	\$500,000	\$2,465,872	✓			✓					✓
Shadow Creek Trail Phase II - Along Clear Creek Relief Ditch & Library Trail	\$1,575,000	\$1,575,000	\$-	\$-	✓				✓				
Clear Creek Trail Segment 5.2 (Pearland Parkway to Yost Blvd)*	\$2,633,000		\$166,500	\$1,150,000									
Clear Creek Trail Segment 5.3 (Yost Blvd to Creekridge Dr)*	\$810,000		\$55,000	\$350,000									
Clear Creek Trail Segment 5.4 (Creekridge Dr to Dixie Farm Road)*	\$743,000		\$51,500	\$320,000									
Mykawa Road Widening - BW8 to FM 518	\$19,764,303	\$8,168,723	\$9,350,539	\$9,350,539	✓		✓	✓				✓	✓
McHard Road Extension (Mykawa Road to Cullen Parkway)	\$47,847,000	\$15,053,128	\$-	\$-	✓		✓	✓				✓	✓
Smith Ranch Road Extension (CR 94) - Hughes Ranch Road to Broadway	\$10,528,000	\$2,214,728	\$3,998,385	\$-	✓		✓	✓				✓	✓
Safe Routes to School Improvements	\$3,762,000	\$773,400	\$-	\$-	✓			✓				✓	✓
Shadow Creek Parkway Landscaping, Street Lighting & Sidewalks	\$7,970,000	\$7,970,000	\$-	\$-	✓				✓				
Broadway Expansion - SH 288 to Old Chocolate Bayou	\$1,000,000	\$-	\$-	\$-									✓
Clear Creek Bridge Replacement	\$500,000	\$-	\$-	\$-	✓			✓					✓
Intersection Improvements in Shadow Creek Ranch	\$10,394,000	\$1,000,000	\$9,394,000	\$-	✓				✓				

* Project submitted to Harris County Pct. 2 for matching funds – Pending project selection by Pct. 2



Capital Improvement Program (FY22-FY23)

Priority 2: These projects are new/repair/replacement of critical infrastructure

General Government (Non-Enterprise Fund)

Project	Total Project Budget	Debt Thru FY22	Proposed FY23 Debt Issuance - Impacts FY24 DS Rate (0.4300)	Future Debt (FY24+)	Project in Progress	Tied to Another Project	Voter Approved (GO)	AFA/TIP Commitment	TIRZ	GLO Grant (100% Grant Funds)	Interlocal	Certificates of Obligation	Cash/Other Funding
Willowcrest Subdivision Drainage Improvements	\$14,960,000	\$14,960,000	\$-	\$-	✓		✓						
West Lea Subdivision Drainage Improvements	\$7,427,406	\$6,542,000	\$-	\$-	✓		✓				✓		✓
Hickory Slough Regional Detention Pond	\$4,625,000	\$-	\$3,000,000	\$-	✓	✓	✓				✓	✓	✓
Hickory Slough Sportsplex Detention Pond Ph 2	\$4,239,000	\$-	\$499,000	\$3,740,000			✓						
Hickory Slough Detention Storm Water Pump Station Generator	\$900,000	\$-	\$180,000	\$900,000								✓	
Orange Street Service Center Phase 2	\$28,375,000	\$175,000	\$8,668,000	\$-	✓	✓						✓	✓
Public Safety Training & Education Building	\$3,850,000	\$3,850,000	\$-	\$-	✓	✓						✓	
Public Safety Building Renovations	\$1,135,000	\$1,135,000	\$-	\$-	✓	✓						✓	
Hillhouse Road Annex Phase II	\$11,728,000	\$1,251,750	\$7,544,250	\$-		✓						✓	
Natorium Air Handling Replacement	\$5,198,000	\$305,000	\$4,893,000	\$-	✓								
Natorium Recapitalization Project	\$2,070,000		\$2,070,000										
Recreation Center Boiler Replacement	\$608,000	\$-	\$608,000	\$-								✓	
PSB Detainment Area Plumbing Replacement	\$648,000	\$-	\$648,000	\$-								✓	
Woodcreek Park Bridge	\$455,000	\$-	\$-	\$-	✓								✓
Mobility & Thoroughfare Plan Update	\$600,000	\$-	\$-	\$-				✓					✓
Traffic Signal Upgrades Program FY21	\$505,444	\$-	\$-	\$-	✓								✓
Traffic Signal Upgrades	\$2,145,000	\$-	\$-	\$-									✓
Dixie Farm Road Transition near Mary's Creek and Cowart's Creek Bridge	\$540,000	\$70,000	\$470,000	\$-								✓	
Pearland Parkway at Barry Rose Intersection Improvements	\$1,455,000			\$-								✓	
Street Reconstruction - Sherwood	\$5,380,000	\$-	\$930,000	\$4,450,000			✓						
PER for Future Bond Referendum - Drainage	\$655,000	\$-	\$-	\$-	✓								✓



Capital Improvement Program (FY22-FY23)

Priority 3: These projects could be postponed with moderate inconvenience

General Government (Non-Enterprise Fund)

