# THE TOWN OF BARNSTABLE

**Comprehensive Financial Advisory Committee**

**July 2026**

# CFAC Report: Updated CWMP Funding Model for FY2028-FY2031

## BACKGROUND

Barnstable's Comprehensive Wastewater Management Plan (CWMP) is the Town's most far-reaching and expensive infrastructure project, and its implementation presents a long-term financial challenge.

Including the FY27 approved sewer capital budget, the total expense for CWMP to date is $391 MM for 25 projects. To date, Barnstable's built-in sewer funding sources together with a General Fund subsidy have financed CWMP infrastructure projects.

However, the next four years, FY28-FY31, pose serious financial challenges as annual debt service grows to more than $15MM and annual program managements costs increases to $5MM by FY37.

Although the designated CWMP funding sources remain reliable, they will be unable to cover all the increased costs of future program implementation. CWMP requests FY28-FY31 are projected to be $281MM, and General Fund capital requests are projected to be $325MM.

Current revenue growth cannot sustain existing service levels, capital needs and the growing draw on the operating budget.

FY27-31 CWMP funding will require both continued reliability of available resources and new source(s) of funding.

To support future Town Council funding decisions for continued CWMP implementation, the Town's Finance Division, led by Director Mark Milne, developed an updated multivariate funding model to project available resources under varying assumptions, including inflation, revenue growth, economic cycles, and possible new revenue sources such as a debt exclusion or Water Infrastructure Investment Fund (WIIF).

In response to the Town Manager's request that CFAC report back on recommended fiscal policy by July 2026, CFAC submits this review of the updated CWMP funding model.

CFAC conducted an independent review of the updated funding model:

- Evaluated the funding model's ability to modify variables to indicate increases or decreases in available resources and expenses.
- Determined whether the assumptions of the Base Case include sustainable and viable present and future resources and expenses to support implementation of CWMP.

- Tested the functionality of the model variables to determine the outcomes of various assumption changes.
- Summarized CFAC's review of the updated funding model.

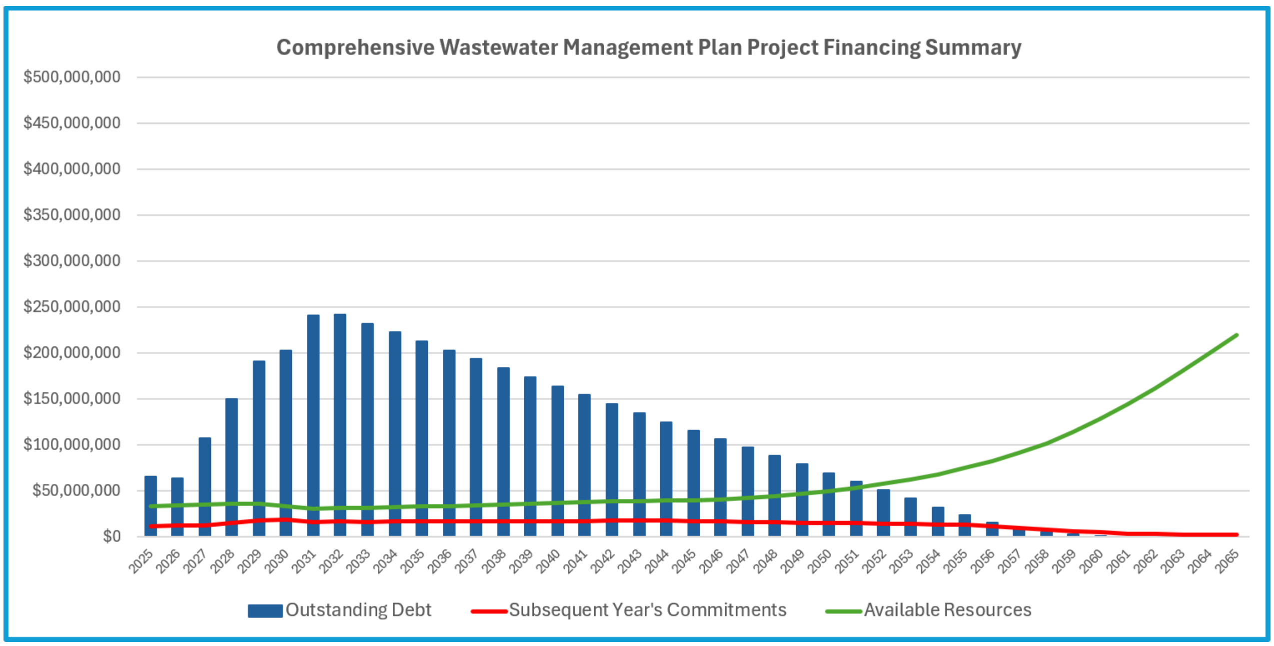
CFAC notes that this updated model evaluates funding for FY27-FY31 projects only. The model will require further adjustment for FY32 and beyond as the Town continues the buildout of its sewer system.

