

City of Upland Cost of Service Rate Study

Financial Plan Summary

January 2018



WATER
OUR FOCUS
OUR BUSINESS
OUR PASSION



carollo
Engineers...Working Wonders With Water®



COST OF SERVICE ANALYSIS: Step-by-Step approach to developing sound and defensible rates



Policy & Rate
Structure
Review



Revenue
Requirement
Analysis



Demand
Analysis



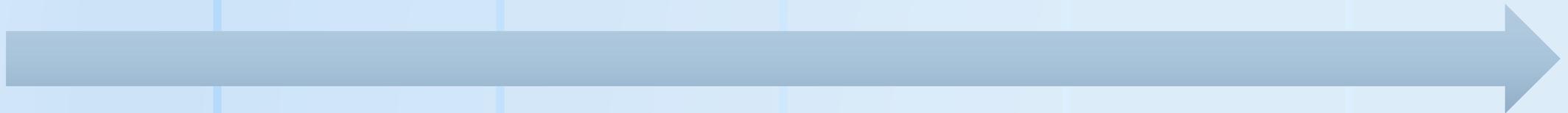
Cost of
Service
Analysis



Rate-Design
Analysis



Public
Outreach &
Messaging





Cost of Service: Study assess key questions to test the viability of the existing rates to meet the full needs of the Utility

Do the rates fully fund operating expenditures?

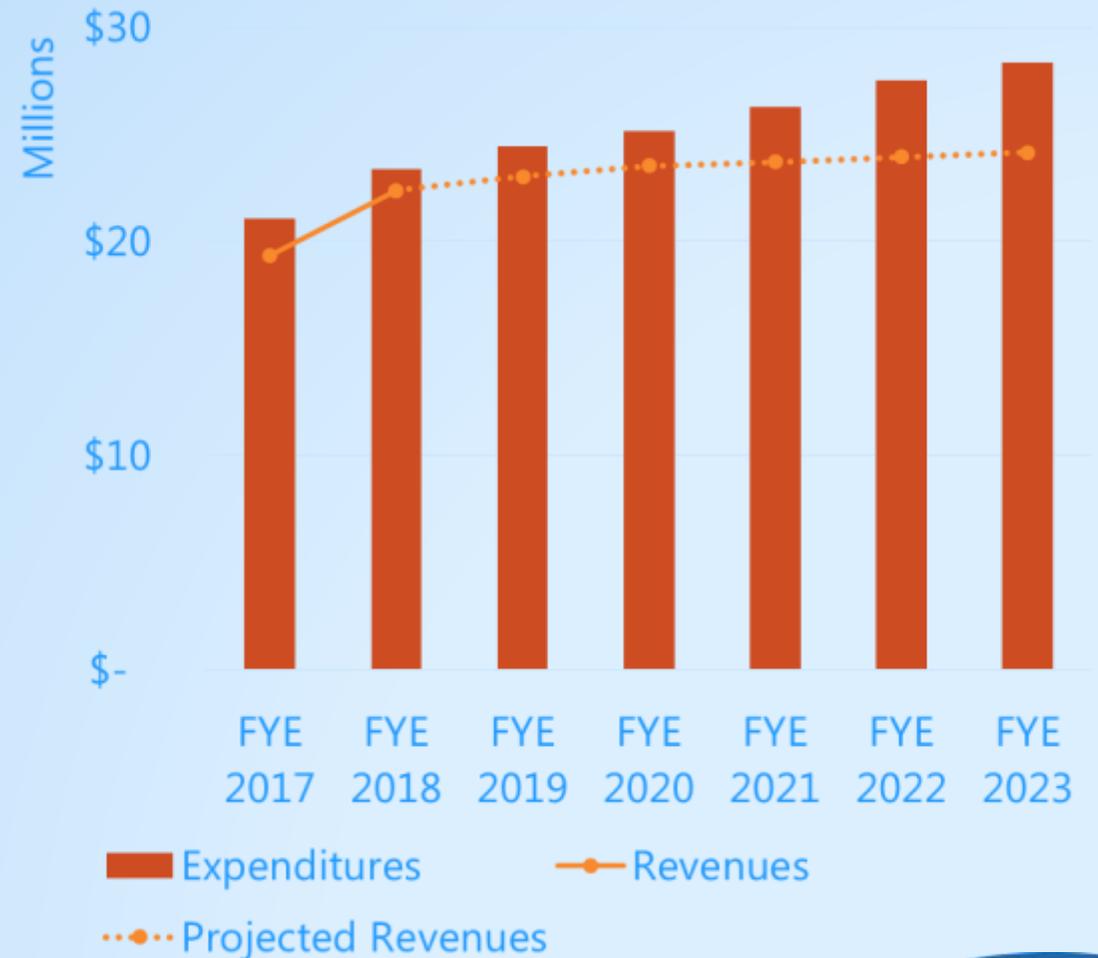
Is there sufficient revenue for bond coverage?

