





Wastewater

- \$27,250,00
- Maintenance
- Lift Station/Line Work
- Treatment
 - Expansion
 - Maintenance





Wastewater Maintenance

- EARZ
 - \$2MM
 - Ongoing program repairing damaged sewer line
 - Slip lining, pipe bursting, manhole repair/coating
 - TCEQ mandate to protect aquifer
- Lift Station Upgrades
 - \$550k
 - Capital Maintenance as needed for existing lift station

Wastewater

Lift Station/Linework

- Wolf Ranch Lift Station
 - \$1.7MM (FY22 – Design/Easements)
 - \$4.2MM (FY23 – Construction)
 - Expansion of existing lift station serving SH29/FM2243 corridor
 - Expanded lift station and force main capacity
 - Pump north to Interceptor LS location (future gravity line)
- Interceptor Lift Station Decommission
 - \$2.5MM (FY22 – Design/Easements)
 - \$6.0MM (FY23 – Construction)
 - Removal of existing lift station
 - Gravity replacement
 - Located east of I35, at Middle Fork of SG River
 - Just upstream of Blue Hole.
 - Wolf Ranch LS expansion discharge point.

Wastewater Treatment Plants

- Cimarron Hills Expansion
 - \$4.5MM Construction
 - Design Underway
 - Developer Financial Obligation
 - Oaks at San Gabriel
 - 0.46mgd full capacity



Wastewater Treatment Plants

- Pecan Branch WWTP Expansion
 - \$5MM FY22 (Design/Permitting)
 - 3mgd expansion (6mgd total)
 - Development Driven
 - Flows consistently approaching 75%
 - TCEQ design mandate at 75%/3 months
 - Berry Creek Interceptor coming soon
 - Dove Springs Diversion coming soon



Wastewater

Treatment Plants – Capital Maintenance

- San Gabriel WWTP
 - \$10.5MM FY22 (Design/Construction)
 - Complete Rehab and Repair of existing facility – lift station, headworks, screens, treatment basins/diffusers, blowers, motors, chemicals, clearwell, irrigation system
- Dove Springs WWTP
 - \$500k (FY22 Design)
 - \$2.7MM (FY23 Construction)
 - Diffusers, blowers, internal pumping, DO controls





Water

- \$43,150,000
- Miscellaneous Improvements
- Linework
- Pumps/Tanks
- Treatment
- South Lake WTP Sizing
 - 22MDG or 44MDG

Water

Miscellaneous

- SCADA Upgrades
 - \$1.5MM
 - Communication/Control of System
- System Resiliency
 - \$1MM
 - Pastor Pump Station Overflow Protection
 - Systemwide Risk Assessment
- Water/Wastewater Master Plan Update
 - \$600k
 - Record setting system growth
 - Impact Fee Update – Last 2018
 - Integrated Resources – Long Term Water Plan

Water Linework

- Carriage Oaks Transmission
 - \$600k FY22 (Design)
 - \$2.5MM FY23 (Construction)
 - Approx. 4k LF of 12-24" waterline to improve ability to maintain flow from Stonewall Ranch Pump Station
- CR262 Waterline
 - \$2.5MM (FY22 Construction)
 - Approx. 8k LF of 12" waterline for Fire Flow (FM3405 area)
- Aviation Dr/I35 Connection
 - \$2.1MM
 - Fire Flow to Industrial Park
 - Approx 7k LF of 16" line along I35 Service Road connecting to 1015 pressure plane (vs 906/980)
- WD Line Upgrades & Relocates
 - \$500k FY22
 - Locations TBD – TCEQ, TxDOT, Wilco conflicts, development partnerships



Water Pumps/Tanks

- Tank Rehabilitation
 - \$750k
 - Tank priority based on assessment
- Stonewall Ranch Pump Station
 - \$600k FY22 (Design)
 - \$2.5MM FY23 (Construction)
 - Expand firm pumping capacity (currently 2-930gpm pumps/2.5mgd)
 - Proposed third pump (4mgd)