Project	Total Project Budget	Debt Thru FY22	Proposed FY23 Debt Issuance - Impacts FY24 DS Rate (0.4300)	Future Debt (FY24+)	Project in Progress	Tied to Another Project	Voter Approved (GO)	AFA/TIP Commitment	TIRZ	GLO Grant (100% Grant Funds)	Interlocal	Certificates of Obligation	Cash/Other Funding
Fire Station #7	\$13,393,000	\$1,485,000	\$-	\$11,908,000								✓	
Fire Station #11	\$13,420,000	\$-	\$500,000	\$12,920,000								✓	
Train Depot Office Conversion	\$586,000	\$-	\$-	\$-									✓
Fiber Backbone (Cullen Parkway from Magnolia to Hughes Ranch Rd)	\$632,000	\$-	\$-	\$-	✓								✓
Fiber Backbone (Magnolia from Cullen to Business Center)	\$705,000	\$-	\$-	\$-									✓
Park Equipment Recapitalization Program FY22	\$500,000	\$500,000	\$-	\$-	✓		✓						
Park Equipment Recapitalization Program FY23	\$500,000	\$-	\$500,000	\$-			✓						
Bailey Road Expansion - Veterans Dr to Main	\$14,591,000	\$2,685,000	\$8,929,500	\$2,976,500	✓		✓						
Pearland Parkway at Broadway Intersection Improvements	\$2,023,000	\$-	\$-	\$1,273,000								✓	✓
Road Network Condition Assessment	\$365,000	\$-	\$-	\$-									✓
PER for Future Bond Referendum	\$450,000	\$-	\$-	\$-								✓	
City Hall Stand-By Power Redundancy for Critical Facility	\$1,155,000	\$-	\$-	\$1,155,000									
Fire Administration Stand-By Power Redundancy for Critical Facility	\$660,000	\$-	\$-	\$-									
PER for Future Bond Referendum	\$250,000	\$-	\$-	\$-								✓	
PER for Future Bond Referendum	\$500,000	\$-	\$500,000	\$-								✓	

Capital Improvement Program (FY22-FY23)

Priority 4: These projects could be postponed with no major repercussions



General Government (Non-Enterprise Fund)

Project	Total Project Budget	Debt Thru FY22	Proposed FY23 Debt Issuance - Impacts FY24 DS Rate (0.4300)	Future Debt (FY24+)	Project in Progress	Tied to Another Project	Voter Approved (GO)	AFA/TIP Commitment	TIRZ	GLO Grant (100% Grant Funds)	Interlocal	Certificates of Obligation	Cash/Other Funding
Median Landscaping on Kingsley & Kirby	\$500,000	\$-	\$-	\$-									✓
Reflection Bay WRF Fuel Island	\$725,000	\$-	\$319,000										✓



Totals by Criticality Ranking

- Priority 1 = \$23,515,924 in FY23 Debt Issuances
- Priority 2 = \$29,510,250 in FY23 Debt Issuances
- Priority 3 = \$10,429,500 in FY23 Debt Issuances
- Priority 4 = \$319,000 in FY23 Debt Issuances
- Total = \$63,774,674

Priority 1: These projects are tied to outside funding obligations

Priority 2: These projects are new/repair/replacement of critical infrastructure

Priority 3: These projects could be postponed with moderate inconvenience

Priority 4: These projects could be postponed with no major repercussions

General Fund Operation & Maintenance Impacts



- Each project has an Operations and/or Maintenance component associated with the project
- For the projects identified in FY23, O&M the budget requirement is \$307,199.
- For FY24, O&M cost are estimated at \$535,704.



Tax Backed Debt Discussion

- Discussion and direction on FY23-27 CIP tax-backed projects



Section 2

Water & Sewer Revenue Supported Issuances



Background

- The City is legally required to generate enough Water & Sewer (W&S) revenue to pay debt service obligations
- In FY21, the City created a separate W&S Debt Service Fund
- In FY22, Council increased Water and Sewer rates by 5%
- The debt service payment amount (\$27M) for upcoming FY 23 is already fixed

Water & Sewer CIP Background



- All projects in this CIP funded by W&S revenue are needed to ensure a safe and reliable system with adequate capacity to serve customers.
- This CIP contains \$83.32 million in ongoing projects and planned debt to be sold in FY23. Among this, \$13.76 million will be paid back using impact fees