Is the capital plan fully funded through rates, reserves, and/or debt?



Overview: The City's existing budget is forecasting an operational shortfall in FYE 2018

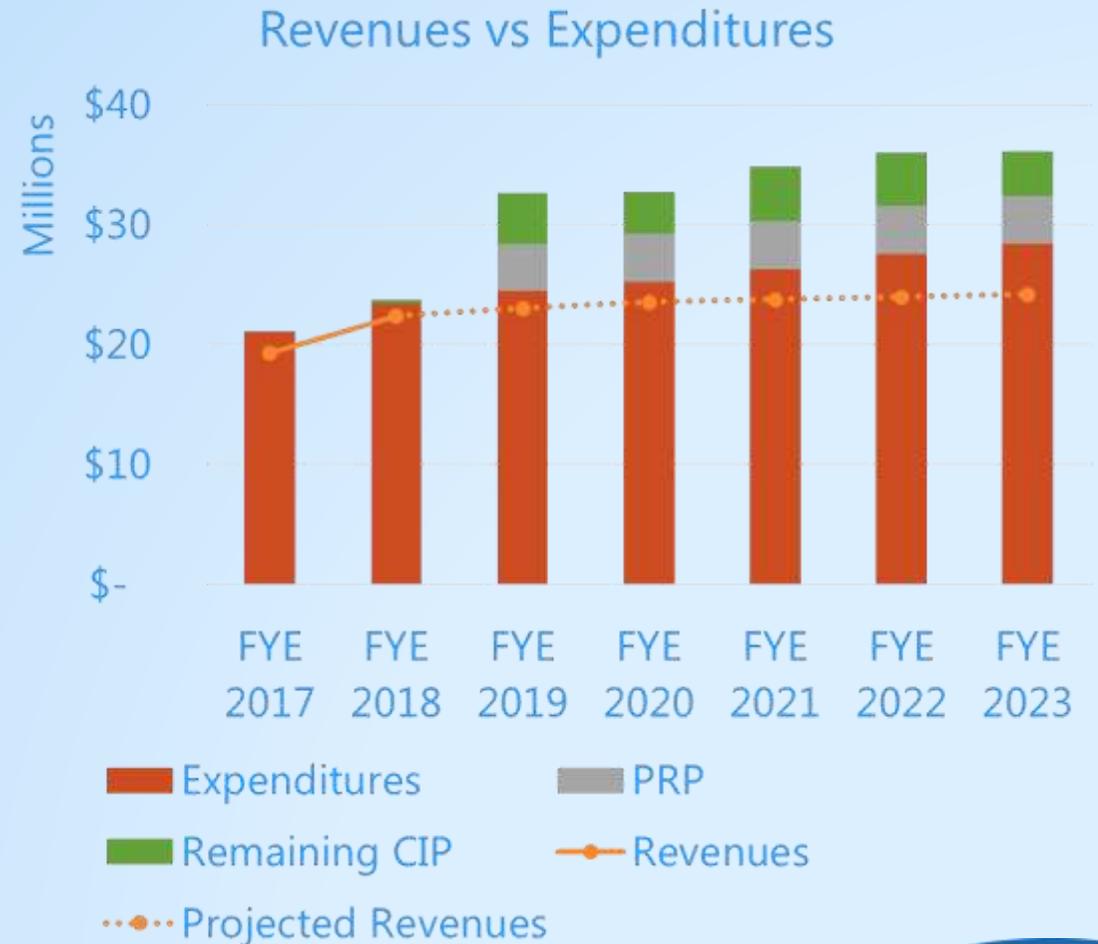
- Significant increases to water supply costs and decreased water sales have hampered the City's ability to adequately recover costs
 - Water costs—nearly half of all O&M costs—increased by 20 percent
 - All other costs increased by only 4 percent
 - Total budgeted O&M increased by 11 percent
- With no rate increases, the City is facing approx. \$1M O&M shortfall





