Town of Purcellville, VA

Water and Sewer Rate Study Financial Planning Assumptions and Preliminary Results

May 1, 2019

Stantec

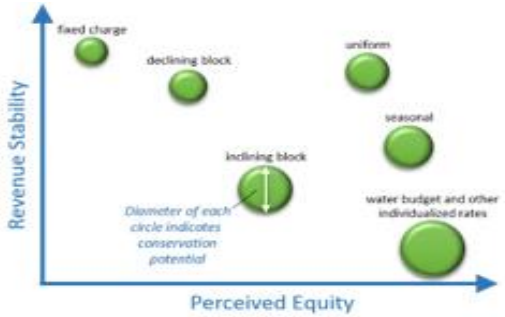
Study Approach / Overview

Financial Plan

- Operating Costs
- Capital Costs
- Revenue Adjustments
- Financial Policies
  - Debt Coverage
  - Reserves

Cost of Service

- Evaluate Available Data
- Establish Classes
- Identify Methodology
- Compare Results to Current Revenue



Rate Design

- Evaluate Objectives
- Identify Structures
- Set Parameters
- Customer Impacts

Financial Planning Assumptions – Expenditures

- FY20 budget used as starting point for modeling
  - Expenditures inflated on line item level by expenditure type (average annual 3%)
- Payment of water and sewer existing debt service
  - Outstanding Principal - Water: $9.3m, Sewer: $30.9m
- 10-year capital plan included in FY20 budget document
  - Water $21.6m
  - Sewer $3.1m
- Annual estimate for Capital Replacement Costs
  - Water $150k
  - Sewer $200k
- Assume use of cash and debt to fund future capital
  - Utility models optimize for cash / debt mix

Financial Planning Assumptions - Revenues

- At this stage in study, no change in rate structure
- Annual 1% decline in per account usage
  - Consistent with historical Town usage patterns and industry experience
- Significant reduction in new customer growth from historical levels
  - Availability fee forecast of revenues based on FY20 budget document

Financial Planning Target

- Sufficient Reserve Levels
  - Target > 12 months of O&M and debt service expenses
- Structural Balance Revenues to Expenditures
- Ratio of net income to debt payments:
  - Target > 1.0 times annual payment requirements

Initial Financial Plan Scenarios

1) Assume 3% annual increases in water and sewer rates

2) Flat Rate Model

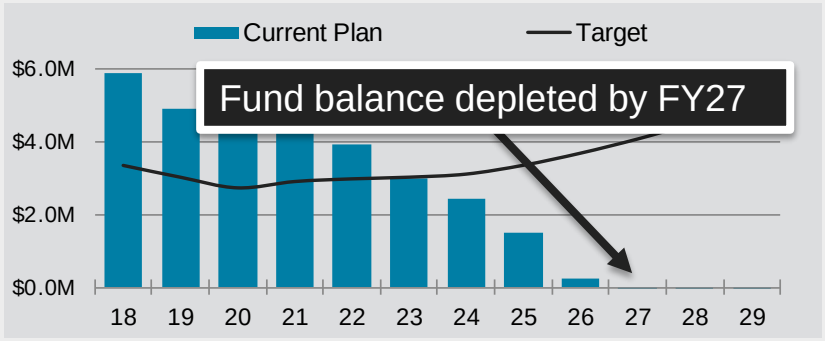
3) New 3% meals tax funding ($1.2m per year) transferred to Sewer Fund