**FUNDING MODEL**

The updated funding model includes additional assumptions: loan borrowing rates, MCWT Disadvantaged Community subsidy, WIIF, Debt Exclusion, and addition of Cape Cod & Islands Water Protection Fund (CCIWPF) including the total subsidies by year.

The debt exclusion override and WIIF are important additions because they allow the model to show their impact on future revenue sources and their effects on available resources and financial commitments.

The chart below shows projected available annual resources and annual commitments from FY25-FY65. If there are no changes, outstanding debt, including all projects approved through FY27, will peak in FY 31 and FY32, and available resources remain greater than subsequent year's commitments.



## Base Case

The updated Base Case assumptions include dedicated resources created to fund CWMP, viable subsidy resources, income resources, and new resource options.

Recognizing current economic uncertainties, the updated CWMP funding model's projected annual increases of reliable revenue sources are more conservative than in the FY25 model.

| **Assumptions** | |
|---|---|
| **RESOURCE ASSUMPTIONS** | |
| Annual General Fund contribution | $5,750,000 |
| Investment rate of return | 2.00% |
| Avg annual % change-traditional lodging tax | 1.50% |
| Avg annual % change-meals tax | 1.50% |
| Avg annual % change-vacation rental tax | 1.50% |
| CCIWPF subsidy | 25.00% |
| MCWT Disadvantaged Community subsidy | 3.30% |
| % of new sewer utility revenue to CWMP | 50.00% |
| Annual sewer utility rate change | 5.00% |
| Sewer assessment cap | $10,000 |
| NE Wind contribution | 0 |
| Adoption of WIIF | 1, 2, or 3% |
| Approve debt exclusion | No/Yes |
| | |
| **EXPENSE ASSUMPTIONS** | |
| Annual CWMP staff salary change | 4.00% |
| Annual health insurance change | 8.00% |
| Annual retirement change | 5.30% |
| Annual change operating expenses | 2.00% |
| Annual design/construction cost inflation | 5.00% |
| Loan borrowing rate | 0.20% |

The chart on page 2 shows that available resources remain greater than annual commitments from FY27 to FY65.

If either a debt exclusion or WIIF is approved through a referendum in 2027, it will allow consideration of a gradual decrease of the annual $5,750,000 General Fund contribution, thereby providing additional funding for the operating budget.

## MODEL FUNCTIONALITY

CFAC tested the model variables for their ability to show changes in revenue and expenses when variables were modified individually and in combination with other variables.

*Evaluated whether the assumptions included important factors that affect resources and commitments.
*Tested the model by changing variables to determine resulting modifications in resources, commitments, and cash flows.
*Determined the accuracy of links between formula cells.

The funding model was determined to be well-built with a high level of reliable functionality. Extensive testing of changes to single and multiple variables produced their impact on resources and commitments. The variables allowed easy and fast modifications.

CFAC tested all assumptions by increasing each variable to determine its impact on risk. In general, decreases in resources or increases in expenses increase risk, while increases in resources or decreases in expenses decrease risk. For example, an increase in health insurance costs would increase the risk that the Town will need to provide additional funding. Conversely, adoption of a 2% WIIF or a debt exclusion override would have a major impact on decreasing risk.

The table below demonstrates the risk level when individual variables are increased.

| Assumptions | | Impact of an increase |
|---|---|---|
| **RESOURCE ASSUMPTIONS** | | |
| Annual General Fund contribution | $5,750,000 | Decrease risk |
| Investment rate of return | 2.00% | Decrease risk |
| Avg annual % change-traditional lodging tax | 1.50% | Decrease risk |
| Avg annual % change-meals tax | 1.50% | Decrease risk |
| Avg annual % change-vacation rental tax | 1.50% | Decrease risk |
| CCIWPF subsidy | 25.00% | No changes possible |
| MCWT Disadvantaged Community subsidy | 3.30% | No changes possible |
| % of new sewer utility revenue to CWMP | 50.00% | Decrease risk |
| Annual sewer utility rate change | 5.00% | Decrease risk |
| Sewer assessment cap | $10,000 | Decrease risk |
| NE Wind contribution | 0 | |
| Adoption of WIIF | 1, 2, or 3.% | Decrease risk |
| Approve debt exclusion | Yes | Decrease risk |
| | | |
| **EXPENSE ASSUMPTIONS** | | |
| Annual salary changes for CWMP staff | 4.00% | Increase risk |
| Annual health insurance change | 8.00% | Increase risk |
| Annual retirement change | 5.30% | Increase risk |
| Annual change operating expenses | 2.00% | Increase risk |
| Annual design/construction cost inflation | 5.00% | Increase risk |
| Loan borrowing rate | 0.20% | Increase risk |

## Examples of Funding Options

CFAC identified two assumptions that would have the greatest influence on CWMP funding: WIIF and the debt exclusion. The charts below show the different scenarios and their impact on resources, commitments, and other variables.