Overview: Including CIP, the City's current revenues and reserves are insufficient

- Current rates are not capable of supporting the projected capital plan
 - Identified \$4M per year for Pipeline Replacement Program (PRP)
 - Average \$4M per year in CIP
- Current reserve balance (approx. \$900k) can cover the O&M shortfall for the rest of FYE 2018
 - But CIP and PRP remains unfunded





Capital Investment: Service Reliability and Financial Stability

Recent Projects:

- 14th St/16th St/22nd St Water Main & Service Reservoir 4 Rehab. & Water Quality Imps. • \$1.65 Million
- City Well 20 & Well 15 Repair/Rehab. • \$380,000
- \$275,000

Near Term Projects:

- New 7.5 Million Gallon Reservoir • \$16.5 Million (SRF)
- 5 Pressure Reducing Stations • \$1.5 Million
- 3rd Ave/9th St Pipeline Replacements • \$1.95 Million
- New Six Basins & Chino Basin Water Wells • \$4.5 Million
- Emergency Interconnection • \$300,000

Annual R&R Investment: Service Reliability and Financial Stability



Existing Facility Repair/Rehabilitation: Wells, Reservoirs, Booster Stations, Valves, etc.

- \$1.9 Million/year

Existing Pipeline Replacements

- \$4.0 Million/Year

Reservoir 4 Rehabilitation

Before



After



Well Pump Impeller Replacement

Before



After



Pipeline Repair



Valve Replacement



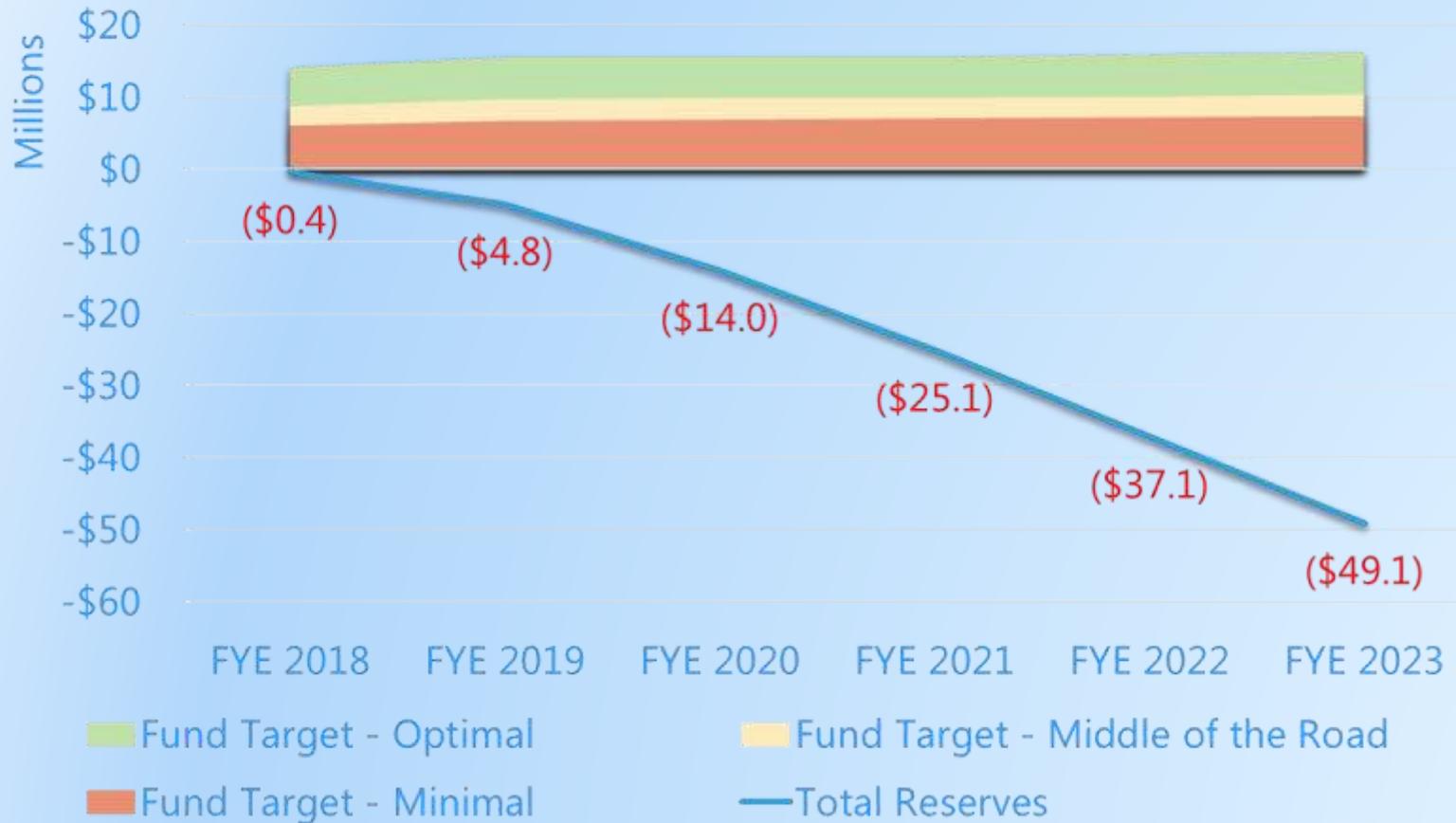
Meter Replacement Program





Reserves: Existing reserves fall well below the City's target and can not sustain forecasted O&M and CIP costs

Total Reserve Analysis

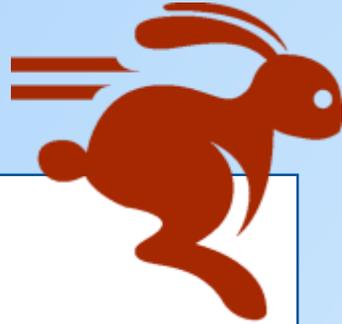


The zones are defined by the reserves ability to cover future expected O&M and CIP costs.

| Fund Target | Days of O&M Costs | % of Average Annual CIP |
|-------------|-------------------|-------------------------|
| Optimal | 180 | 100% |
| Middle | 120 | 50% |
| Minimal | 90 | 25% |

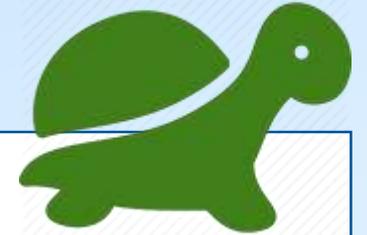


Possible Solutions: Two options for facing this budget shortfall



Immediate

- **Increases (%):**
 - 40 / 3 thereafter
- **Total CIP/PRP Funded:**
 - \$40M (100% of 5 year plan)
- **Reserves:**
 - \$6 Million in Reserves by 2023 (88 days), up from 900k in 2017 (16 days)
- **Typical Customer Impact:***
 - Approx. \$22 per month