Enterprise Revenue Backed Projects



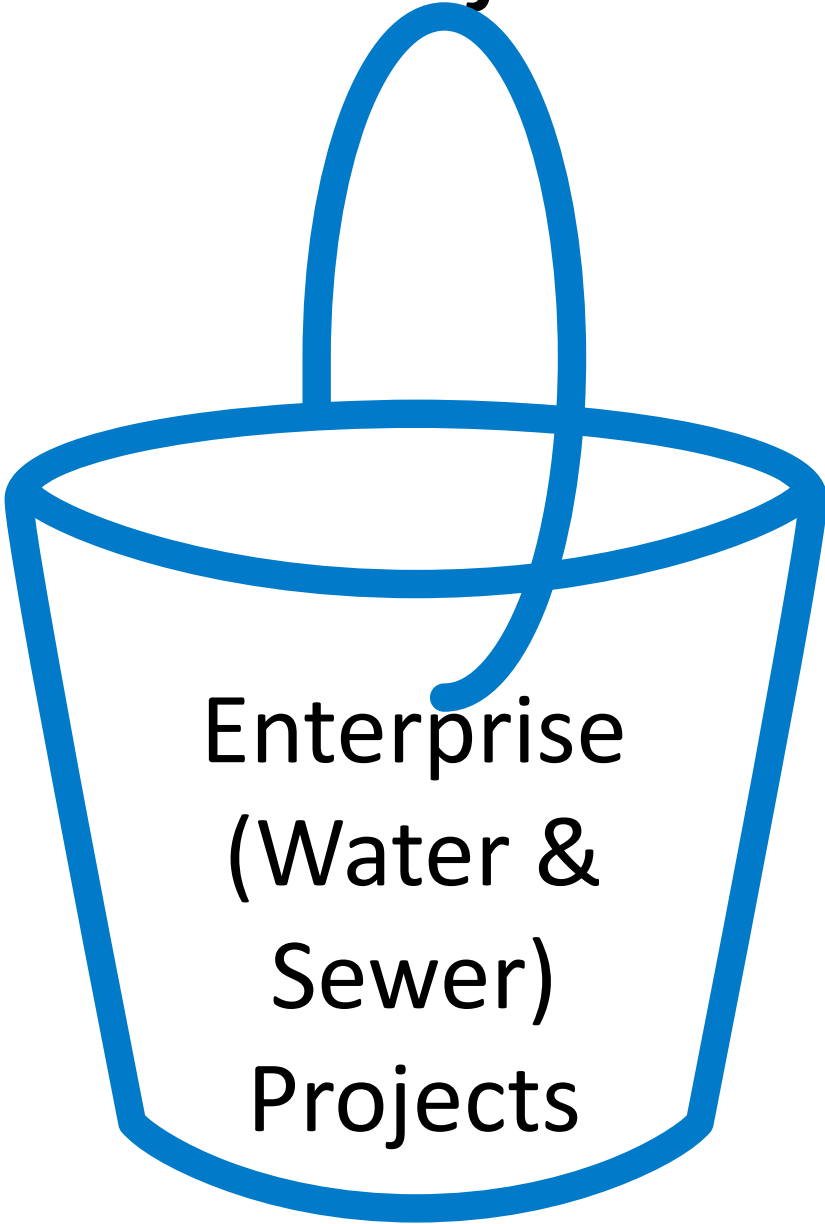
Current Debt Obligations



Future Debt Obligations



Funding Impacts

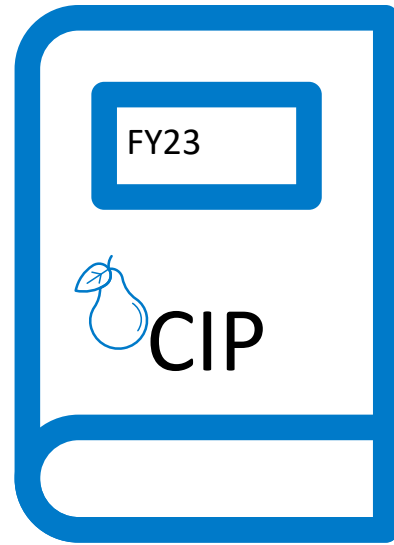


Enterprise (Water & Sewer) Projects

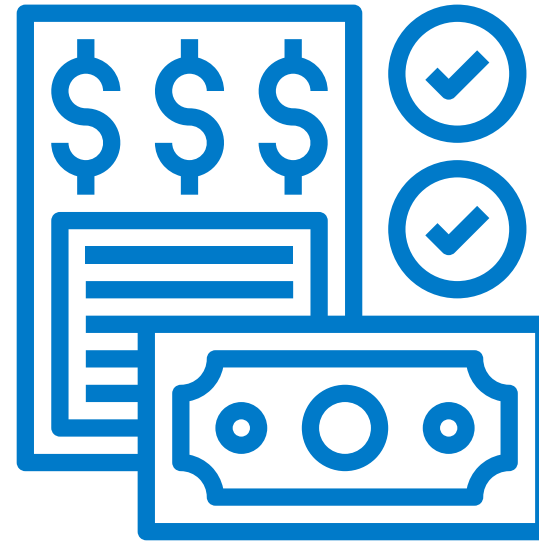
CIP Funding



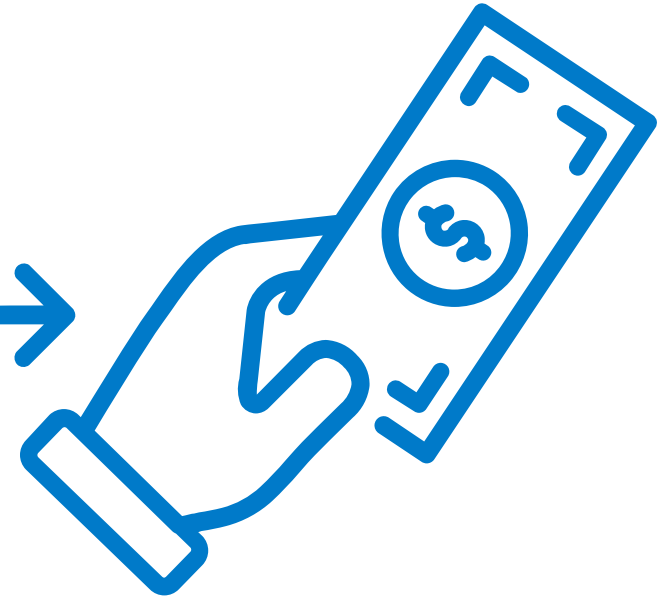
Current Debt
Obligation



FY23 CIP



Sell Debt
for FY23
CIP
Projects



Debt
Payments
Begin in
FY24

CIP Funding



Debt
Payments



Paid for by
User Fees &
Impact Fees

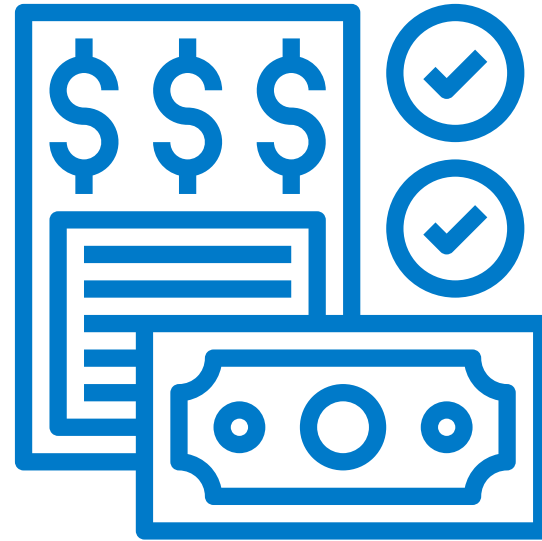


Major Driver
of Water &
Sewer Rates

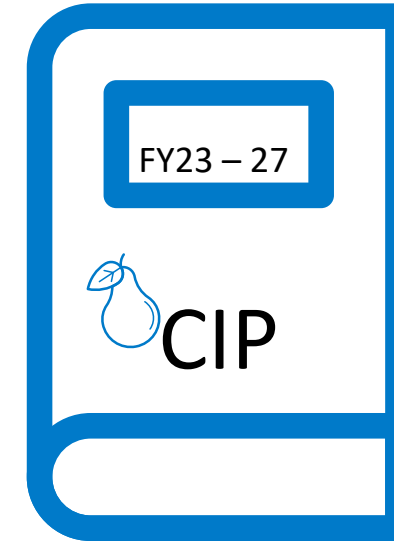
Council Lever for FY24 Water/Sewer Rates