**Comparison of WIIF and debt exclusion**

***WIIF** is a special revenue fund with a dedicated surcharge solely on real estate taxes. The source of revenue is a property tax surcharge of up to 3%. It does not apply to personal property tax. It may be appropriated and spent on maintenance, improvements and investments to municipal drinking water, wastewater, and stormwater infrastructure assets.

WIIF is approved through a referendum. After the legislative body accepts G.L. c. 40, § 39M and approves the amount of the surcharge, the acceptance question must be placed before the voters at the next regularly scheduled municipal or state election. If approved, it must be in place for a minimum of three years. It requires a ballot initiative to remove it.

Impact on taxpayers: The surcharge is first assessed for the fiscal year that begins on the July 1 after acceptance, unless the town designates a later year in its acceptance. The tax is permanent unless a subsequent ballot initiative is approved to remove it.

***Debt exclusion** is limited to capital expenditures. It lasts only for the life of the borrowing. Debt exclusion is approved through a referendum. A debt exclusion would include funding all the debt service on loans for FY28-31 projects. Debt service includes all principal and interest payments on loans issued to finance construction. The debt service on the loans would be excluded from Proposition 2 ½ tax limit increase.

Impact on taxpayers: The tax impact begins when the related debt service is added to the tax levy. The tax is removed when the debt is repaid.

## CWMP Timeline Example

May 2027 (FY27)

Town Council approves funding for FY28 project and authorizes borrowing to finance project.

June 2028 (FY28)

Town enters into a contract to construct authorized project authorized in FY27.

Fall 2028 (FY29)

Construction begins, and the Town enters into an interim loan agreement with State Revolving Loan Fund at 0% to finance construction.

FY30 and FY31

Project construction continues, with construction costs covered by interim loan.

FY32

State Revolving Loan Fund interim loan is converted to long term loan in January/February 2032.

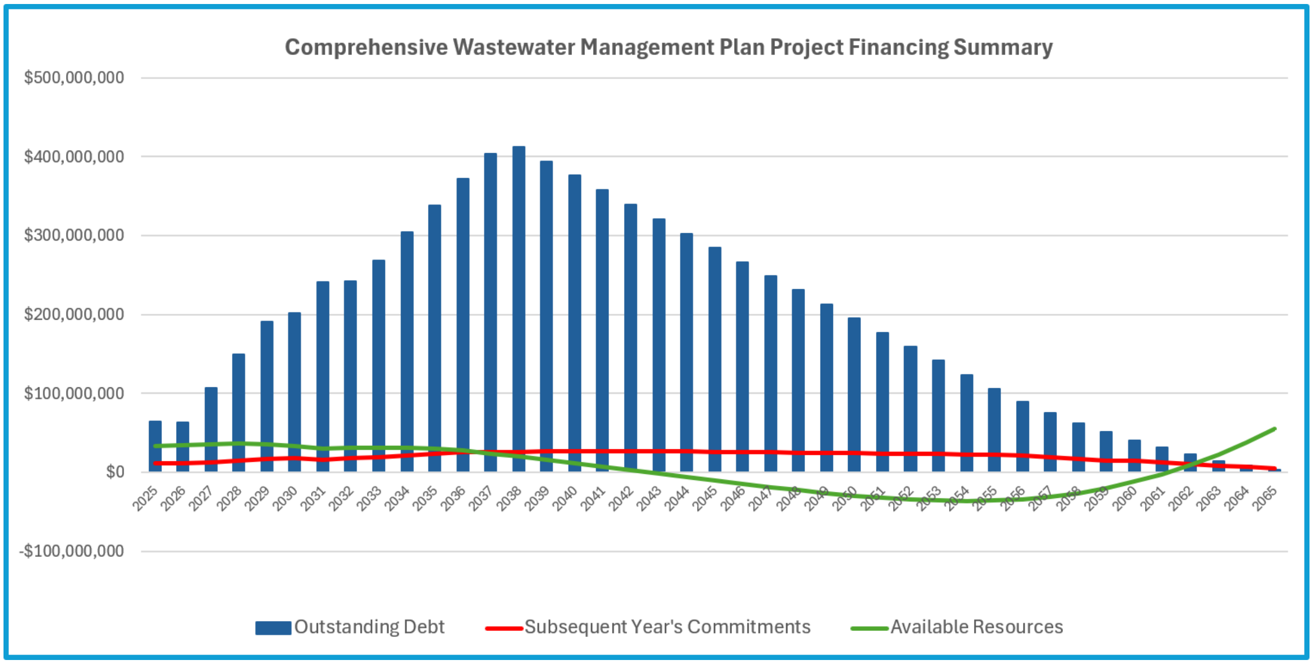
FY33

First loan payment due on the long term loan with State, and the loan payment added to FY33 tax levy.

Estimated taxes: $14/quarter for median residential exemption homes; $25/quarter for median non-residential exemption homes.