Model Demonstration - Scenario Analysis

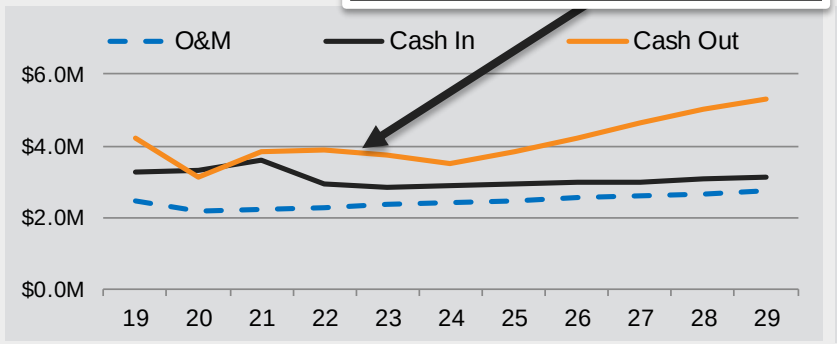
Water - Scenario 1: 3% annual increases

	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2023	FY 2028
Water Rate Plan	0.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	15.93%	34.40%
Debt Coverage	1.51	2.10	2.05	0.98	0.74	0.56	0.40	0.29	0.22	0.19	0.17	Scenario Manager	
Single Family Bi-Monthly Water Bill	$90.50	$93.20	$96.01	$98.89	$101.83	$104.89	$108.06	$111.30	$114.65	$118.12	$121.66	Add'l Rev	$0
Cost per Day	$1.51	$1.55	$1.60	$1.65	$1.70	$1.75	$1.80	$1.86	$1.91	$1.97	$2.03		

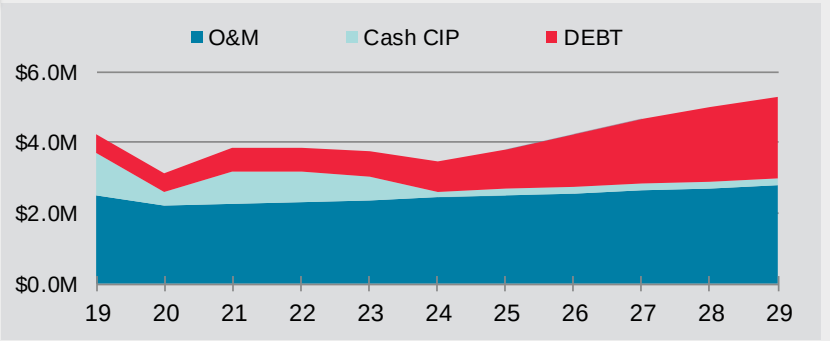
Operating Fund (Cash)



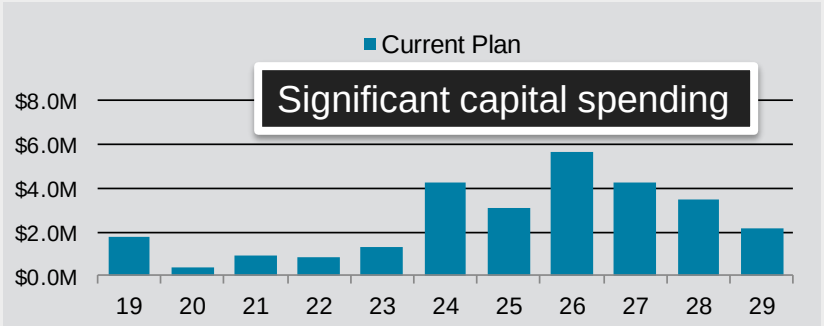
Revenues vs. Expenses



Expenses by Type



CIP Spending



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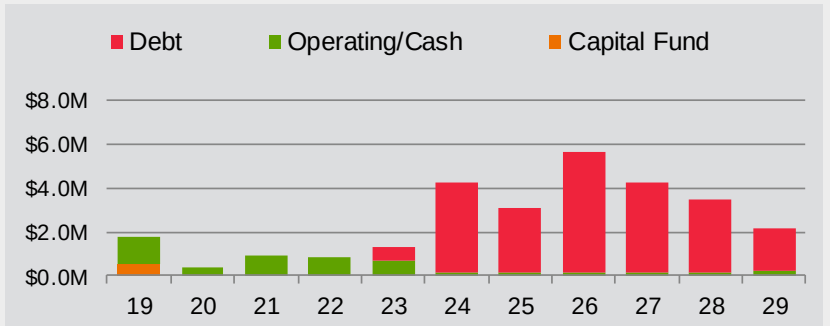
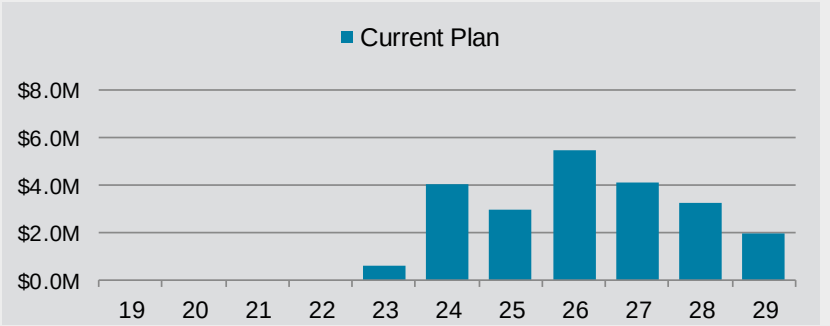