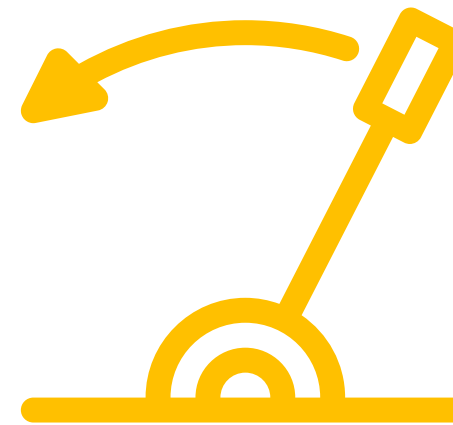
Current
Debt
Obligations



FY22 CIP Debt Sale



FY23 CIP



Increasing/Decreasing
the FY23 debt issuance
will impact the water
and sewer rate in **FY24**



Early Rate Model



New Rate Model for FY23

- Investments made in the Finance Department have provided the capacity to build a custom rate model in-house.
- New rate model is more transparent and easier to understand.
- An improvement for this year is that Council and Public can see rate estimates at the same time as CIP presentation.
 - Normally rate estimates come after Council discussed the CIP
 - Provides much more nuanced discussion on relationship between utility rates and CIP
- Model validated against prior model predictions, and backcasted against FY21 actuals.
- Weather will always create variance between rate model and actual revenues.
- The Rate Model forecasts the necessary utility rate changes to require the least financial burden on Citizens while achieving the level of services that the citizen and Council expect.



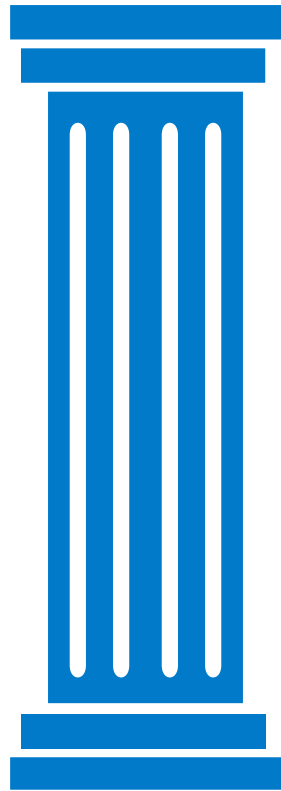
Model Revenue Forecast Components

Two Components of the Revenue Forecast

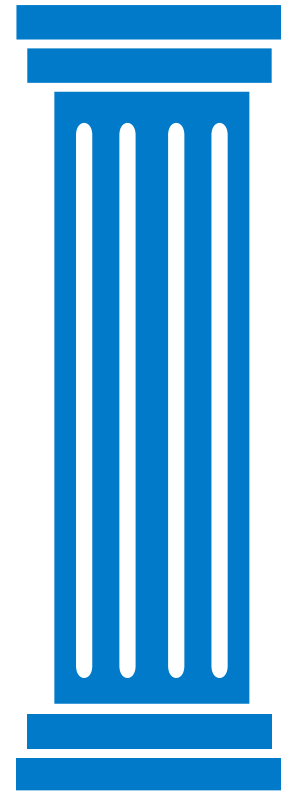
- **Water and Sewer Base Charges:** Base Charge revenue is based on numbers of meters and size of meters (5/8", 1', 2', etc.). Staff forecast the increase in number of meter based on historical growth.
- **Water and Sewer Volumetric Charges:** Volumetric revenue is based on Water and Sewer Usage (Consumption), Current Tier Structure, and Meter Types (Residential, Commercial, and Irrigation). Staff forecast water and sewer usage based on a 3-year average.



Three Key Metrics that Determine The Minimum Utility Rate Increase



Enterprise Fund
Operating Reserve
(25%)
City Policy



Bond Coverage Ratio
(1.4X or 1.15X)
Bond Covenant
Requirement



Restricted For Debt
Service (20%)
Bond Covenant
Requirement



City Policy: Enterprise Operating Reserve

- According to the adopted Financial Policy, *"The City shall maintain a working capital sufficient to provide for reserves for emergencies and revenue shortfalls. A cash equivalent operating reserve will be established and maintained at 25% of the current year's budget appropriation for recurring operating expenses."*
 - The 25% in Enterprise Fund Operating Reserves is held in the Enterprise Operations Fund (Fund #600)
- A separate reserve exists for revenue bond's debt service. The two reserves cannot be double counted for metric purposes.
 - The Debt Service Reserve is held in the Enterprise Debt Service Fund (Fund #601)

General Fund vs Enterprise System Reserves



The Enterprise Fund may be overly risk-averse (policy and covenants) with fund balances that could otherwise be usable for operations. A policy change reducing the operating reserve for the Enterprise Operating Fund should be considered.