Smoothed

- **Increases (%):**
 - 17 / 9 / 9 / 5 / 3 / 3
- **Total CIP/PRP Funded:**
 - \$27M (67% of 5 year plan)
- **Reserves:**
 - \$5 Million in Reserves by 2023 (60 days), up from \$900k in 2017 (16 days)
- **Typical Customer Impact:***
 - \$9.50 per month in Year 1 (April 2018)
 - Additional \$5 per month in Year 2 (January 2019)

*Typical customer assumes 34 CCF over two-months with a 5/8" meter

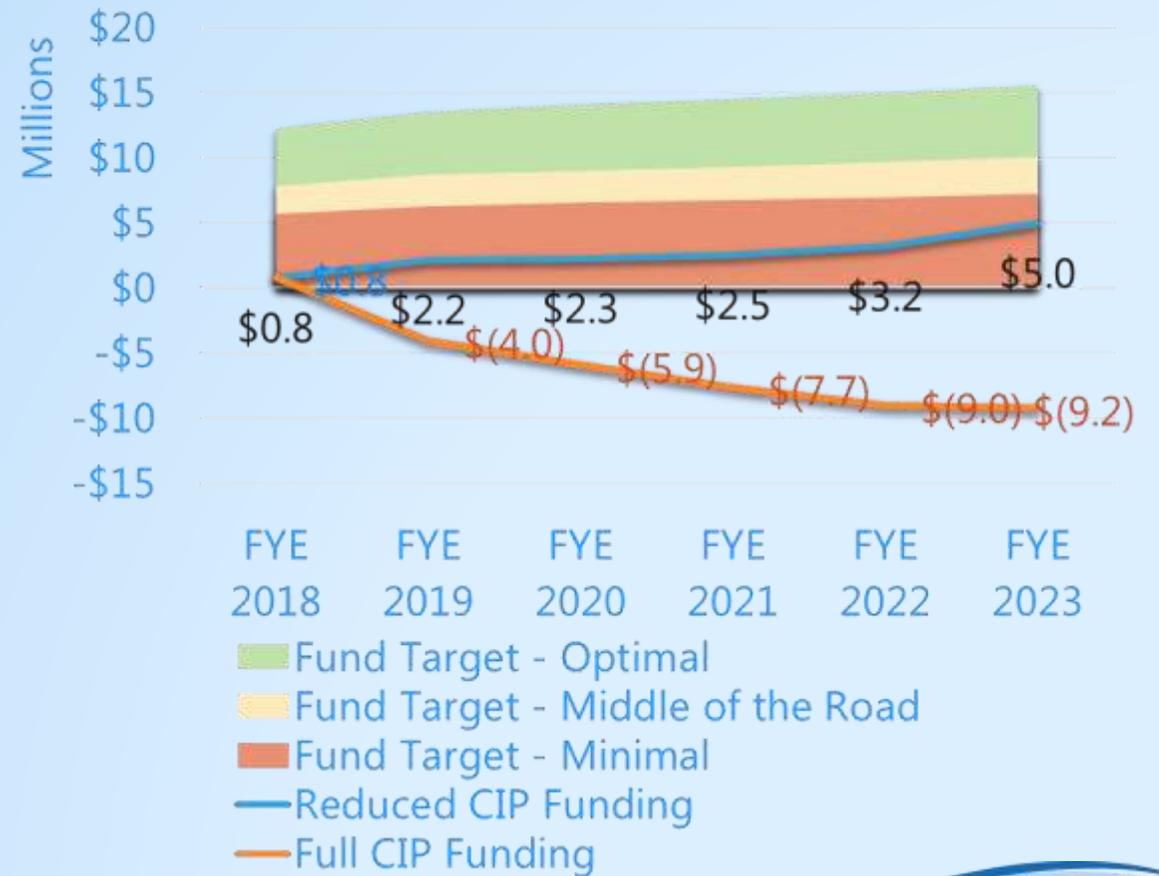


Recommendation: The "Smoothed" approach mitigates rate payer impacts by further deferring CIP and Pipeline Replacement