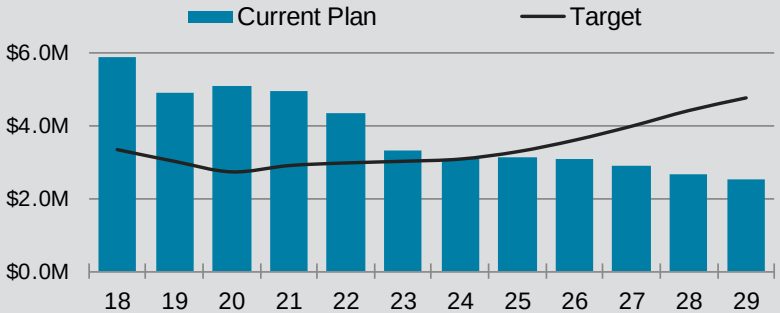
Borrowing



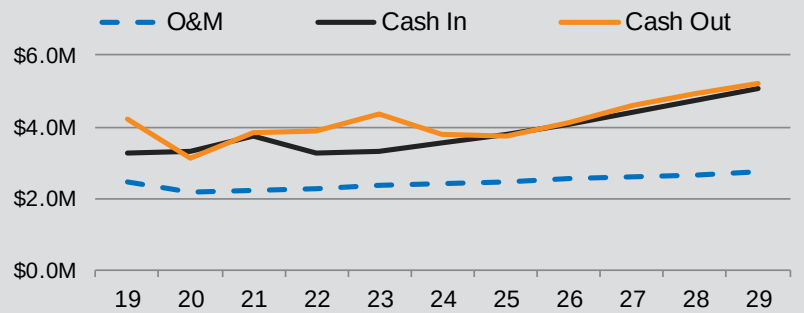
Water - Scenario 2: Level Increases

	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2023	FY 2028
Water Rate Plan	0.00%	3.00%	9.50%	9.50%	9.50%	9.50%	9.50%	9.50%	9.50%	9.50%	9.50%	48.13%	133.13%
Debt Coverage	1.51	2.10	2.26	1.42	1.47	1.41	1.26	1.12	1.02	1.01	1.04	Scenario Manager	
Single Family Bi-Monthly Water Bill	$90.50	$93.20	$102.02	$111.68	$122.29	$133.92	$146.63	$160.59	$175.82	$192.49	$210.77	Add'l Rev	$0
Cost per Day	$1.51	$1.55	$1.70	$1.86	$2.04	$2.23	$2.44	$2.68	$2.93	$3.21	$3.51		

Operating Fund (Cash)



Revenues vs. Expenses



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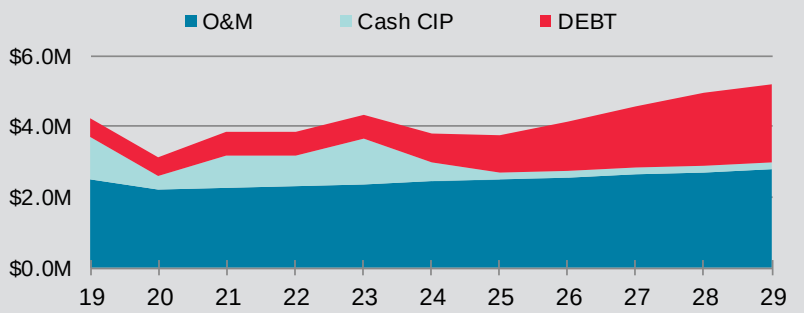

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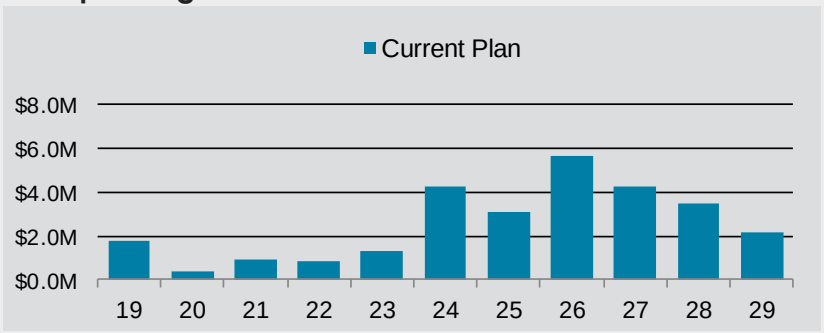