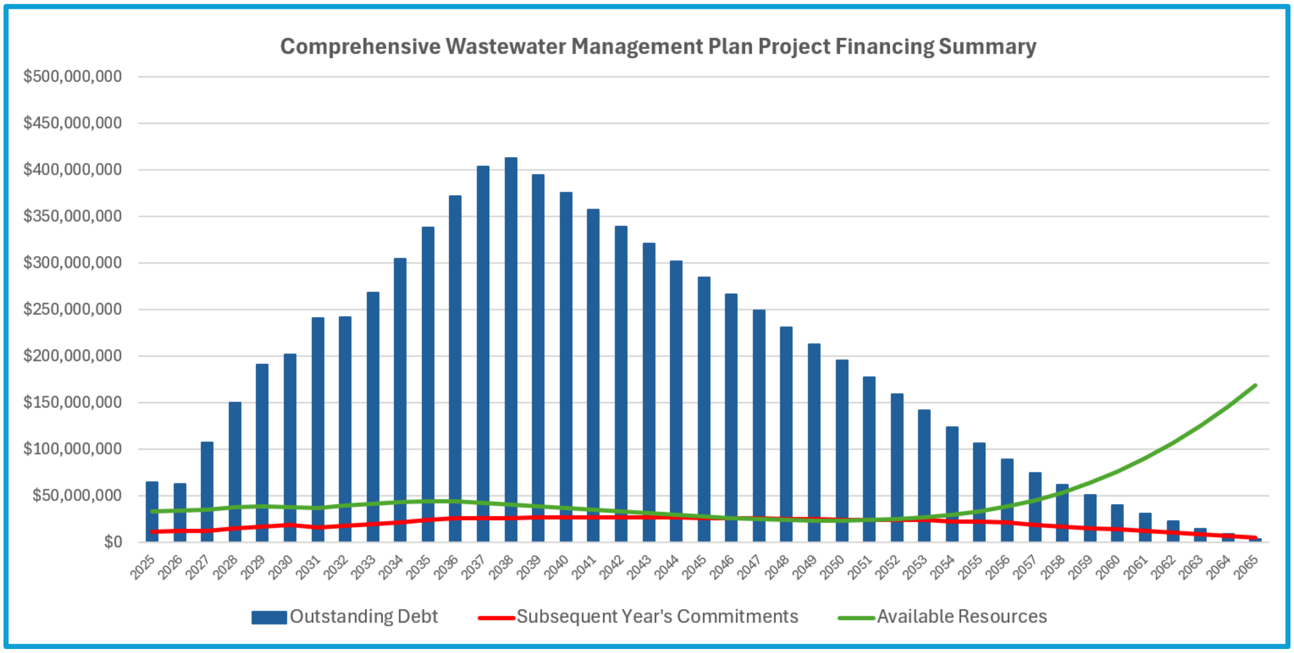
The CWMP Funding model produced debt exclusion, WIIF funding options.
See Appendix for the tax impact on median households.