Revenues vs Expenditures



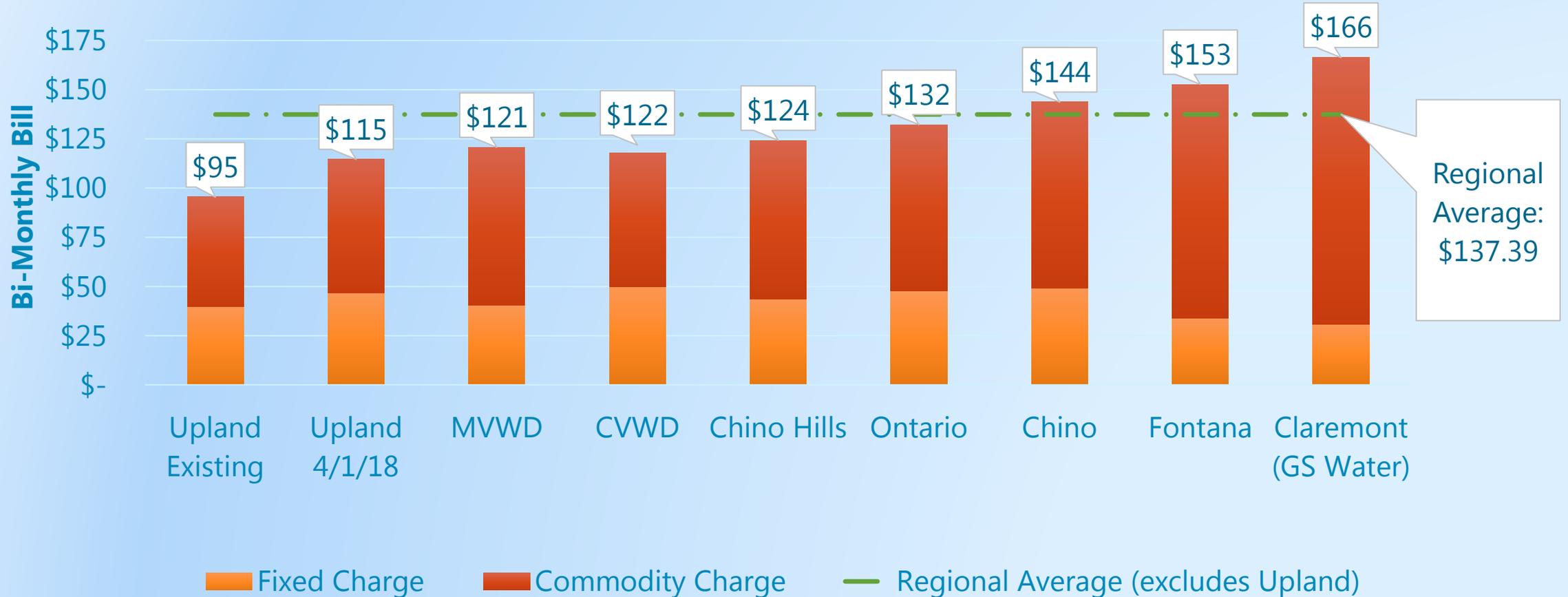
Total Reserve Analysis





Upland's Typical Bill - Less than all neighboring utilities with the proposed "Smoothed" increase in FYE 2018