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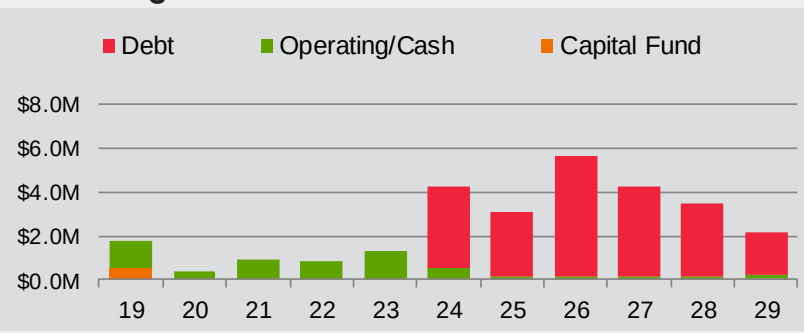

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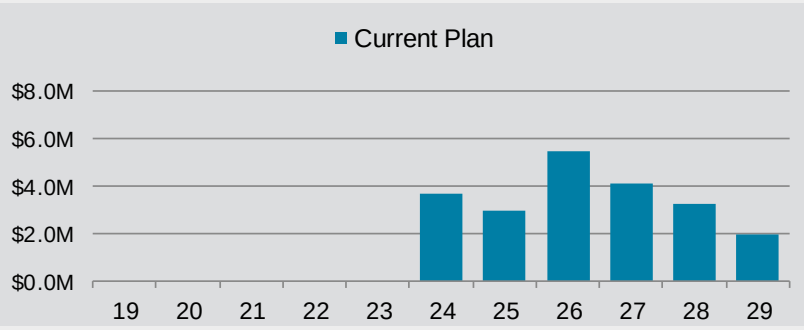


Sewer - Scenario 1: 3% annual increases

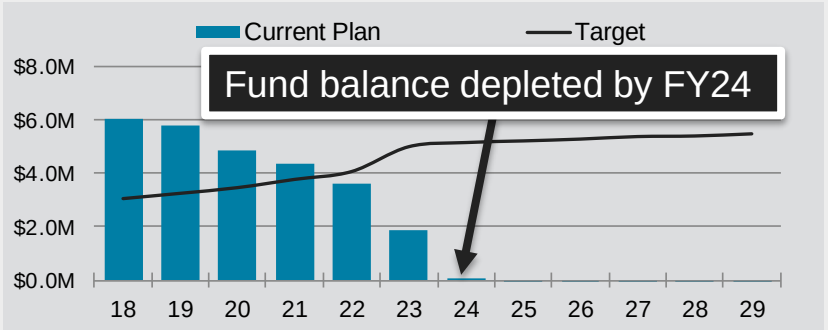
	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Sewer Rate Plan	0.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Debt Coverage	1.57	0.96	1.19	0.70	0.41	0.40	0.39	0.39	0.39	0.40	0.40
Single Family Bi-Monthly Sewer Bill	$138.92	$143.05	$147.35	$151.75	$156.32	$160.99	$165.83	$170.77	$175.88	$181.17	$186.64
Cost per Day	$2.32	$2.38	$2.46	$2.53	$2.61	$2.68	$2.76	$2.85	$2.93	$3.02	$3.11

FY 2023	FY 2028
15.89%	34.35%

Scenario Manager

Meals Tax Transfer $0

Operating Fund (Cash)



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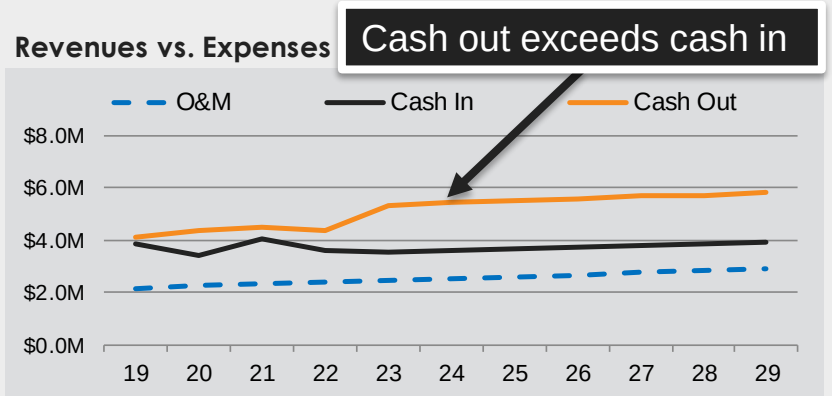