## No Debt Exclusion, no WIIF
## Includes projects costs FY27-31



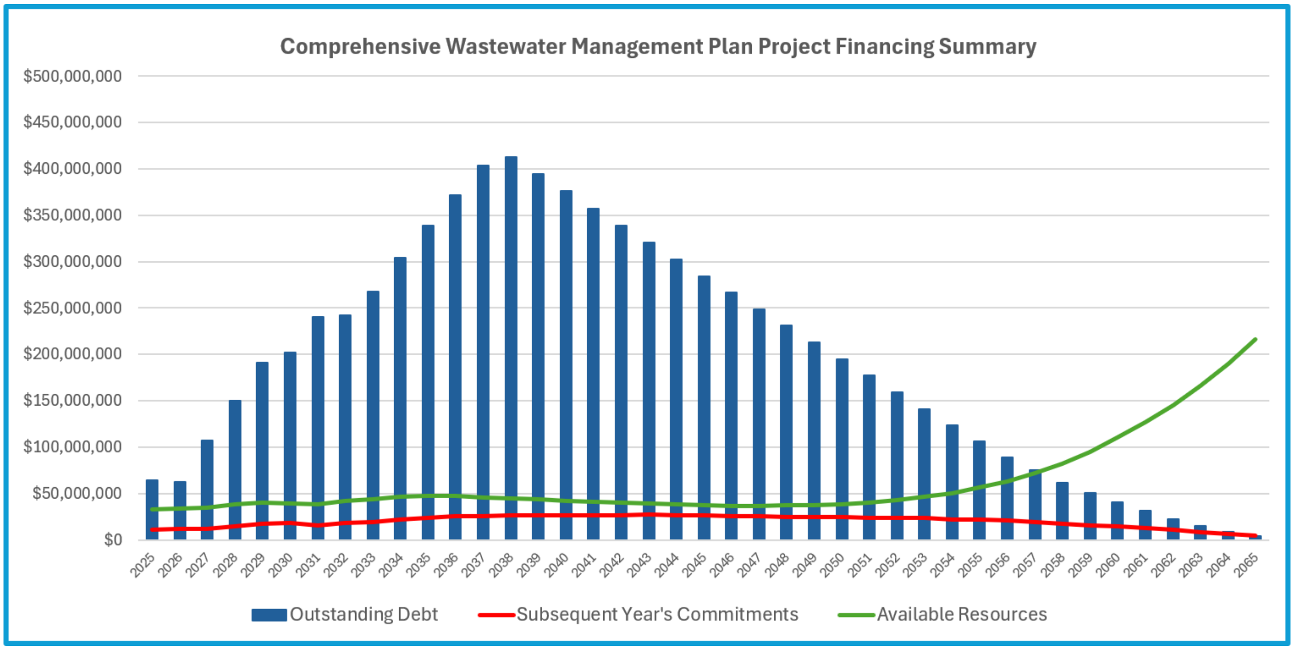

The chart above illustrates that authorizing all CWMP projects submitted for FY27 through FY31 with no additional funding source provided results in deficits occurring beginning in fiscal year 2037.

**No Debt Exclusion, 1% WIIF**
**Includes FY27-31 project costs**



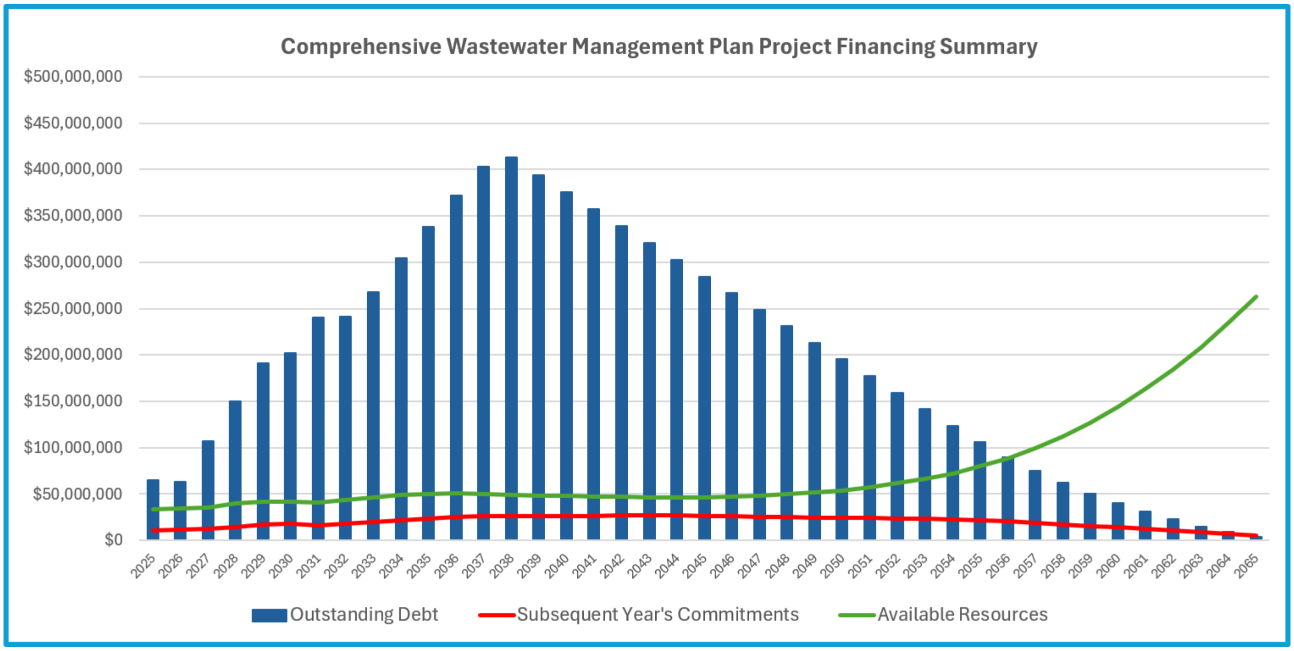

This chart illustrates that a 1% WIIF does not create sufficient revenue to fund all projects for FY27 thorough FY31. Available resources carry the program through FY46 and then deficits occur for the next five years.

## No Debt Exclusion, 2% WIIF
## Includes FY27-31 project costs



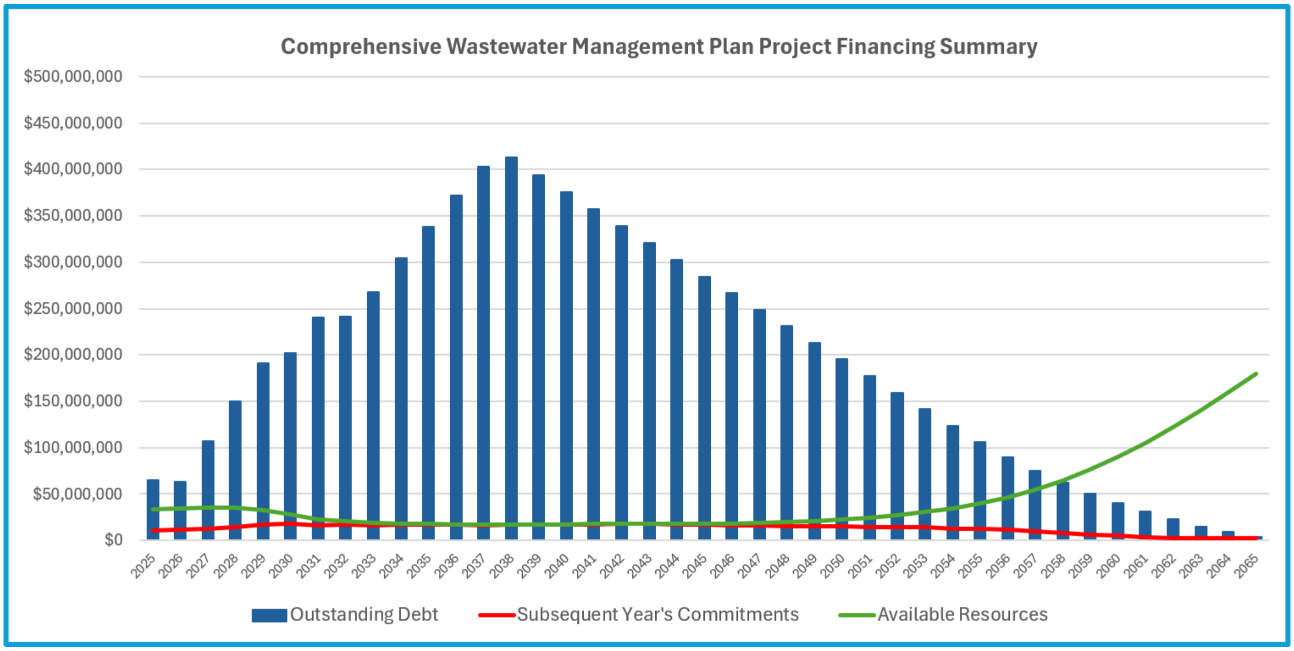

This chart illustrates that a 2% WIIF would provide enough resources to fund all projects for FY27 to FY31 and could reduce the current General Fund contribution from $5,750,000 to $4,250,000; redirecting a total of $1,500,000 back to the operating budget.