Water Treatment Plants

- Southside Water Treatment Plant Rehab
 - \$3MM
 - Austin Ave Facility
 - Membrane Pilot Study Summer 21 (contracted)
 - Foundation Work Immediately Fall 21 (contracted)
 - Tank Roof Repair Immediately Winter 21/22 (contracted)
 - Plant Rehab – new membrane canisters/racks Fall 22 (design contracted)

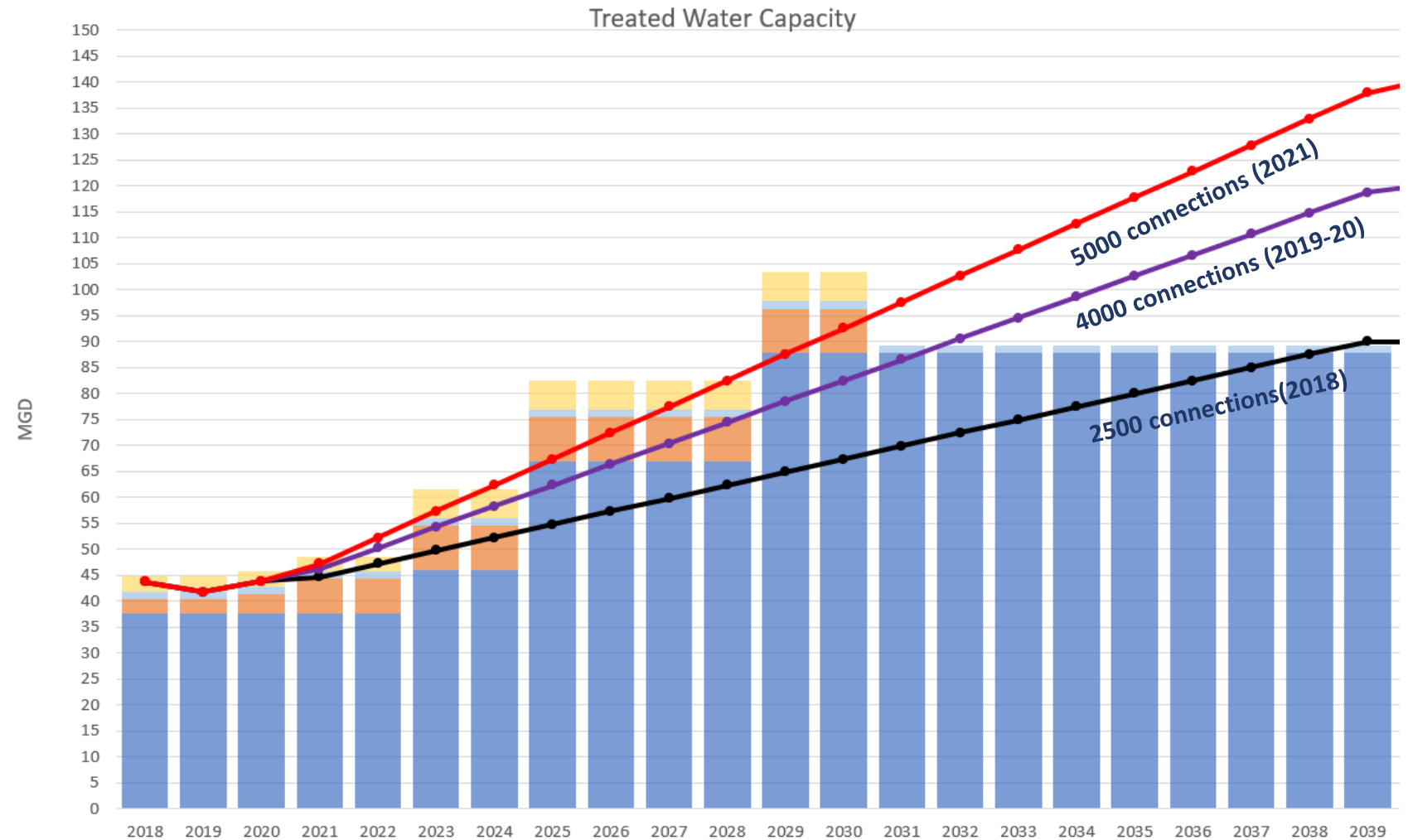
Water Treatment Plants

- South Lake Water Treatment Plant
 - 60% Design Complete – Bid Fall 2021
 - 1st Phase Online Summer 2025
 - \$100MM – 22MGD
 - 3 years - \$30MM FY22, \$40MM FY23, \$30MM FY24
 - Or \$160MM – 44MGD
 - 4 years - \$30MM FY22, \$50MM FY23, \$50MM FY24, \$30MM FY25

