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# City of Milan Utility Rate Model

FY2022 to FY2026



# Utility Rate Model Summary

- The current customer rates are not generating sufficient cashflow to pay for the System's existing cash needs and to maintain the bare minimum recommended cash reserve ("target working capital"). A significant increase to customer rates is necessary in order to achieve that bare minimum in the next 5 years.
- We were not able to obtain a clear understanding of the System's capital needs over the next 5 years, so the model calculates a recommended increase based on the existing operations and debt service. Any additional capital outlay or debt service incurred will be subject to an additional surcharge. A sample table of what that surcharge could be based on current units sold has been included.
- Over the last decade, the City's volume of water and sewer sold has continued to decrease. This decrease is a significant contributing factor to the City needing a significant rate increase.



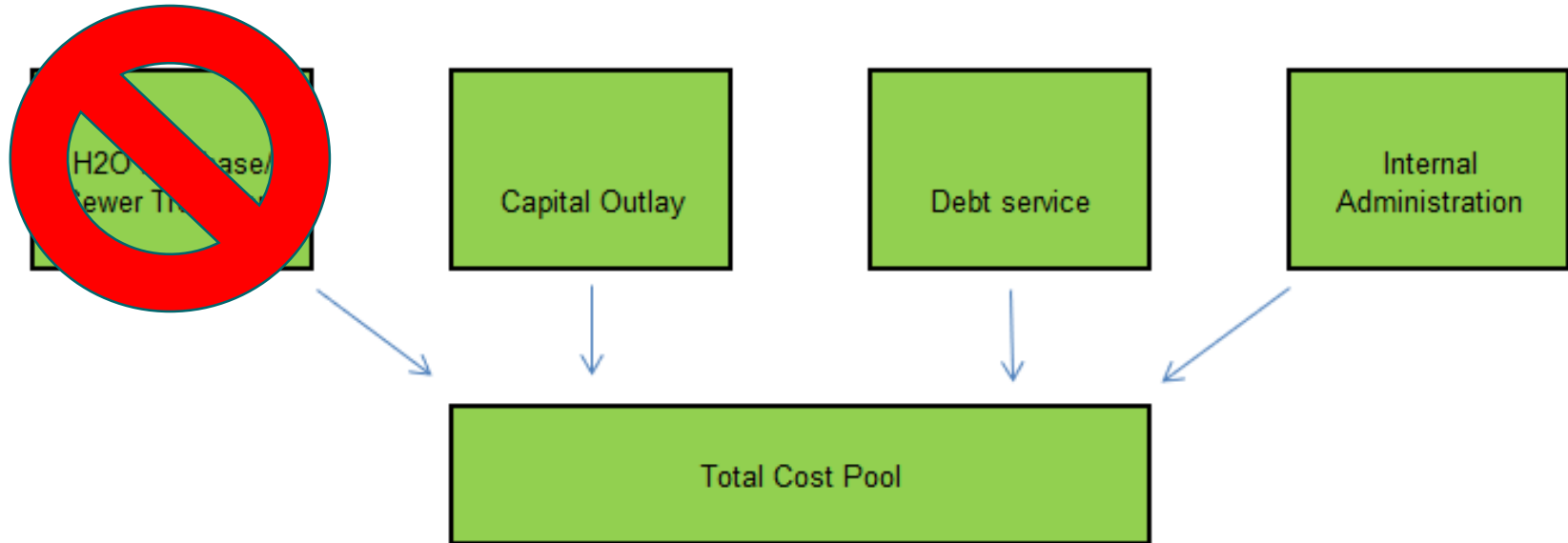
# Utility Rate Model

- **“Cash-needs Basis”** – The model sets rates based on anticipated cash needs. Depreciation and accrual accounting is excluded from the model. This method requires the City to maintain lower cash reserves (and lower utility rates) than it would if rates were set to fund depreciation expense.
- **“Target Working Capital”** – Cash and current assets, net of current liabilities. Categories discussed on later slide.
- **5 years (2022-2026)** – By utilizing a 5-year horizon, the City is able to “smooth out” the rate increases to avoid rate “spiking”. This should provide a level of consistency for the City’s customers and prevent any unnecessary surprises related to future rate increases.
  - Cruise ship vs. speed boat