## No Debt Exclusion, 3% WIIF
## Includes FY27-31 project costs



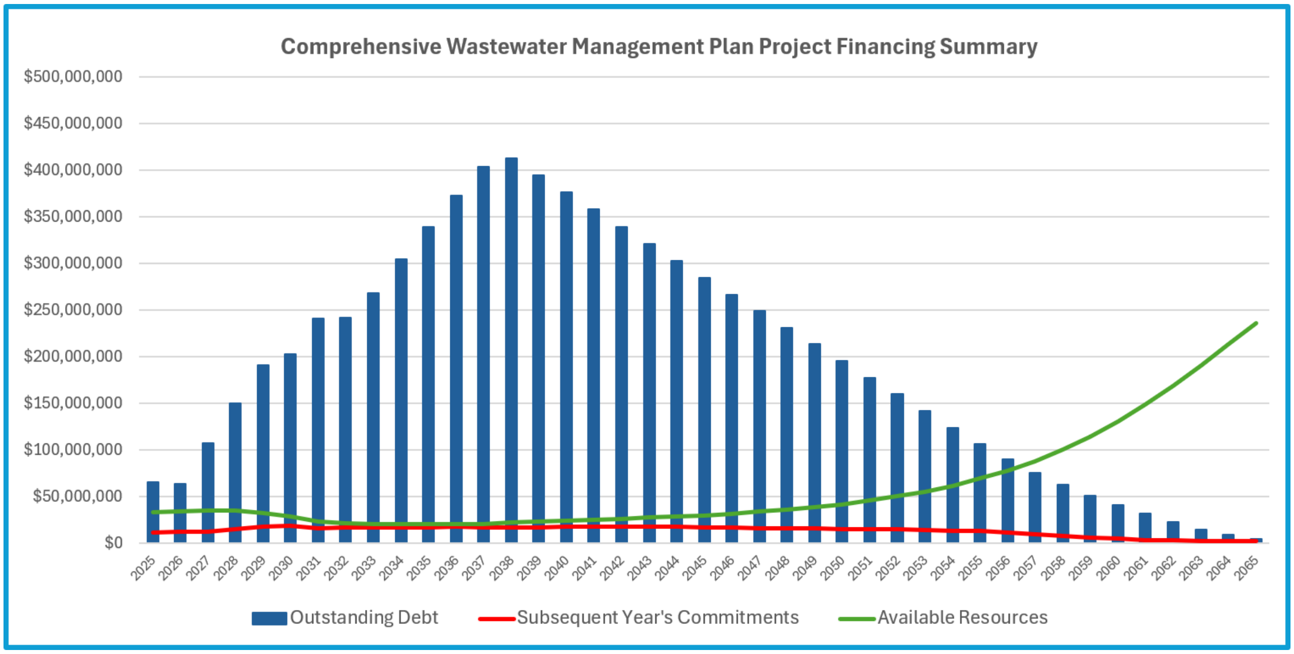

This chart illustrates that a 3% WIIF would provide enough resources to fund all projects for FY27 to FY31 and could reduce the current General Fund contribution from $5,750,000 to $2,750,000; redirecting a total of $3,000,000 back to the operating budget.

## Yes Debt Exclusion, no WIIF
## Includes FY27-31 project costs



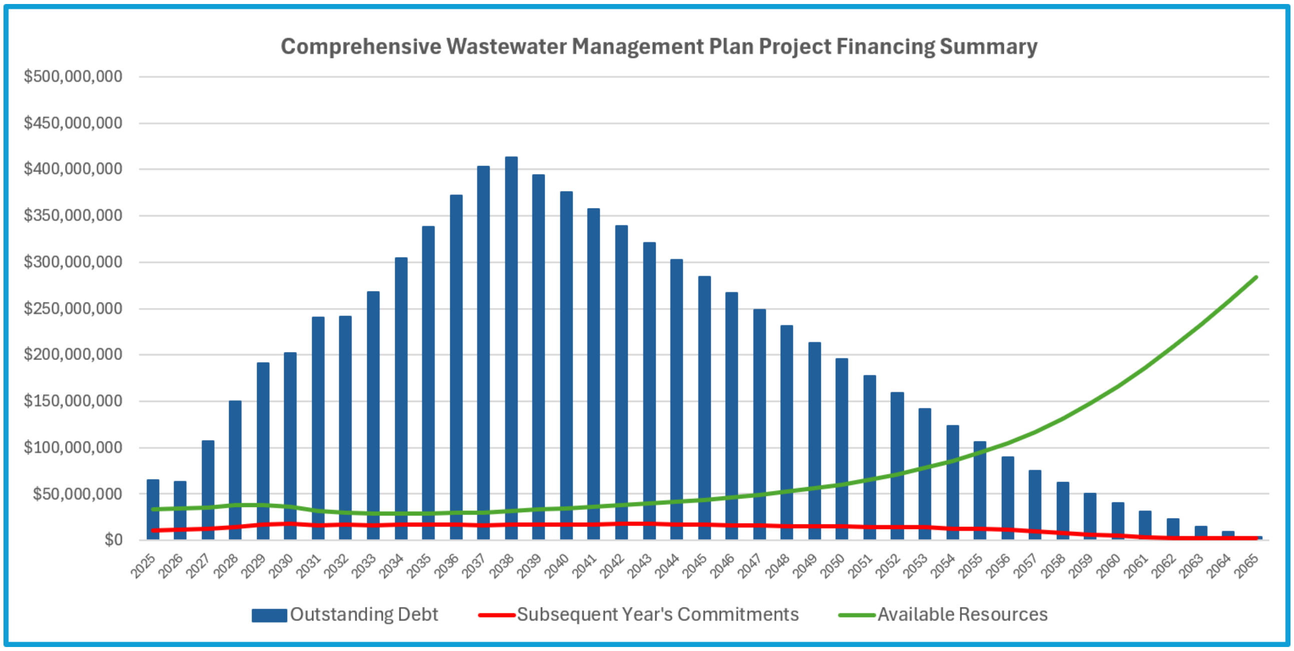

This chart illustrates a debt exclusion approved for the FY28 to FY31 projects which would in turn reduce the current General Fund contribution by $2,750,000, redirecting this amount back to the operating budget.

**Yes Debt Exclusion, 1% WIIF**
**Includes FY27-31 project costs**




This chart illustrates a debt exclusion approved for the FY28 to FY31 projects as well as a 1% WIIF which would in turn reduce the current General Fund contribution by $4,000,000, redirecting this amount back to the operating budget.