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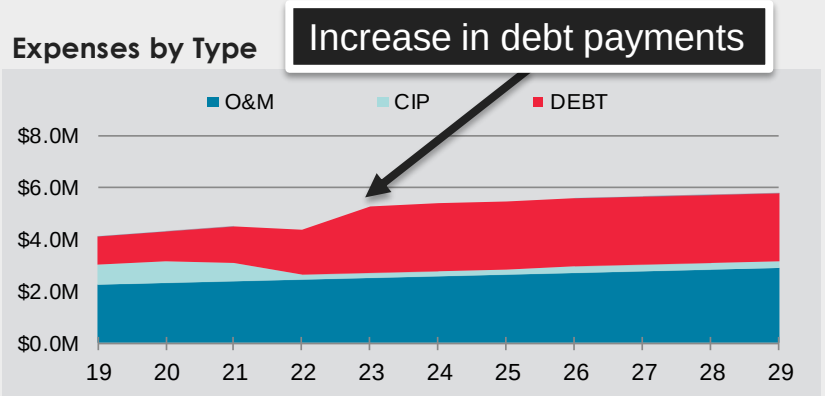

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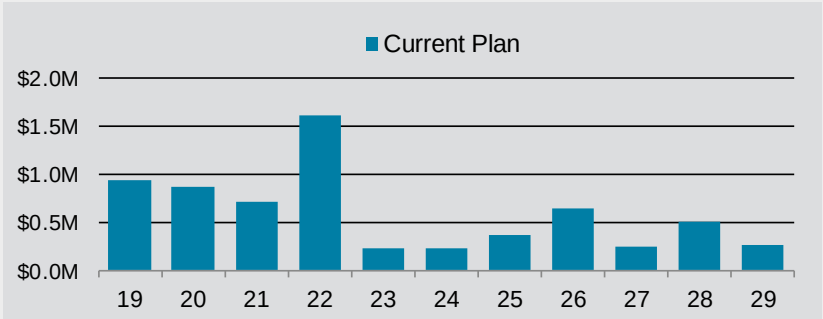

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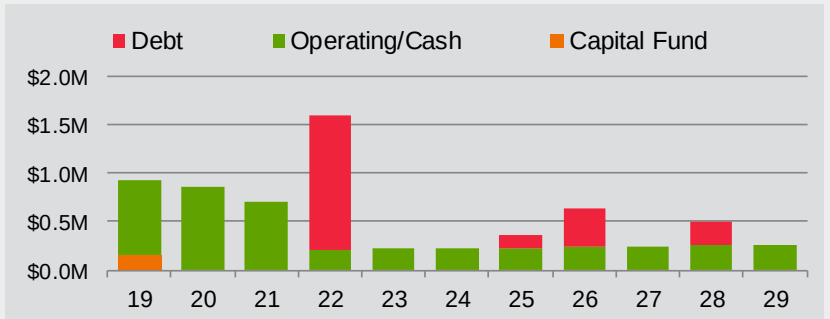

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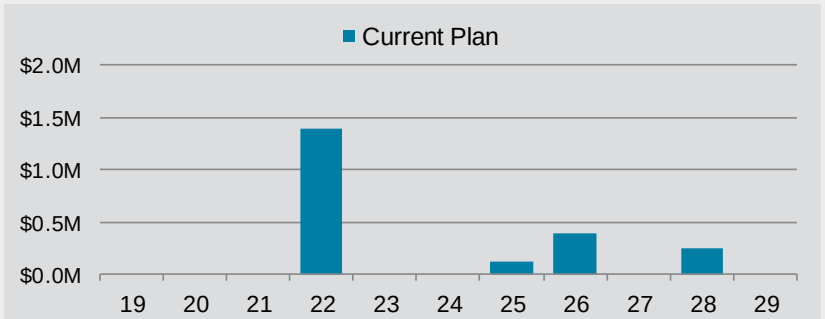