# Rate Model - Step 1

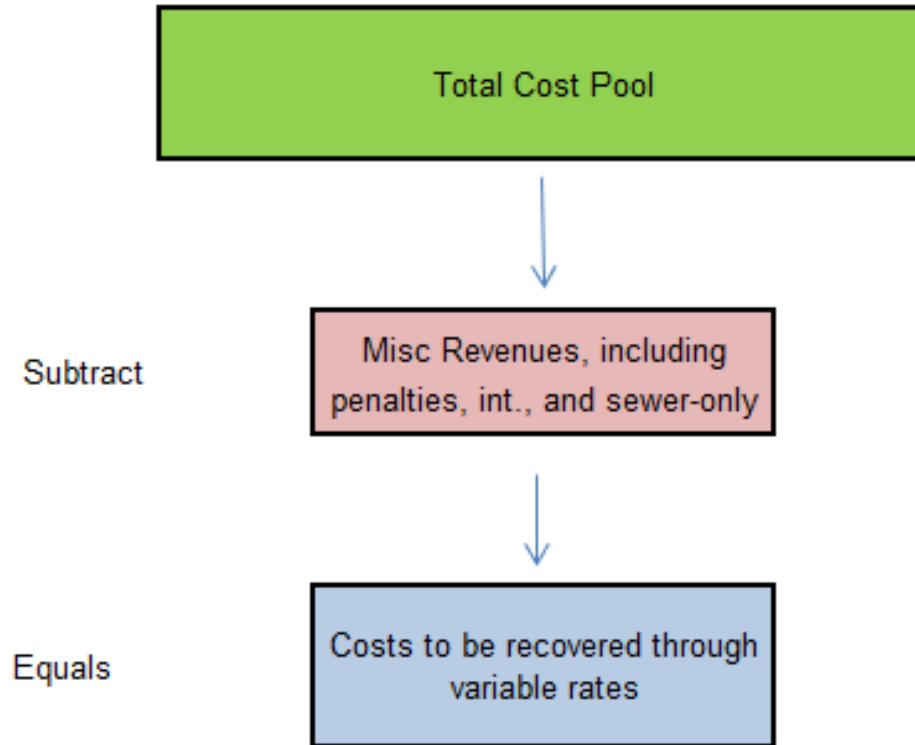
## Calculate the Total Cost Pool





# Rate Model – Step 2

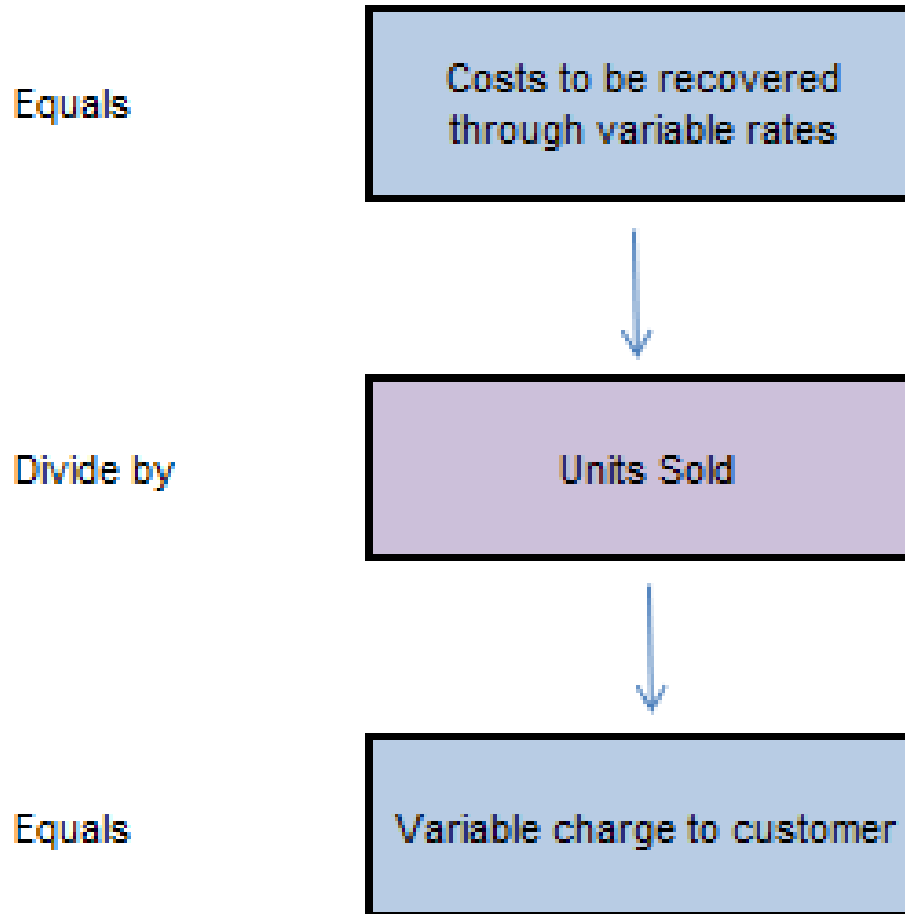
## Calculate costs to be covered by rates