General Fund:

- Reserve is held in Fund 100
- Reserve **Policy** = 25%
 - Annual Debt service requirements are built into this reserve
- City's Taxpayer Debt Fund (Fund 200) **does not have a separate debt reserve**

Enterprise Funds:

- Reserve is held in Funds 600 (Operating) & 601 (Debt)
- Operating Fund has reserve **Policy** of 25%
- Debt Fund has reserve of 20% *just for W/S Revenue Bond debt.*
 - Set by Bond Covenants
 - Can never be used for operations

Bond Coverage Ratio Requirement



- Enterprise Fund Revenue must be able to satisfy the following condition remain in compliance with W/S Revenue Bond Ordinances ([Ord. 1600](#)) and the adopted [Financial Policy](#)
- If the City wants to issues Water and Sewer Revenue Bonds:
 - The City must have a bond coverage ratio of **1.4X**.

$$\text{Bond Coverage Ratio} = \frac{(\text{Revenue} - \text{Operating Expenses})}{\text{Current Debt Service} + \text{Proposed Next FY Bond Sale Debt Service}}$$

- **Requires a debt service reserve of 20%**, which must stay in the Enterprise Debt Fund until the bond is retired. This reserve does not count towards the operational reserve requirement of 25%.
- If the City wants to issues Enterprise COs :
 - The City must meet a **1.15X** Bond Coverage Ratio
 - **Issuance of CO's does not require a debt reserve outside of normal operating reserve (much smaller)**



Enterprise Debt Reserve

- Requires a debt service reserve of 20% which must stay in the Enterprise Debt Fund until the bond is retired.



To keep the rate increase to around 12.5% In FY23 Pearland will need to do the following:

- Issue CO's instead of W/S Revenue Bonds
- Draw down Enterprise Operations Fund balance to minimum policy 25%
- Switch some currently cash-funded projects to COs



Reducing Utility Rate Increases for FY23

Recommendation #1: Issue CO's instead of Revenue Bonds

- **Problem it Solves:**
 - For every **\$10M** in Revenue Bonds sold, \$400K must be put into the Enterprise Debt Fund annually as reserve until **\$2M** is reached. Funds cannot be used for anything else. CO's don't have this requirement
 - Interest Rate for CO's is 0.25% - 0.5% lower than Revenue Bonds. Ex: for every **\$10M** in CO's issued instead of Revenue Bonds, the City is saving \$50,000 annually.
 - Revenue Bonds require 1.4X Bond Coverage Ratio. CO's only require 1.15X
- **Effect:** Directly lower the need for revenue increase by **~3.5%** in FY23 and **~2.5%** in FY24.
- **Advantage:** Much lower debt reserve. Lower interest rate. Requires Council approval and public notice.
- **Disadvantage:** Per the City's Financial Advisor, with clear disclosure and communication, it is unlikely that replacing W/S Bond with CO's will have a negative impact on bond rating.



Reducing Utility Rate Increases for FY23

Recommendation #2: Switch Cash Funding to CO's

- **Problem it Solves:** The Enterprise Fund no longer has funding available to cash-fund projects
- **Why:** EF Reserve has been decreasing over-time to it's target level of 25%. Funding projects using cash will reduce this balance further, requiring extra rate increases to maintain 25% operating reserves.
- **Effect:** Using \$5M for cash funded projects in FY23 would require a 10% rate increase. Issuing \$5M in revenue bonds for eligible projects reduces necessary rate increase from 10% to 1% .
- **Advantage:** Distribute debt payments across a 20-year period, aligning the finance term with the lifespan of the asset. Provides room for long-term rate strategy.
- **Disadvantage:** Borrowing \$5 million at 3% APR = \$150,000 in annual interest costs (20 years*150,000 = \$1.8M). Additionally, taking on more debt *may* negatively affect the City's credit rating.



Relevant Financial Policies

[Financial Policies – Page 8](#)

B. Water/Sewer Unreserved Working Capital

The City shall maintain a working capital sufficient to provide for reserves for emergencies and revenue shortfalls. A cash equivalent operating reserve will be established and maintained at 3 months (25%) of the current year's budget appropriation for total operating expenses.

The cash operating reserve is derived by dividing the total cash equivalents balance by total operating expenses.

C. Use of Fund Balance/Working Capital

Fund balance/Working Capital shall only be used for emergencies, non-recurring expenditures/expenses or major capital purchases that cannot be accommodated through current year savings. Should such use reduce balances below the level established as the objective for that fund, restoration recommendations will accompany the request/decision to utilize said balances.

Rate Model Early Preview



City of Pearland

Water and Wastewater Rate Model

What is the required Rate Change to keep up with infrastructure and operation?

	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	
Required Revenue Rate Change	0%	5.0%	12.5%	29.0%	23.0%	1.0%	9.5%	
Total Revenue	49,163,187	52,443,287	59,665,732	76,610,161	94,463,482	96,229,585	105,857,513	
Operating Expenses - Fund 600	26,295,531	33,176,504	36,056,537	38,917,579	39,904,712	42,181,670	43,736,730	
Non-operating Expenses - Fund 600	16,293,748	10,766,306	3,928,731	6,073,817	6,472,758	6,883,896	10,054,591	
Debt Service Expenses Net of Impact fee - Fund 601	18,197,255	20,112,720	25,581,007	32,287,916	45,608,593	47,926,841	51,242,823	
Total Expenses	60,786,534	64,055,530	65,566,274	77,279,312	91,986,062	96,992,407	105,034,144	
REV OVER(UNDER) EXP	(11,623,347)	(11,612,243)	(5,900,542)	(669,151)	2,477,420	(762,822)	823,369	
Beginning Cash Equivalents Net of Restricted for Debt Service	28,732,998	20,956,644	15,936,019	10,035,477	9,366,326	11,843,746	11,080,925	
Ending Cash Equivalents Net of Restricted for Debt Service	20,956,644	15,936,019	10,035,477	9,366,326	11,843,746	11,080,925	11,904,293	
New Debt Issuance	85,370,000	49,521,515	83,324,710	142,129,250	49,608,000	44,161,000	63,463,000	
Bond Ordinance Financial Policy	Bond Coverage - 1.15 required to issue COs Restricted for Debt Service	1.73	1.58	1.92	2.90	4.10	4.20	4.75
		13,087,664	15,766,567	15,766,567	15,766,567	15,766,567	15,766,567	15,766,567
	Water/Sewer Unreserved Working Capital 25%	80%	48%	25%	20%	22%	23%	25%



Reducing Future Utility Rate Increases for FY24+

Option #1: Utilize O&M Reserves as Part of Multi-Year Plan

- **Problem it Solves:** Utility Rates will need to increase 12.5% to maintain 25% reserves, as outlined in Section V.B of the [City's Financial Policies](#) (page 8)
- **Why:** The Enterprise Fund reserve has been decreasing over-time to its target level of 25%. Using O&M reserves to smooth rate increases over multiple years will help to limit the size of the increase each year.
- **Effect:** Enterprise Operation Fund reserves decrease below the 25% policy
- **Advantage:** Provides time for Pearland to be more strategic and proactive with utility rates
- **Disadvantage:** Pearland would not meet its *current* reserve requirement until rates had been raised sufficiently to replenish reserves. Requires commitment to raising utility rates in each of the next several years. Diminished reserves place additional risk on the City's Enterprise Operation should revenues have a significant shortfall.

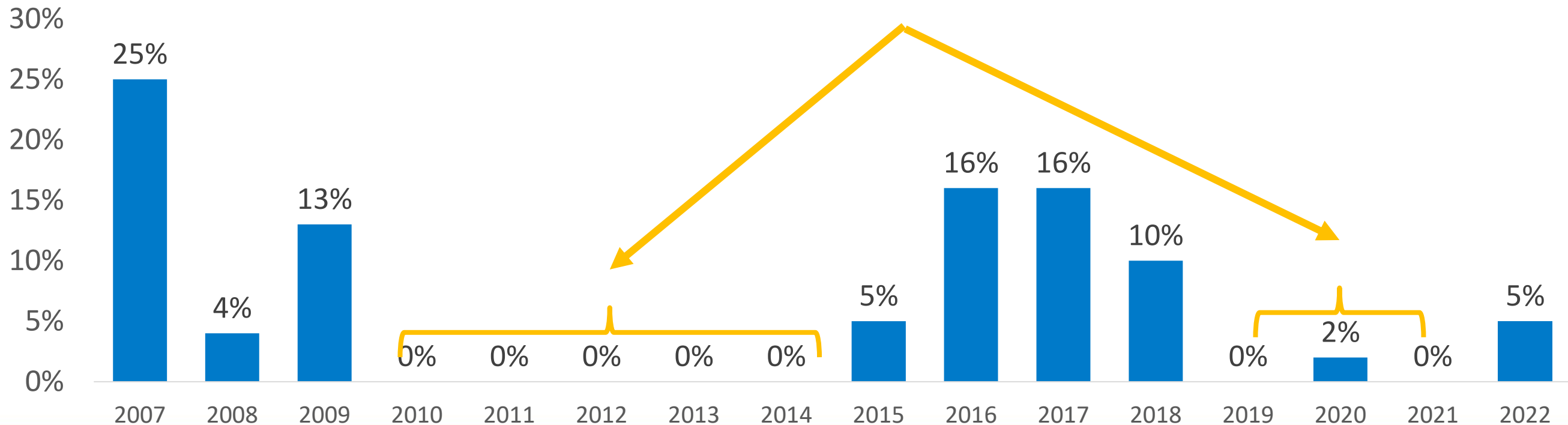


Reducing Future Utility Rate Volatility

Option #2: Adopt a minimum inflation increase each year

- Problem it Solves:** In the past, Pearland has had multiple periods of 0% rate increases. This causes the system to require sudden spikes in utility rates when costs increase. An item that costs \$1 in 2009 would cost \$1.10 in 2014, but rates were kept the same in this period - resulting in the Enterprise Fund losing 10% of its purchasing power for each gallon of water/sewer sold.

Historical Pearland Utility Rate Increases





Enterprise Projects



Capital Improvement Program (FY22-FY23)

Priority 1: Projects are tied to outside funding obligations

Enterprise Fund

Project	Total Project Budget	Debt Thru FY22	Proposed FY23 Debt Issuance - Impacts Water/Sewer FY24	Future Debt (FY24+)	Project in Progress	Tied to Another Project	TWDB	Revenue Bonds	W/S Certificates of Obligation	Impact Fees Debt/Cash	Cash/Other Funding
Barry Rose WRF Replacement and Expansion	\$131,260,000	\$14,546,791	\$22,280,000	\$93,220,000	✓	✓		✓	✓	✓	✓
JHEC WRF Expansion	\$80,593,236	\$80,131,000	\$-	\$-	✓		✓	✓		✓	✓
Longwood Water Reclamation Facility Decommissioning	\$26,796,000	\$1,545,000	\$2,000,000	\$23,251,000	✓	✓	✓		✓		
SCADA - Waste Water	\$4,800,000	\$-	\$2,800,000	\$-	✓	✓					✓
FM 518 Utility Relocations - SH288 to Old Chocolate Bayou	\$6,800,000	\$-	\$850,000	\$5,950,000		✓			✓		✓
Surface Water Plant Phase 1 (10MGD)	\$175,500,000	\$170,255,000	\$5,245,000	\$-	✓	✓		✓	✓	✓	
FM 1128 Water Line - Bailey to CR 100	\$100,000	\$-	\$-	\$-	✓	✓					✓
CR 100 Water Line - Harkey to FM 1128	\$360,000	\$-	\$-	\$-	✓	✓					✓
FM 518 Utility Relocations - SH288 to Old Chocolate Bayou	\$7,140,000	\$-	\$790,000	\$6,250,000	✓	✓			✓		
SCADA - Water	\$2,850,000	\$-	\$-	\$-	✓	✓					✓

Capital Improvement Program (FY22-FY23)