Sewer - Scenario 2: Level Increases

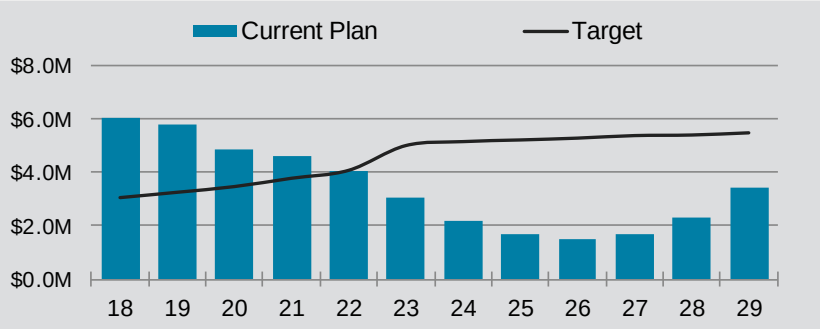
	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Sewer Rate Plan	0.00%	3.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
Debt Coverage	1.57	0.96	1.34	0.97	0.69	0.79	0.90	1.03	1.16	1.36	1.54
Single Family Bi-Monthly Sewer Bill	$138.92	$143.05	$157.40	$173.18	$190.49	$209.51	$230.49	$253.54	$278.92	$306.81	$337.48
Cost per Day	$2.32	$2.38	$2.62	$2.89	$3.17	$3.49	$3.84	$4.23	$4.65	$5.11	$5.62

FY 2023	FY 2028
50.81%	142.93%

Scenario Manager

Meals Tax Transfer	$0

Operating Fund (Cash)



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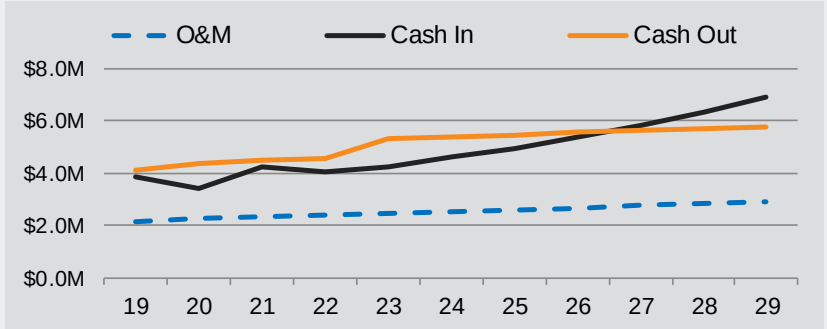

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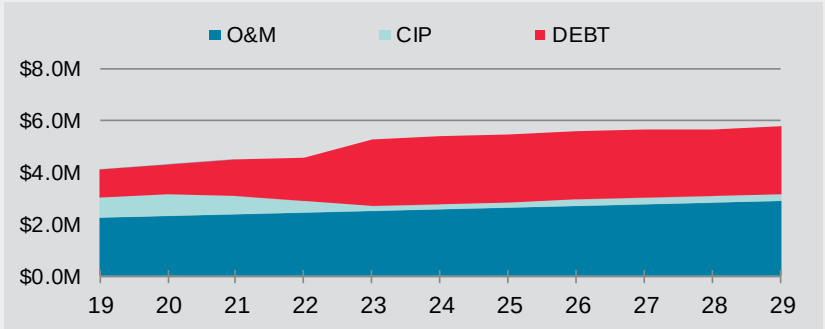

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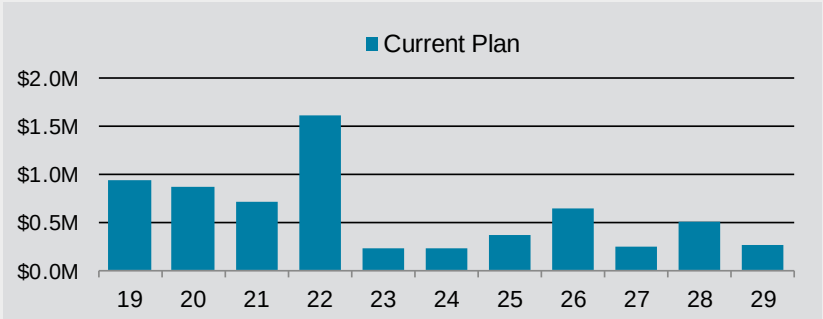

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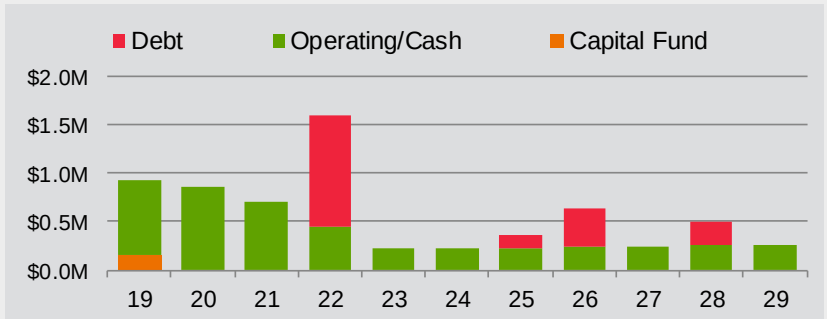

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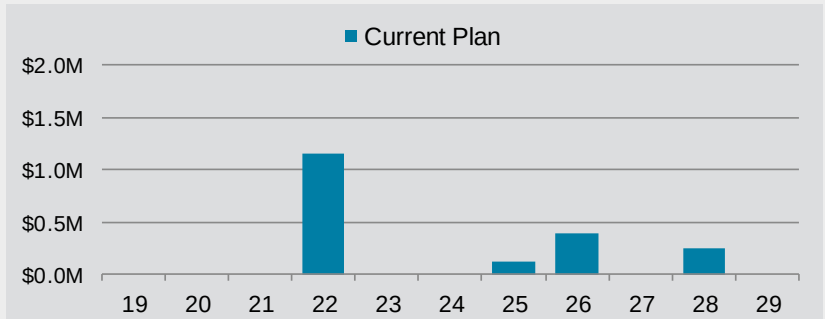


Sewer - Scenario 3: New $1.2 M Meals Tax (80% from non-residents)

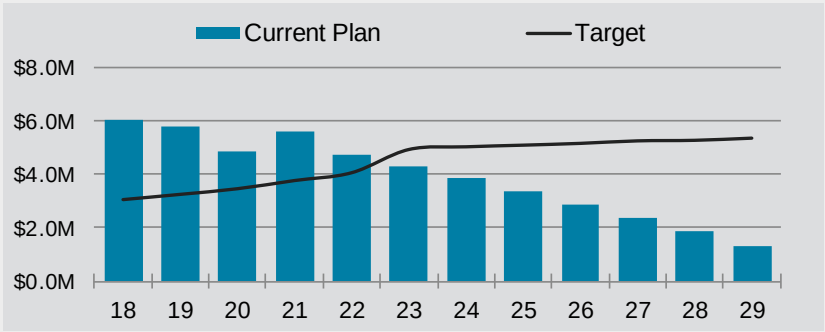
	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Sewer Rate Plan	0.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Debt Coverage	1.57	0.96	2.05	1.47	0.93	0.92	0.91	0.91	0.90	0.92	0.91
Single Family Bi-Monthly Sewer Bill	$138.92	$143.05	$147.35	$151.75	$156.32	$160.99	$165.83	$170.77	$175.88	$181.17	$186.64
Cost per Day	$2.32	$2.38	$2.46	$2.53	$2.61	$2.68	$2.76	$2.85	$2.93	$3.02	$3.11

FY 2023	FY 2028
15.89%	34.35%

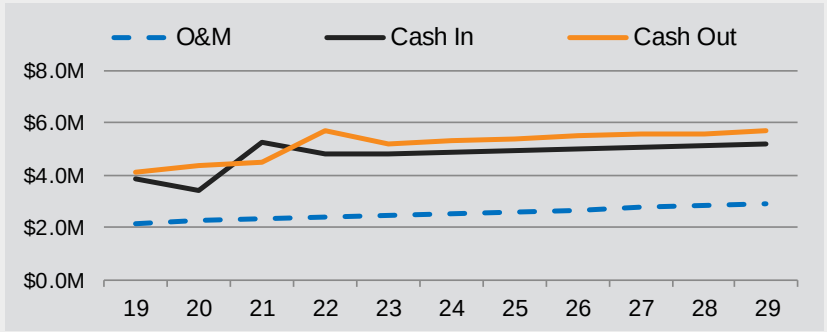
Scenario Manager

Meals Tax Transfer	$1,200,000

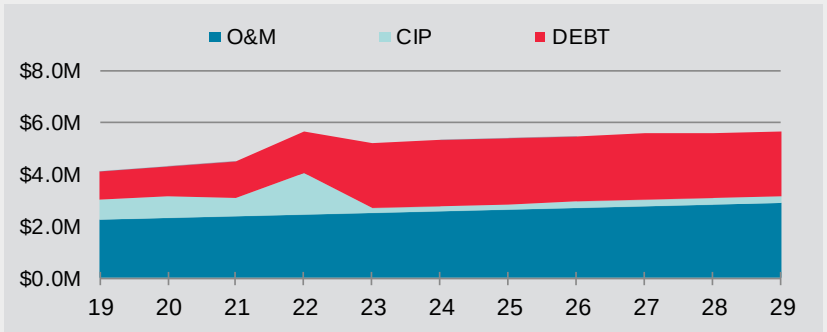
Operating Fund (Cash)



Revenues vs. Expenses



Expenses by Type



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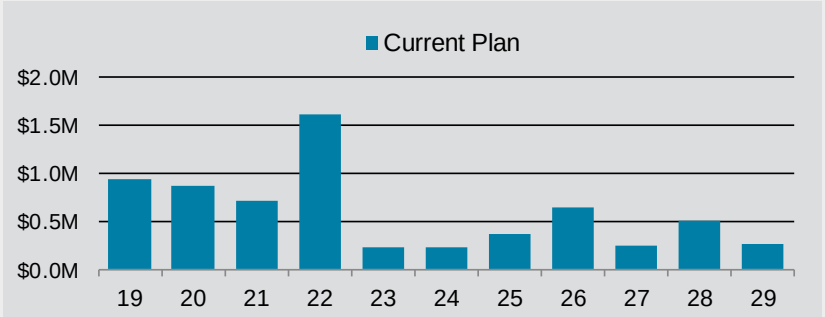

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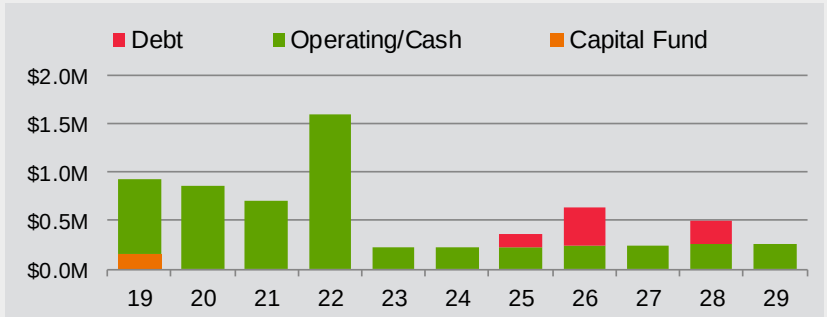

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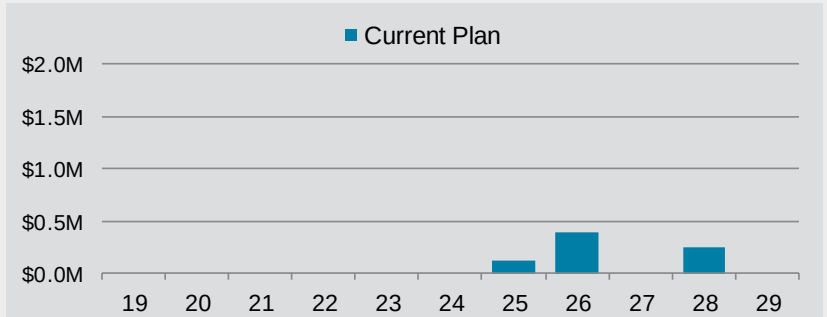

Chargeback Analysis

Chargeback Analysis

- Chargeback reflects services provided by the General Fund in support of Utility Funds
- Chargeback consists of allocation of personnel related expenditures
  - Salaries and benefits
- Stantec developed a chargeback allocation model and worked with Town staff to determine time spent by employee in support of utilities

Chargeback Results

Fund	FY 2020 Budget Chargeback	Full Cost Calculated Chargeback
Water	$493,226	$607,262
Sewer	$493,226	$637,480
Total	**$986,452**	**$1,244,742**

- The Town could justify a higher chargeback amount for the Water and Sewer Funds based on support provided by General Fund.
- At this time, the Utility Funds are not in a position to support additional expenditures related to the chargeback.