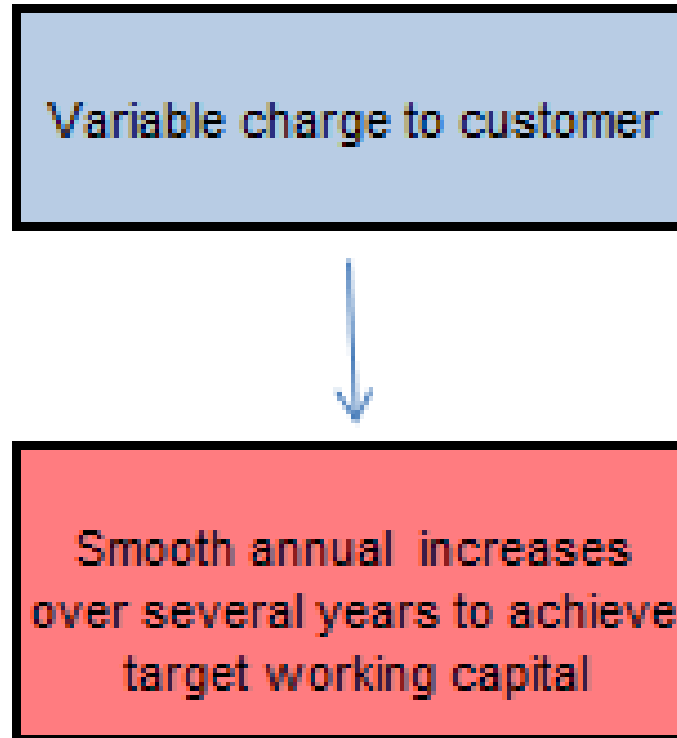
# Rate Model – Step 3

## Calculate the Variable Rate





# Rate Model – Step 4 (Multi-Year Models)





# What is “Target Working Capital”?

- Maintain some amount of cash and current assets (net of liabilities) in the bank at the end of the model.
  
- 4 “buckets” of working capital
  1. Operating reserve – 120 days
  2. Next year’s debt service payments - \$900k per year for 2015 sewer bonds falls off in 2026
  3. Emergency capital replacement – 2%
  4. ~~Planned capital replacement~~
  
- As of June 11, the City’s starting working capital is less than \$500,000. The rate model assumes that the City will grow that balance to \$1.7M





# Rate Model – Step 1

## Calculate the Total Cost Pool

- Internal Operations – Includes inflationary cost increases over the next 5 years.
- Capital Outlay
  - \$100k/year for misc equipment or small projects included in model
  - No significant projects included in the model calculation, although we understand there will be significant projects soon.
- Debt service –
  - Existing debt service is approx. \$1.4M per year through 2026, then less than \$500k/yr
  - No new debt is included in the model, although we expect the City will finance upcoming capital projects



# Rate Model – Step 2

## Calculate costs to be covered by rates - Readiness to Serve Charge

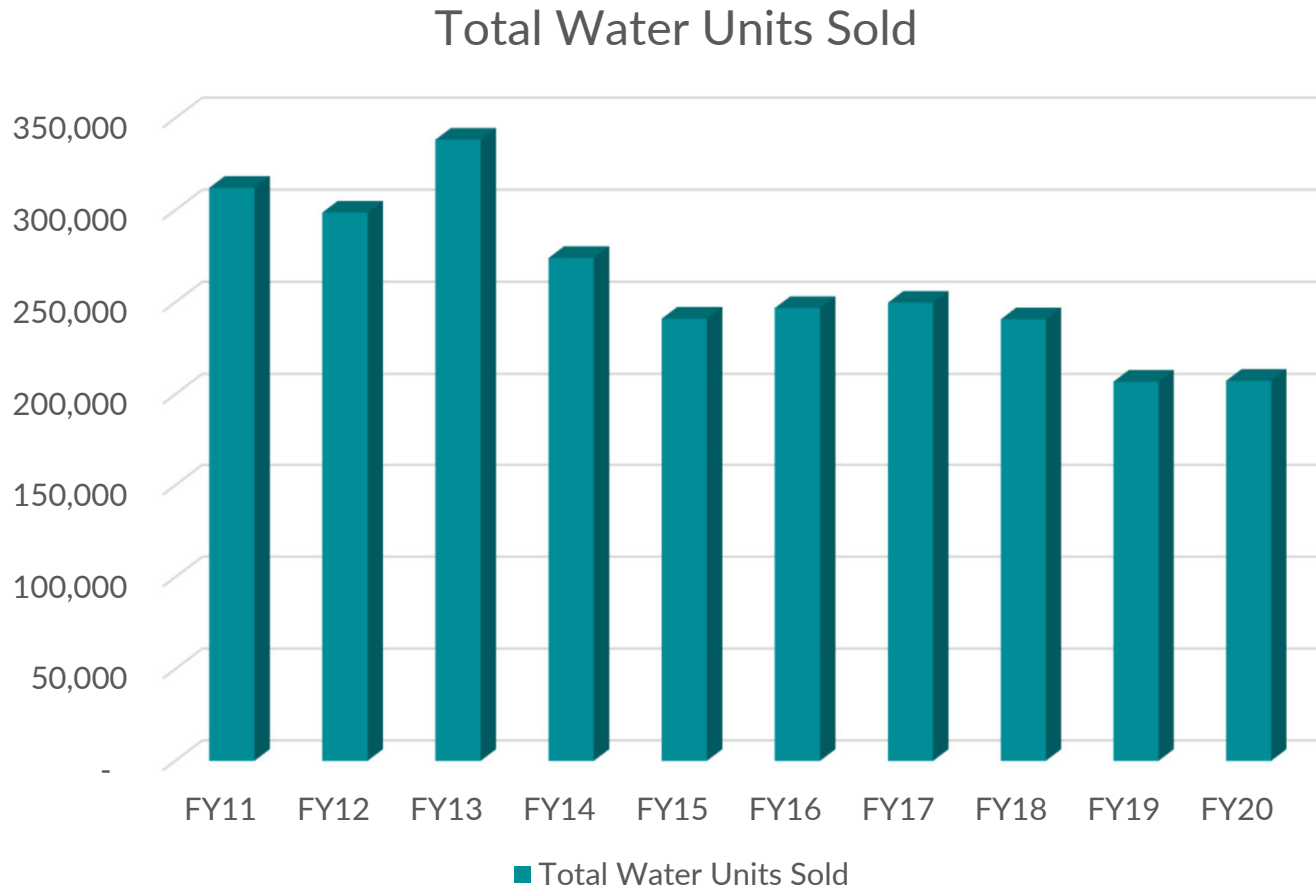
Fiscal Year	Water RTS Revenue Generated	Sewer RTS Revenue Generated	Total RTS Revenue Generated	
2019 Actual	\$185,000	\$373,000	\$558,000	
2020 Actual	\$183,000	\$374,000	\$557,000	
2021 Budget	\$235,000	\$561,000	\$796,000	43% increase

For the 2,600 residential customers with a 5/8 to 1 inch meter, this is only a \$10.64 ANNUAL increase.



# Rate Model – Step 3

## Calculate the Variable Rate - Units Sold

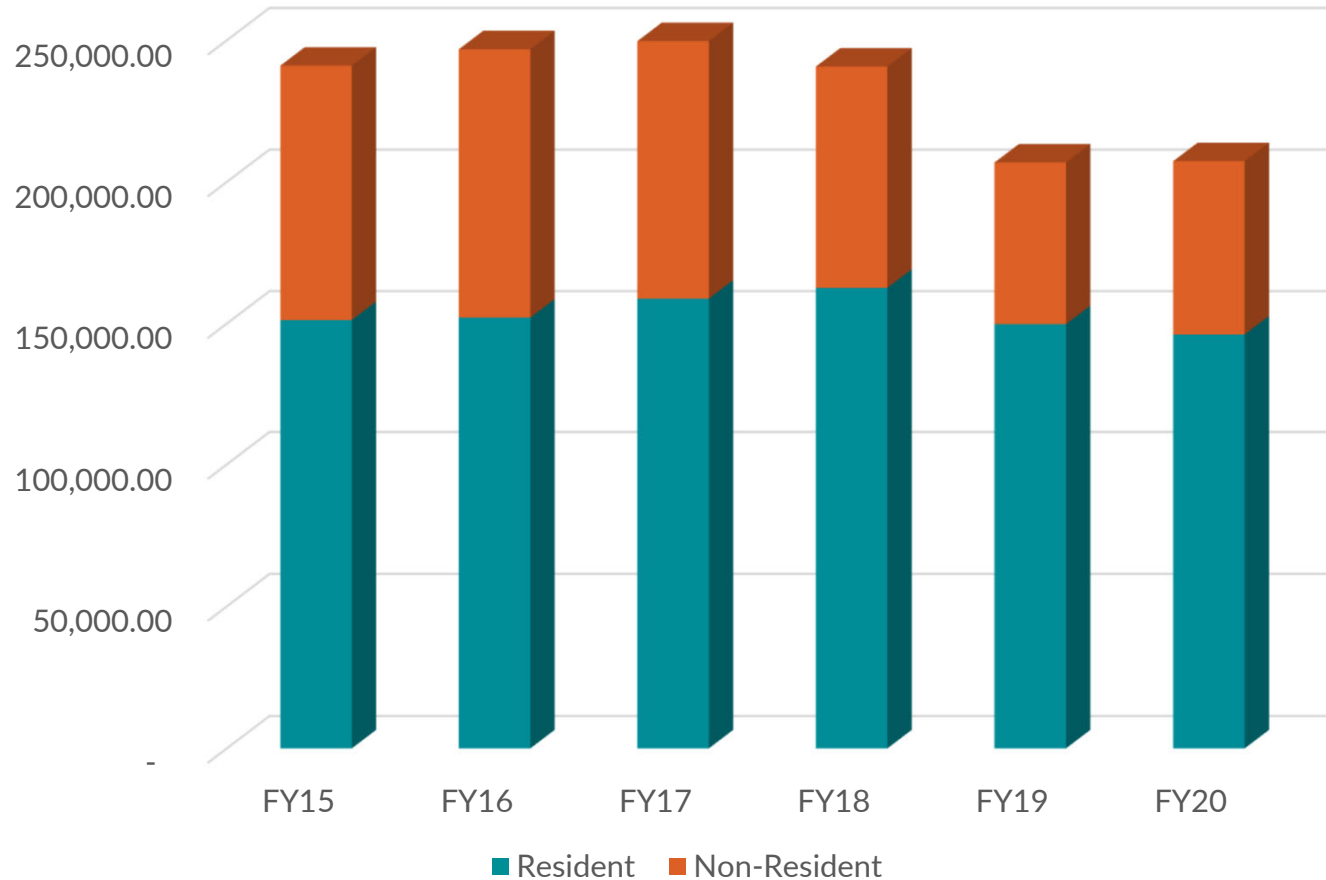




# Rate Model – Step 3

## Calculate the Variable Rate

### - Residential/Nonresidential Sales



Over 6 years, Non-Resident volume sold fell from 37% to 29.5% of total sales.



# Rate Model – Step 3

## Calculate the Variable Rate - Sales Volume

Even if operating expenses were flat, the declining sales volume would automatically drive an increase to the per unit rate.

With the substantial increases to debt service and capital outlay over the past few years and next several years, the decrease in sales volume will exacerbate the need for an additional rate increase.



# Proposed Rate Changes

	<b>Current Per Unit</b>	<b>Proposed Year 1</b>	<b>Percent increase</b>
Water	\$ 2.55	\$ 3.03	19%
Sewer	<u>\$ 6.45</u>	<u>\$ 7.15</u>	11%
Total	<u><u>\$ 9.00</u></u>	<u><u>\$ 10.18</u></u>	<u>13.2%</u>

- Similar 13.2% increase annually for 5 years
- Note: This increase does not include additional capital or debt service



# What's not included?

The City has significant capital needs for its plants and other infrastructure. As the projects and funding sources have not yet been finalized, they have been excluded from the rate model. Instead, we have included the following chart. If annual capital outlay or debt service is added to the Water or Sewer budget, the following additional charge will be necessary to be added to the variable commodity rate.

## Additional per unit charge Water OR Sewer

Add'l Annual Debt Service or Capital Outlay	Water		Sewer	
	Resident	Non-Resident	Resident	Non-Resident
\$ 125,000	\$ 0.48	\$ 0.96	\$ 0.52	\$ 1.03
\$ 250,000	\$ 0.96	\$ 1.92	\$ 1.03	\$ 2.06
\$ 500,000	\$ 1.92	\$ 3.85	\$ 2.06	\$ 4.12
\$ 750,000	\$ 2.88	\$ 5.77	\$ 3.09	\$ 6.18
\$ 1,000,000	\$ 3.85	\$ 7.69	\$ 4.12	\$ 8.24
\$ 1,250,000	\$ 4.81	\$ 9.62	\$ 5.15	\$ 10.31
\$ 1,500,000	\$ 5.77	\$ 11.54	\$ 6.18	\$ 12.37
\$ 1,750,000	\$ 6.73	\$ 13.46	\$ 7.21	\$ 14.43
\$ 2,000,000	\$ 7.69	\$ 15.38	\$ 8.24	\$ 16.49
\$ 3,000,000	\$ 11.54	\$ 23.08	\$ 12.37	\$ 24.73



# 2016 W&S Model

	Current Per Unit	2016's Projected Rates for 2021	Over/short of 2016 Proj.
Water	\$ 2.55	\$ 2.21	\$ 0.34
Sewer	<u>\$ 6.45</u>	<u>\$ 8.45</u>	<u>\$ (2.00)</u>
Total	<u>\$ 9.00</u>	<u>\$ 10.66</u>	<u>\$ (1.66)</u>

## Since 2016:

- City took on over \$4M of USDA loans that were not part of the 2016 model
- Rate increases have not kept up with the original projection or the additional needs due to new debt

- The combination of those two factors above, along with the decline in sales volume, have prevented the City from achieving its target.
- Target WC for FY22 (\$2.4M) is a little higher than projected in 2016 due to the increase in annual debt service costs. FY2026 decreases to \$1.7M because of expiring debt.

	Current WC	2016's Projected WC for 2021	Over/short of 2016 Proj.
Water	\$ 248,772	\$ 619,893	\$ (371,121)
Sewer	<u>\$ 248,772</u>	<u>\$ 1,617,943</u>	<u>\$ (1,369,171)</u>
Total	<u>\$ 497,545</u>	<u>\$ 2,237,836</u>	<u>\$ (1,740,291)</u>





# Next Steps

Consider approving rates as presented

Finalize plans for additional projects and/or funding sources

If necessary, consider additional raises for capital or debt service



# Thank you for the opportunity to serve the City of Milan.

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