Priority 2: Projects are new/repair/replacement of critical infrastructure



Enterprise Fund

Project	Total Project Budget	Debt Thru FY22	Proposed FY23 Debt Issuance - Impacts Water/Sewer FY24	Future Debt (FY24+)	Project in Progress	Tied to Another Project	TWDB	Revenue Bonds	W/S Certificates of Obligation	Impact Fees Debt/Cash	Cash/Other Funding
Water Operations Building (Alice St.)	\$1,849,000	\$1,849,000	\$-	\$-	✓			✓	✓		
Orange Street Service Center Phase 2	\$28,375,000	\$1,000,000	\$16,097,710	\$-	✓				✓		✓
Hillhouse Road Annex Phase II	\$11,728,000	\$486,750	\$1,712,000	\$733,250	✓			✓	✓		
Willowcrest Subdivision Sanitary Sewer	\$1,636,000	\$1,300,000	\$-	\$-	✓	✓		✓	✓		✓
Mykawa Road Sewer Relocation - Jasmine to S Orange Circle	\$378,000	\$-	\$-	\$-							✓
Bailey Sewer Line - Veterans to Bailey Water Plant	\$1,542,000	\$1,512,000	\$-	\$-	✓	✓		✓	✓		✓
Bella Vita Regional Lift Station Rehabilitation	\$1,184,000	\$164,000	\$1,020,000	\$-				✓	✓		
Sanitary Sewer Rehabilitation - Barry Rose Service Area (BR-03)	\$4,000,000	\$250,000	\$3,750,000	\$-					✓		✓
Autumn Lakes Lift Station Rehabilitation	\$759,000	\$102,000	\$657,000	\$-				✓	✓		
Sunrise Lakes Lift Station Rehabilitation	\$774,000	\$104,000	\$670,000	\$-				✓	✓		
Sanitary Sewer Rehabilitation - Barry Rose Service Area (BR-04)	\$4,000,000	\$-	\$4,000,000	\$-				✓	✓		
Veterans 2 Regional Lift Station Capacity Expansion & Rehabilitation	\$4,424,000	\$-	\$548,000	\$3,876,000				✓	✓		
Dixie Farm North Regional Lift Station Rehabilitation	\$1,912,000	\$-	\$1,912,000	\$-				✓	✓		
Riverstone Ranch Regional Lift Station Capacity Expansion	\$1,290,000	\$-	\$1,290,000	\$-				✓	✓		

Capital Improvement Program (FY22-FY23)

Priority 2: Projects are new/repair/replacement of critical infrastructure



Enterprise Fund

Project	Total Project Budget	Debt Thru FY22	Proposed FY23 Debt Issuance - Impacts Water/Sewer FY24	Future Debt (FY24+)	Project in Progress	Tied to Another Project	TWDB	Revenue Bonds	W/S Certificates of Obligation	Impact Fees Debt/Cash	Cash/Other Funding
Bailey Water Plant Improvements	\$14,440,000	\$14,440,000	\$-	\$-	✓	✓		✓	✓		
Green Tee Transite Pipe Water Line Replacement	\$4,800,000	\$450,000	\$4,350,000	\$-				✓	✓		
Somersetshire Estates Subdivision Waterline Replacement	\$926,000	\$120,000	\$806,000	\$-				✓	✓		
Cullen Elevated Storage Tank Rehabilitation	\$825,000	\$-	\$-	\$-							✓
Liberty Water Production Facility Rehabilitation	\$2,020,000	\$-	\$120,000	\$1,900,000				✓			✓
Southeast (Bailey) Elevated and Magnolia Ground Storage Tank Rehabilitation	\$1,950,000	\$-	\$1,950,000	\$-				✓	✓		
West Oaks and West Oaks Village Water Quality Program	\$1,850,000	\$-	\$250,000	\$1,600,000					✓		✓
Sherwood Waterline Replacement	\$1,750,000	\$-	\$250,000	\$1,500,000		✓		✓	✓		✓
Barry Rose Gravity Sewer - Plum from Galveston to Barry Rose WRF	\$10,476,000	\$-	\$1,416,000	\$9,060,000				✓	✓		
Magnolia Parkway Water Line Looping - Kirby Drive to Granite Trace Lane	\$70,000	\$-	\$-	\$-	✓	✓					✓
Country Place Water Well Generator Replacement	\$660,000	\$-	\$-	\$-							✓
Garden Water Well Generator	\$400,000	\$-	\$-	\$-							✓



Capital Improvement Program (FY22-FY23)

Priority 3: Projects could be postponed with moderate inconvenience

Enterprise Fund

Project	Total Project Budget	Debt Thru FY22	Proposed FY23 Debt Issuance - Impacts Water/Sewer FY24	Future Debt (FY24+)	Project in Progress	Tied to Another Project	TWDB	Revenue Bonds	W/S Certificates of Obligation	Impact Fees Debt/Cash	Cash/Other Funding
Sanitary Sewer Rehabilitation - Old Town District & Barry Rose Service Area	\$4,165,000	\$415,000	\$3,750,000	\$-	✓			✓	✓		
East & West Barnett Lift Stations Rehabilitation	\$1,721,000	\$1,360,000	\$-	\$-	✓			✓	✓		✓
Centennial Water Park Lift Station	\$410,000	\$-	\$410,000	\$-				✓	✓		
Westminister Subdivision Water Line Replacement	\$1,350,000	\$170,000	\$1,180,000	\$-				✓	✓		
McLean Water Production Facility Rehabilitation	\$1,870,000	\$-	\$1,700,000	\$-				✓	✓		✓

Capital Improvement Program (FY22-FY23)



Priority 4: Projects could be postponed with no repercussions

Enterprise Fund

Project	Total Project Budget	Debt Thru FY22	Proposed FY23 Debt Issuance - Impacts Water/Sewer FY24	Future Debt (FY24+)	Project in Progress	Tied to Another Project	TWDB	Revenue Bonds	W/S Certificates of Obligation	Impact Fees Debt/Cash	Cash/Other Funding
Cullen Gravity Trunk Sewer - Hughes Ranch Rd to McHard Rd	\$5,718,000	\$-	\$878,000	\$4,840,000				✓	✓		
Reflection Bay WRF Fuel Island	\$725,000		\$319,000								✓



Totals by Criticality Ranking

- Priority 1 = \$33,965,000 in FY23 Debt Issuances
- Priority 2 = \$40,798,710 in FY23 Debt Issuances
- Priority 3 = \$7,040,000 in FY23 Debt Issuances
- Priority 4 = \$1,197,000 in FY23 Debt Issuances
- Total = \$83,000,710

Priority 1: These projects are tied to outside funding obligations

Priority 2: These projects are new/repair/replacement of critical infrastructure

Priority 3: These projects could be postponed with moderate inconvenience

Priority 4: These projects could be postponed with no major repercussions

Operation & Maintenance Impacts



- Each project has an Operations and/or Maintenance component associated with the project.
- For Enterprise projects completed in FY22, the additional O&M budget requirement in FY23 is \$1,385,748
- For Enterprise projects completed in FY23, the additional O&M budget requirement in FY24 is \$3,392,501



Water & Sewer Discussion

Key decision point

- Discussion on projects for FY23
- Guidance on presented Utility Rate options

Capital Improvement Program



Consideration of Capital Improvement Plan

- Regular City Council Meeting: June 13, 2022



Questions



Section 3

Surface Water Plant Update

Project History

Budget Status

Construction Status

Schedule Status



Abbreviated Project History

- Feb. 2016: City submits Application for Project SWIFT funding eligibility
- Mar. 2016 Owner's Representative selected & contracted
- May 2016 funding applications submitted to TWDB
- Nov. 2016 TWDB approved application for \$159,000,000
- Feb. 2017 Design Teams were selected and put under contract
- Apr. 2019 PLW Waterworks selected as CMAR Pre-Construction for \$1,092,320
- Feb. 2020 PLW Awarded Early Works Package #1 for Site Work for \$7,479,256
- Apr. 2020 PLW Awarded Early Works Package #2 for Deep Structures for \$13,758,502
- Sept. 2020 PLW presents GMP and is awarded Balance of Project contract for \$113,667,603



Project Budget Update

- Funding Sources (TWDB)
 - Water & Sewer Revenue Bonds 2017B, 2018A, 2019A 2020A - \$74,637,500
 - Impact Fee 2017B, 2018A, 2019A, 2020A - \$74,637,500
 - Water & Sewer Certificates of Obligation 2022 (TBS) - \$10,490,000
 - Impact Fee 2022 Debt - \$10,490,000
 - Water & Sewer Certificates of Obligation 2023 (TBS)-\$2,622,500
 - Impact Fee 2023 Debt-\$2,622,500
 - » **Total Funding \$175,500,000**
- Encumbrances to Date + Planned Future Expenses
 - Engineering Design - \$25,411,061
 - Construction - \$137,646,231 (includes CO #8)
 - CM & Testing - \$4,563,334
 - Land - \$173,394
 - FFE - \$1,500,000
 - » **Total Encumbrances + Planned Future Expenses \$169,294,020**
- Project Contingency is \$6,205,980 (3.5% of project's total funding)



Project Completion Status

- As of the February Construction pay estimate
 - \$81,078,000 out of \$135,997,681 = 60% complete by payments
- Computed by Time spent since January 30, 2019
 - 1,143 days out of a total of 1,521 days or 75.1%
 - Days are from CMAR Pre-construction Services start until water in the system
- Days Remaining in Original Contract Time = 378 (24.9%)



Recent Progress








Over the past 45 days the following work has been completed or in progress.

- Canal Bank near side complete
- Raw Water Pump Station
 - Pumps and Risers installed
 - Climber screens installed
- De-Water Bldg.
 - Belt Presses & polymer tanks installed
 - Pre-engineered bldg.
- Membrane Bldg.
 - Pre-cast wall
 - Roof framing
 - Working equipment pads and chemical storage
- Transmission lines
 - Segments 2, 3 & 4 installed & 50% restoration
 - Working revised west end configuration
 - Fiber 90%
- Operations Building
 - Metal stud framing complete
 - HVAC
 - Roof deck & membrane
- Maintenance Building
 - Pre-cast exterior walls complete
 - Metal roof
- Admin-HSP Building
 - Pre-cast walls complete
 - Roof decking
 - Concrete Floor in Admin
 - Concrete floor in Pump Room
- Chlorine Building
 - pre-cast wall panels complete



Look Ahead and Schedule Impacts

Next 45 days

- Raw Water Intake 
 - Remove By-Pass berm
 - Complete water piping
 - De Watering
 - Complete PEMBldg
 - Install solids conveyors & begin piping
 - Membrane Bldg.
 - Complete CMU & paint
 - Installation of roof decking
 - Begin MEP 
 - Admin & HSP Bldg.
 - Install temp roof
 - Begin interior build-out 
 - Operations Bldg.
 - Roof doors & windows
 - Pre-Treatment 
 - Transmission Lines
 - Broadway and CR48 pavement restoration completion
 - Fiber duct installation
 - Begin fiber pulls
 - Install 8" FM under canal
 - Chlorine & Dioxide Bldg.
 - Install structural steel
 - Install canopy & roof
 - Main Electrical
 - Waiting for Switch Gear 
-  Delayed by equipment delivery
-  Agreed to temp roof install/removal



Completion Schedule

Water in the Distribution System

- Original Water in the Distribution System date is March 2023
- Material Market Volatility
- Schedule now fluid, changing by the week
 - Deliveries driving delays and Work-Arounds are driving minor recoveries
- As of March 1, 2022 Water in the Distribution System date is estimated to be June 2023
 - Again, schedule is fluid and changes are happening every day
- Current Estimated Overrun = 90 Days (5.9% of Total Project Days)



Implications of Supply Chain Issues

- Only significant negative implication is the delayed completion of the project
 - CMAR's only remedy for no-fault delays is contract time
- Project expected to be completed within existing budget
- No contract-altering scope changes have been made
- No new funding is being requested
- No additional time has been requested to date

Picture updates





Questions