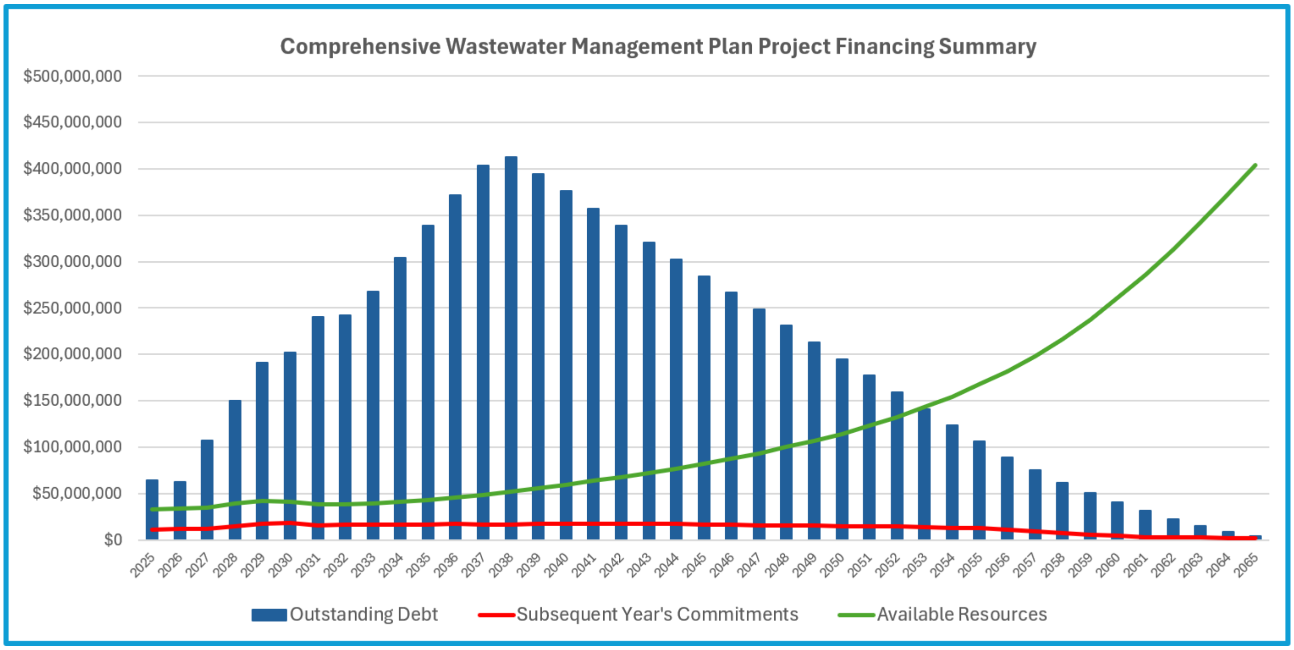
## Yes Debt Exclusion, 2% WIIF
## Includes FY27-31 project costs




This chart illustrates a debt exclusion approved for the FY28 to FY31 projects as well as a 2% WIIF which would in turn reduce the current General Fund contribution by $5,750,000, redirecting this amount back to the operating budget.

## Yes Debt Exclusion, 3% WIIF
## Includes FY27-31 project costs

**Excess resources allow decreased General Fund CWMP contribution and increased funds for the operating budget of $5,750,000 and creates funding for projects beyond FY31**




This chart illustrates a debt exclusion approved for the FY28 to FY31 projects as well as a 3% WIIF which would in turn eliminate the current General Fund contribution by $5,750,000, redirecting this amount back to the operating budget.

## CONCLUSION

The updated CWMP funding model reflects current economic circumstances by using more conservative estimates of the annual increases of the constant resources and by increasing operating expenses. These real-world revisions allow more reliable projections of resources and commitments.

CFAC's testing of every variable demonstrated the model's functionality and reliable ability to predict changes to resources and expenses. The model is a valuable tool that will help Town Council's decision about funding options for the current five-year cycle.

CFAC notes that the updated model evaluates only the FY27-FY31 CWMP projects. Sewer infrastructure projects will continue beyond FY32. As CWMP progresses, future models will need to respond to changes in the economy, inflation, income and expense assumptions, progress of CWMP, and the Town's financial strength.

The model showed that referendum approval of either the debt exclusion or WIIF would provide necessary funding for FY28-FY31 projects. This would allow the General Fund contribution to be reduced each year for the next four years, providing additional funding to Town's much needed operating budget. Depending upon the WIIF percentage adopted and if its done in conjunction with a debt exclusion override would determine the amount of General Fund support that could be redirected back to the operating budget.

CFAC welcomes the opportunity to review future CWMP funding models. Regular updates to variables and analyses will maintain the model's relevance and strengthen its value as a financial planning tool.

CFAC extends its appreciation to Finance Director Mark Milne for his invaluable assistance with this review.

# APPENDIX

## ESTIMATED ANNUAL TAX BILL IMPACTS ON MEDIAN HOUSEHOLDS

## 1% Water Infrastructure Investment Fund (WIIF) Tax Bill Impact

| | | Qualifying | Non-qualifying |
|---|---|---|---|
| FY28 | Year 1 WIIF Tax | $ 24.36 | $ 43.04 |
| FY29 | Year 2 | $ 25.21 | $ 44.55 |
| FY30 | Year 3 | $ 26.09 | $ 46.11 |
| FY31 | Year 4 | $ 27.01 | $ 47.72 |
| FY32 | Year 5 | $ 27.95 | $ 49.39 |
| FY33 | Year 6 | $ 28.93 | $ 51.12 |
| FY34 | