

City of Loveland

## Water and Wastewater Cost-of-Service Study and Rate Design

Revenue Requirements Review  
June 20, 2018

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## Discussion Outline

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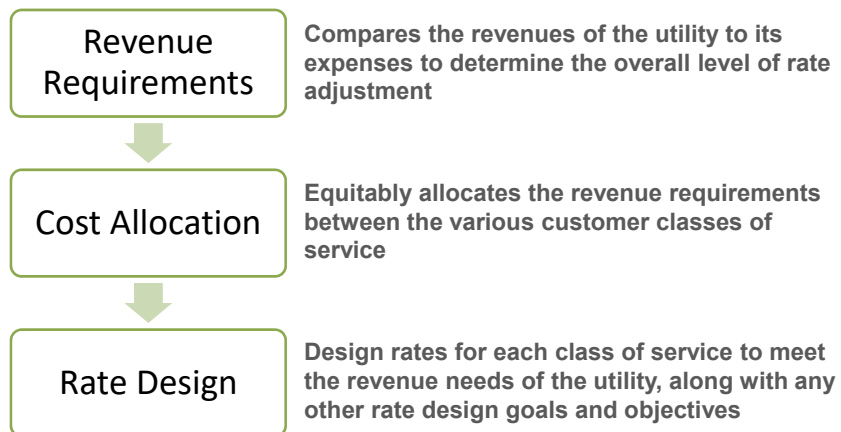
- ◆ Introduction to rate studies
- ◆ Overview of rate scenarios
- ◆ Detailed scenario discussion
- ◆ Next steps/questions



## What is a Rate Study?



## Revenue Requirement





## Revenue Requirement

O&M Costs

Debt Svc.

Cash CIP

Cash Reserve

Financial Goals

Cash Needs

Existing Rates

Misc. Fees

Debt Proceeds

Impact Fees

Other Income

Income Sources

Create multi-year projections of the cash needs and income sources

Usually resulting in a number of alternative scenarios

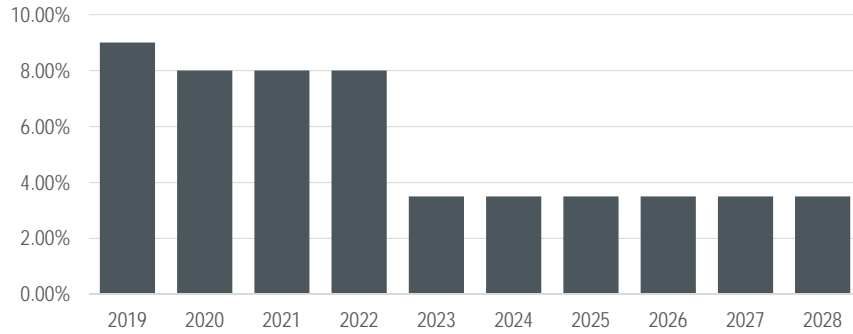
Adjustment to rates – if required – comes from selected scenario

# Water



## Existing Rate Track

Annual Rate Increases



These rates were designed to support debt for a handful of key (and sizeable) projects – most projects are paid with cash



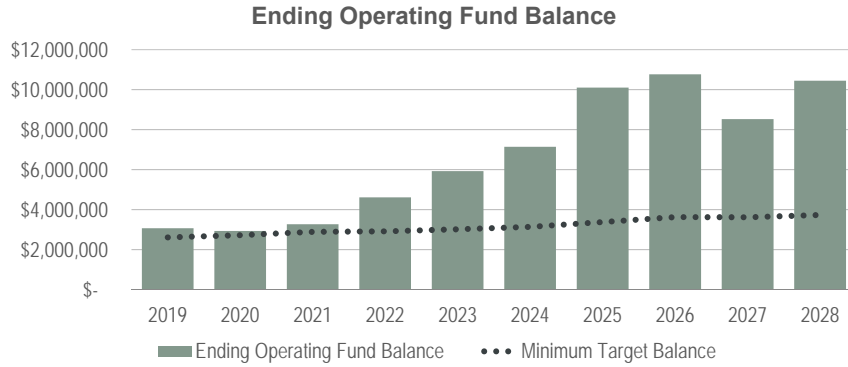
## Existing Rate Track – Planned Borrowing

	Operating	SIF	Raw Water
Existing	\$3.2M NBH, \$10.0M Wells Fargo		
2019	\$1.0M Water Tank	\$3.0M Water Tank	\$37.6M Windy Gap Firming
2020			
2021			
2022			
2023			
2024		\$13.0M 402 Water Line	
2025			
2026			
2027			
2028		\$5.0M Water Tank	
<b>Outstanding Debt by 2029</b>			<b>\$ 82.2M</b>

Approximately 45% of the debt is for Windy Gap alone; 25% is for SIF projects; the rest is for WTP improvements already constructed



## Existing Rate Track



Cash reserves grow in outer years by design –the cash is needed to pay for future capital projects.



## Optimized Debt – Planned Borrowing

	Operating	SIF	Raw Water
Existing	\$3.2M NBH, \$10.0M Wells Fargo		
2019	\$1.0M Water Tank + \$3.5M Line Replacements	\$3.0M Water Tank	\$37.6M Windy Gap Firming
2020			
2021			
2022			
2023	\$3.0M Line Replacement		
2024		\$13.0M 402 Water Line	
2025			
2026	\$2.0M Line Replacement		
2027	\$4.0M 36" Transmission Line		
2028		\$5.0M Water Tank	
<b>Outstanding Principal - 2029</b>			<b>\$ 90.7M</b>

With this scenario, we introduced \$12.5M in additional debt to achieve a lower rate track than the existing one

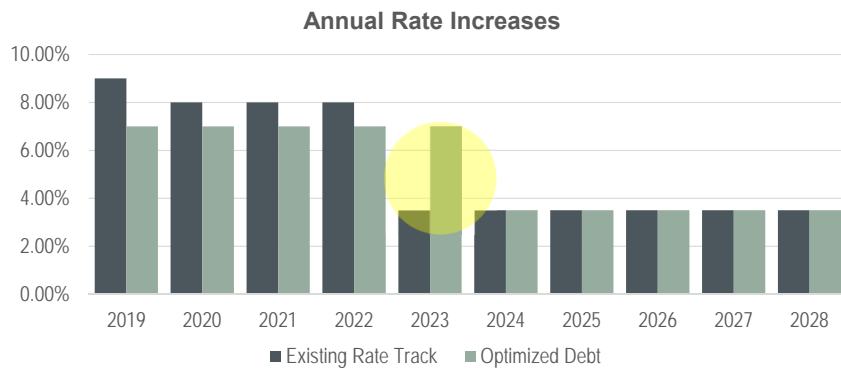


## Added: 120-Days Cash Reserve

- ◆ With additional debt in City's capital structure, we recommend considering an increase to existing reserve policies
- ◆ Reasons for additional cash
  - Provide additional cushion for operations given the increase in fixed debt payments
  - Enhance credit ratings in the case additional debt is needed in the future
- ◆ Recommend phasing-in the policy from approximately 55 days cash on hand (15% of O&M) to:
  - 120-days by 2029
  - 150-days long term



## Optimized Debt – 120 Days O&M Target

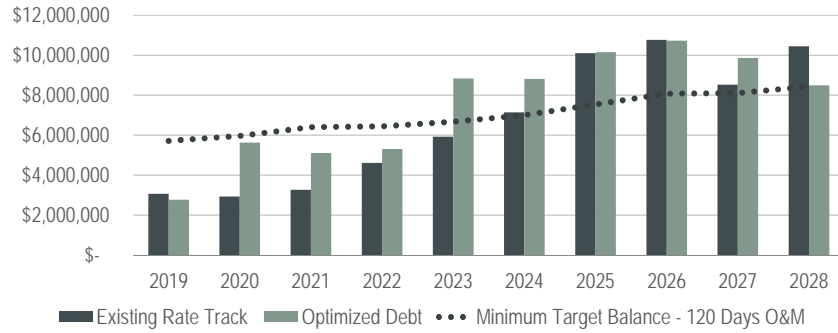


The additional debt provides rate relief in the earlier years of the plan, but would require a larger increase in 2023



## Optimized Debt – 120 Days O&M Target

Ending Operating Fund Balance



The City can increase renewal and replacement funding to \$4M per year and still achieve a high level of cash reserve by 2023



## \$6M Annual Replacement - Planned Debt

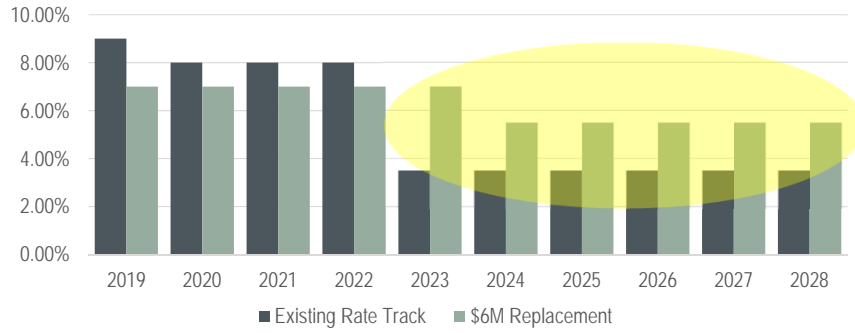
	Operating	SIF	Raw Water
Existing	\$3.2M NBH, \$10.0M Wells Fargo		
2019	\$1.0M Water Tank + \$3.5M Line Replacements	\$3.0M Water Tank	\$37.6M Windy Gap Firming
2020			
2021			
2022			
2023	\$3.0M Line Replacement		
2024		\$13.0M 402 Water Line	
2025			
2026	\$2.0M Line Replacement		
2027	\$8.0M 36" Transmission Line		
2028		\$5.0M Water Tank	
<b>Outstanding Principal - 2029</b>			<b>\$ 94.2M</b>

This scenario includes slightly more debt (+\$4M), but increases renewal and replacement funding to \$6M per year



## \$6M Annual Replacement – 120 Days O&M Target

### Annual Rate Increases

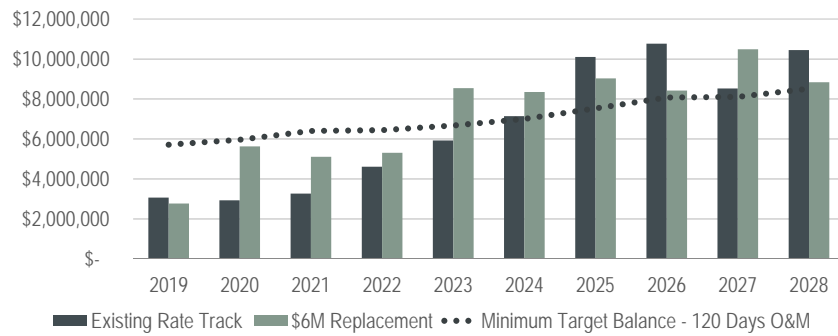


Achieving additional \$6M in annual cash funding for R&R would require additional commitment from rates in outer years



## \$6M Annual Replacement – 120 Days O&M Target

### Ending Operating Fund Balance



The City can achieve the 120-day cash reserve policy by 2023 without additional impact on rates





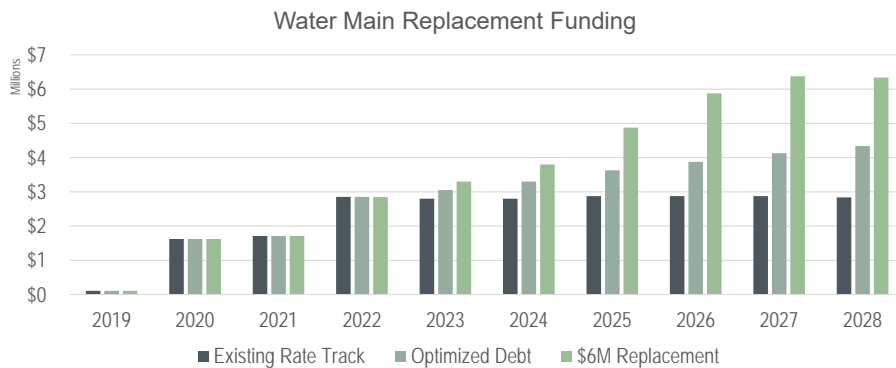
## Comparing the Scenarios - Debt

	Debt as % of Projected Assets (est. \$310M by 2029)
Existing Rate Track	26%
Optimized Debt	29%
\$6M Replacement	30%

The City's debt to asset ratio (last column) is favorable compared to other utilities of this size which tend to have 40-60% debt



## Comparing the Scenarios - System Reinvestment



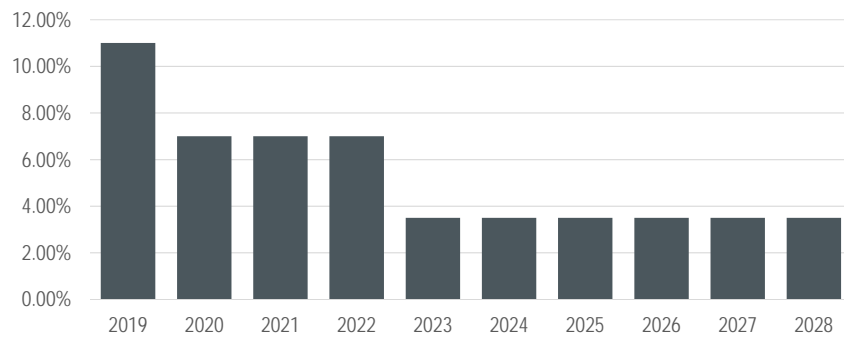
Both new scenarios support higher levels of system reinvestment, but it will take continued rates increases above inflation to reach \$6M

# Wastewater



## Existing Rate Track

Annual Rate Increases



These rates were designed to support debt for a handful of key (and sizeable) projects – most projects are paid with cash



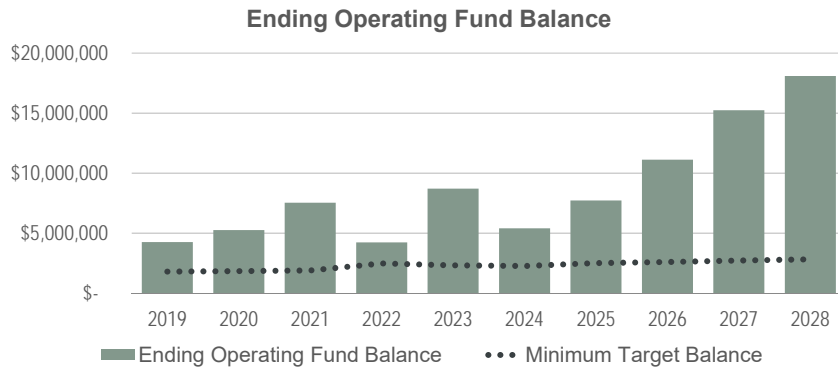
## Existing Rate Track – Planned Borrowing

	Operating	SIF
Existing	\$16.0M WWTP	\$8.9M WWTP
2019		
2020		
2021		
2022		\$9.5M Boyd Basin
2023		
2024		\$17.7M 402 Sewer Line
2025		
2026		
2027		
2028		
<b>Outstanding Principal - 2029</b>		<b>\$ 37.8M</b>

About 66% of the debt is for WWTP projects that are already constructed or in progress; 34% is for future projects



## Existing Rate Track



Existing rate track also generates cash sufficient to pay for most capital projects



## Optimized Debt – Planned Borrowing

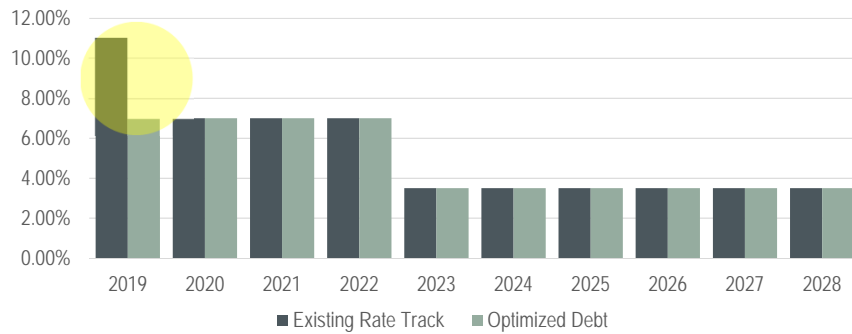
	Operating	SIF
Existing	\$16.0M WWTP	\$8.9M WWTP
2019		
2020		
2021		
2022	\$2.0M WWTP Digester	\$9.5M Boyd Basin
2023		
2024	\$2.0M WWTP Odor Control	\$17.7M 402 Sewer Line
2025		
2026		
2027		
2028		
<b>Outstanding Principal - 2029</b>		<b>\$ 41.1M</b>

In this scenario, we introduce \$4M in additional debt between 2022 and 2024 to create a lower overall rate track



## Optimized Debt – 120 Days O&M Target

Annual Rate Increases

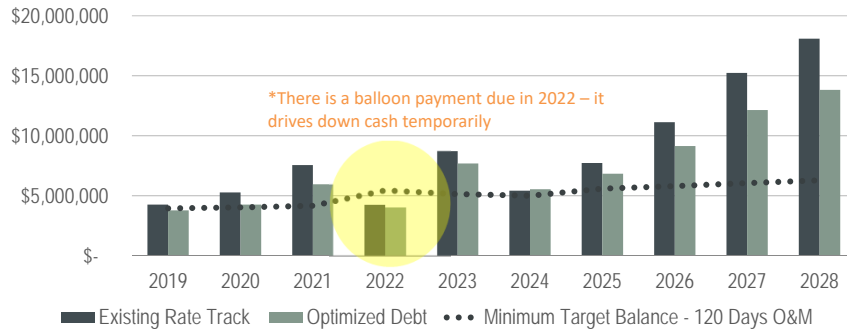


The additional debt would allow the City to reduce the 2019 planned increase from 11% to 7%



## Optimized Debt – 120 Days O&M Target

### Ending Operating Fund Balance



Wastewater can achieve a higher cash reserve level without additional impact on rates with exception of 2022



## Comparing the Scenarios - Debt

### Debt as % of Projected Assets (est. \$140M by 2029)

Existing Rate Track	27%
Optimized Debt	29%

The City's debt to asset ratio (last column) is favorable compared to other utilities of this size which tend to have 40-60% debt



## Next Steps

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- ◆ We are asking for your feedback and comments from today's presentation
- ◆ Once received, we finalize these revenue requirements
- ◆ Work on the cost-of-service and rate recommendations



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