Regional Bill Comparison @ 34 CCF with 5/8" Meter





Proposed Bi-Monthly Fixed Rate: Recovers 31% of the Utility's identified revenues

| Meter Size | FYE 2018 | FYE 2019 | FYE 2020 | FYE 2021 | FYE 2022 | FYE 2023 |
|------------|------------|------------|------------|------------|------------|------------|
| 5/8" | \$46.90 | \$52.25 | \$57.85 | \$60.80 | \$62.75 | \$64.70 |
| 3/4" | \$59.40 | \$66.25 | \$73.30 | \$77.05 | \$79.50 | \$82.00 |
| 1" | \$84.45 | \$94.15 | \$104.20 | \$109.60 | \$113.00 | \$116.55 |
| 1-1/2" | \$147.10 | \$164.00 | \$181.50 | \$190.85 | \$196.85 | \$203.05 |
| 2" | \$222.25 | \$247.80 | \$274.20 | \$288.40 | \$297.45 | \$306.80 |
| 3" | \$422.70 | \$471.25 | \$521.50 | \$548.45 | \$565.70 | \$583.45 |
| 4" | \$648.20 | \$722.65 | \$799.75 | \$841.05 | \$867.45 | \$894.75 |
| 6" | \$1,274.55 | \$1,421.00 | \$1,572.55 | \$1,653.80 | \$1,705.70 | \$1,759.35 |
| 8" | \$2,026.20 | \$2,259.00 | \$2,499.95 | \$2,629.10 | \$2,711.65 | \$2,796.90 |

**FYE 2018 rates to be effective April 2018, then January 1st for all subsequent years.*





Proposed Commodity Rates: Reflect each customer classes proportional impact on the Utility System

| Single Family (CCF) | FYE 2018 | FYE 2019 | FYE 2020 | FYE 2021 | FYE 2022 | FYE 2023 |
|---------------------|----------|----------|----------|----------|----------|----------|
| Tier 1 (0 – 20) | \$1.76 | \$1.91 | \$2.07 | \$2.18 | \$2.24 | \$2.31 |
| Tier 2 (21 – 50) | \$2.32 | \$2.52 | \$2.73 | \$2.87 | \$2.96 | \$3.05 |
| Tier 3 (51 - +) | \$2.78 | \$3.01 | \$3.26 | \$3.43 | \$3.54 | \$3.65 |

| Class | FYE 2018 | FYE 2019 | FYE 2020 | FYE 2021 | FYE 2022 | FYE 2023 |
|-----------------|----------|----------|----------|----------|----------|----------|
| Multi-Family | \$2.17 | \$2.34 | \$2.54 | \$2.67 | \$2.76 | \$2.85 |
| Commercial | 2.08 | 2.25 | 2.44 | 2.57 | 2.65 | 2.73 |
| Landscape | 2.39 | 2.58 | 2.81 | 2.95 | 3.05 | 3.14 |
| Public Agencies | 2.64 | 2.85 | 3.09 | 3.24 | 3.34 | 3.44 |
| Schools | 2.51 | 2.73 | 2.97 | 3.14 | 3.25 | 3.37 |
| Recycled Water | 1.91 | 2.06 | 2.25 | 2.36 | 2.44 | 2.51 |

**FYE 2018 rates to be effective April 2018, then January 1st for all subsequent years.*





Temporary Demand Management Surcharge: Protects the Utility from lost revenues associated with unforeseen water restrictions

| Demand Reduction | Level 1 ~10% | Level 2 ~20% | Level 3 ~30% |
|-------------------------------------|-------------------------|-------------------------|-------------------------|
| Revenue Impact | \$1,799,000 | \$3,567,000 | \$5,289,000 |
| Avoided Cost (Variable Costs) | 1,105,000 | 2,186,000 | 3,270,000 |
| Total Additional Revenue Need | \$694,000 | \$1,381,000 | \$2,019,000 |
| Forecasted Usage | 6,982,053 | 6,207,236 | 5,429,815 |
| Temporary Surcharge (\$/CCF) | \$0.10 | \$0.17 | \$0.31 |

* Cost savings calculated as water purchase costs, reduced by the percentage demand decrease.

** Baseline demand equal to 7,774,210 CCF.

***As required by Council, effective upon subsequent adoption of City Council Resolution and based on increased per unit cost.