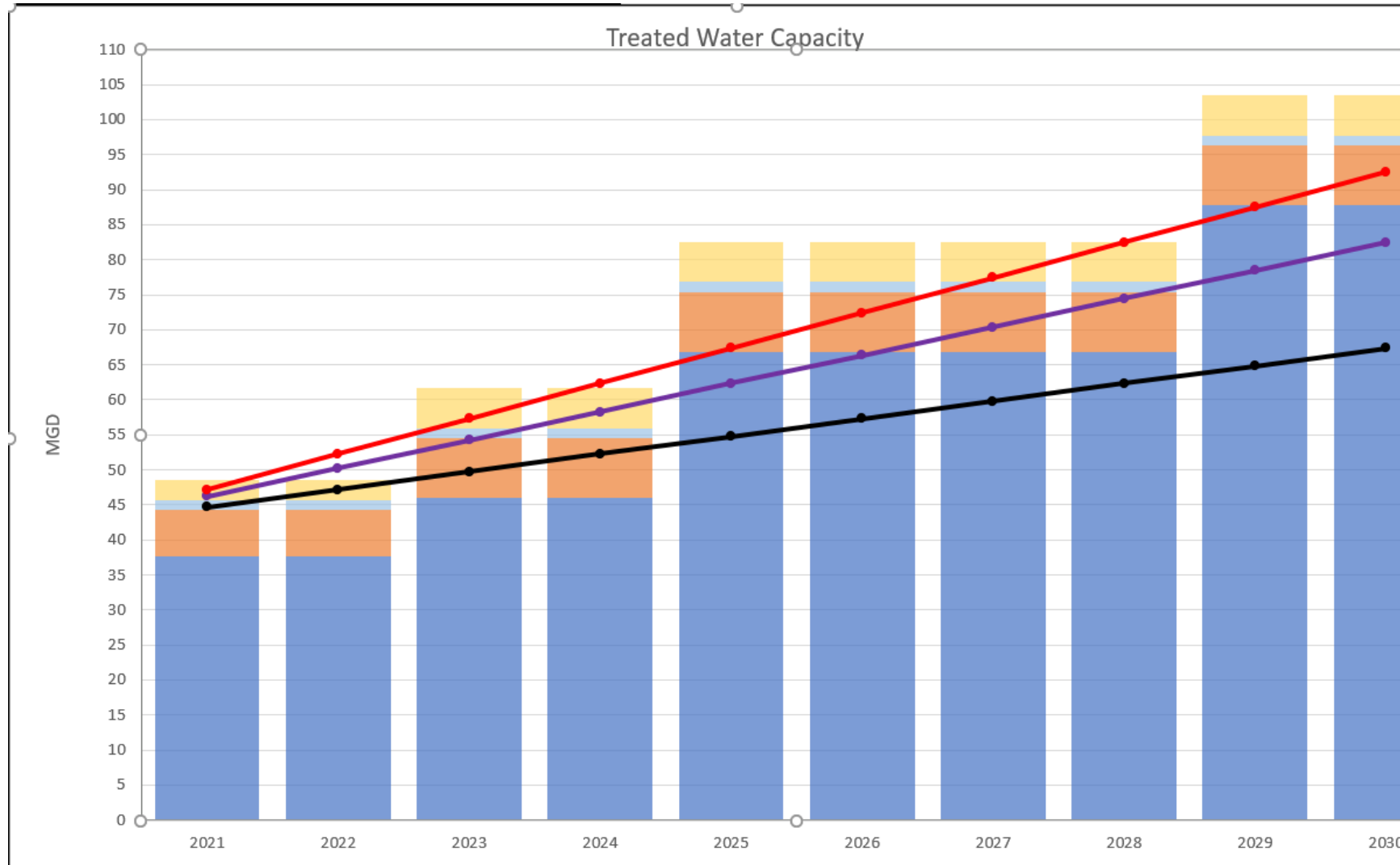


South Lake Water Treatment Plant Sizing

| | | Production Asset | Capacity | Utilization | | Start |
|---------------------|----------|--------------------|----------|-------------|----|-------|
| OWNED BY GEORGETOWN | FIRM | North Lake | 28.6 | 100 | ▲▼ | 2018 |
| | | South Side | 3.2 | 100 | ▲▼ | 2018 |
| | | Domel Firm | 1.5 | 100 | ▲▼ | 2018 |
| | | Park Plant | 6.3 | 100 | ▲▼ | 2018 |
| | | Planned Expansions | | | | |
| | | North Lake Exp | 8.8 | 100 | ▲▼ | 2023 |
| | | South Lake Ph | 22 | 100 | ▲▼ | 2025 |
| | | South Lake Ph | 22 | 100 | ▲▼ | 2029 |
| | | Other | 0 | 100 | ▲▼ | 2041 |
| | | | | | | |
| CONTRACTED WATER | FIRM | Domel | 1.5 | 100 | ▲▼ | 2018 |
| | | Other | 0 | 0 | ▲▼ | 2040 |
| | | | | | | |
| | | RR Rabbit Hill | 3 | 100 | ▲▼ | 2018 |
| | | RR Highlands | 1 | 100 | ▲▼ | 2020 |
| | | Leander | 3 | 100 | ▲▼ | 2021 |
| | | RR CR 175 | 2 | 100 | ▲▼ | 2023 |
| | | Opportunities | 0 | 75 | ▲▼ | 2028 |
| | | | | | | |
| | | RR Rabbit Hill | 3 | 100 | ▲▼ | 2018 |
| CONTRACTED WATER | NON-FIRM | RR CR 175 | 3 | 100 | ▲▼ | 2023 |
| | | other | 0 | 100 | ▲▼ | 2018 |



South Lake Water Treatment Plant Sizing



- South Lake Water Treatment Plant – 44MGD
- Start Design Now or 2023?
- Uniformity of equipment, contractor
- Must be online by summer 2029 at current growth rate.
- Any increase in growth rate, then needed summer 2028.

Financing Options for Large Plants

- Preliminary modeled estimates to seek initial Council feedback
- Use feedback to bring refined numbers back to Council in the budget process and remainder of water rate study
- Current fiscal policy prefers 20 years as maximum debt repayment period, but allows for 25 or 30 years for large infrastructure such as plants that have a longer useful life; requires Council to review the cost/benefit
- Deferring principal for a few years is another reasonable tool to grow into rate structure paid by plant users
- One or both options results in more interest payment over the life of the debt

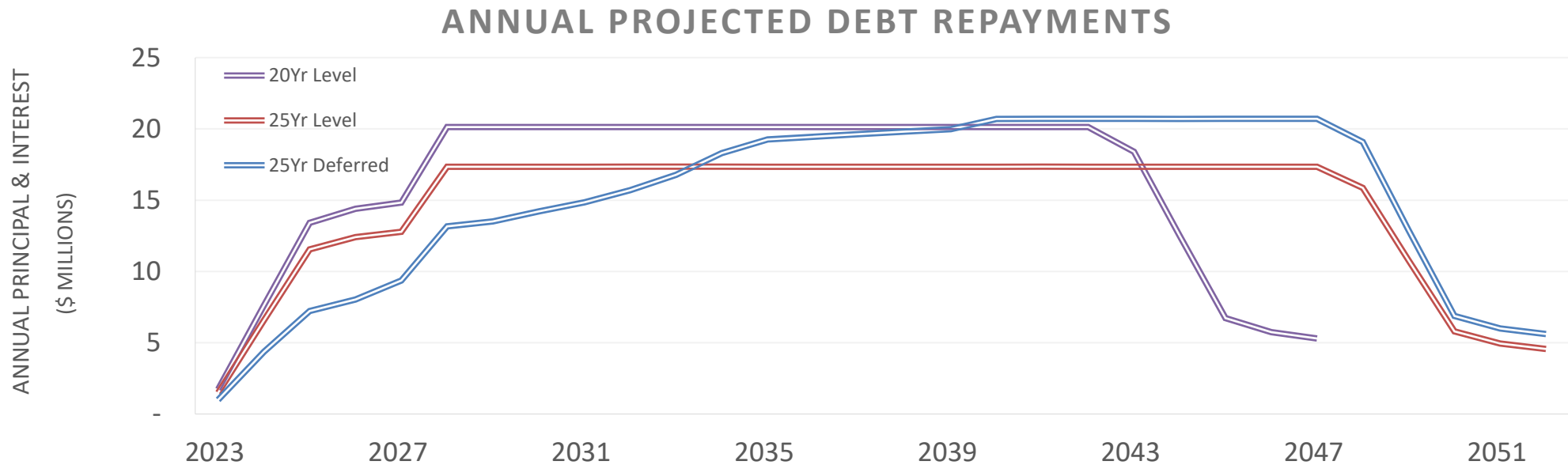
Debt Repayment Options – 44MGD

\$299M in Principal is for All Debt-funded CIP

| Debt Type | Term | Rate | Total Principal | Total Interest | Total Cost |
|---------------------|--------|-------|-----------------|----------------|----------------|
| Level Debt Payments | 20 Yrs | 3.00% | \$ 299,575,000 | \$ 103,147,912 | \$ 402,722,912 |
| Level Debt Payments | 25 Yrs | 3.00% | \$ 299,575,000 | \$ 134,139,417 | \$ 433,714,417 |
| Deferred Repayment | 25 Yrs | 3.00% | \$ 299,575,000 | \$ 151,173,867 | \$ 450,748,867 |

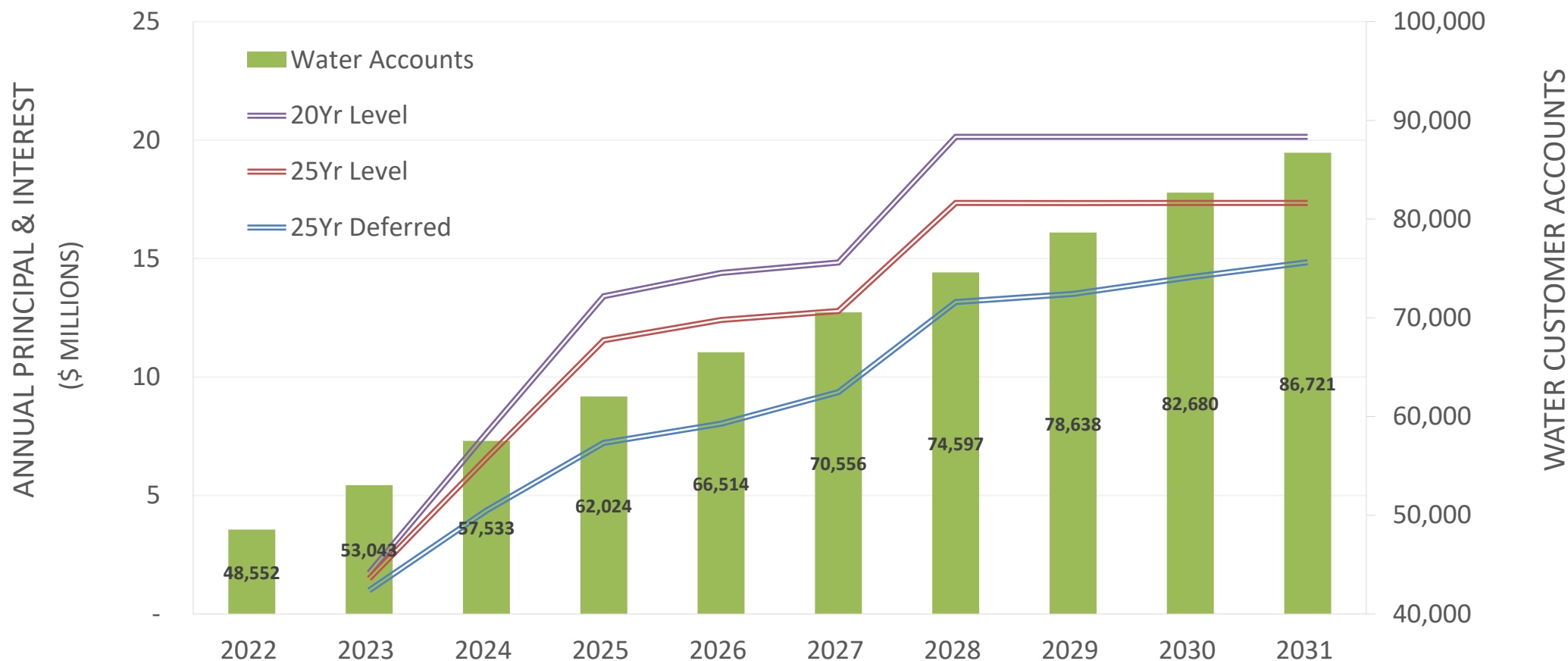
25 Yr Deferred debt repayments would total \$17M more than 25 Yr Level debt repayments.

25 Yr Level debt repayments would total \$31M more than 20 Yr Level debt repayments.



Debt Options Compared to Projected Growth

ANNUAL PROJECTED DEBT REPAYMENTS



Preliminary Projections Assuming 25 Yr Bonds

Comparing Customer Impacts from Level to Deferred Options

- Year over Year Rate Increases

| Debt Type | FY 2022 | FY 2023 | FY 2024 | FY 2025 | FY 2026 – FY 2031 |
|-------------------|--------------|--------------|--------------|--------------|-------------------|
| Level | 3.50% | 3.50% | 3.50% | 3.50% | 0.00% |
| Deferred | 3.00% | 3.00% | 1.75% | 1.75% | 0.00% |
| <i>Difference</i> | <i>0.50%</i> | <i>0.50%</i> | <i>1.75%</i> | <i>1.75%</i> | <i>0.00%</i> |

- Residential Median Monthly User Bill (6,000 Gals – Water; Flat Sewer)

| Debt Type | FY 2022 | FY 2023 | FY 2024 | FY 2025 | FY 2026 – FY 2031 |
|-------------------|----------------|----------------|----------------|----------------|-------------------|
| Level | \$ 72.92 | \$ 75.47 | \$ 78.11 | \$ 80.84 | \$ 80.84 |
| Deferred | \$ 72.56 | \$ 74.74 | \$ 76.05 | \$ 77.38 | \$ 77.38 |
| <i>Difference</i> | <i>\$ 0.35</i> | <i>\$ 0.73</i> | <i>\$ 2.06</i> | <i>\$ 3.46</i> | <i>\$ 3.46</i> |

Feedback from Council

- Both questions are related to each other
- Do you have a preference on the term and structure of debt for large treatment plants?
 - 20 years or 25?
 - Level payments or deferred structure payments?
- Do you have a preference on the range of rate impact for the median customer?
 - Fullest rate impact up front?
 - Grow into rate impact over time?

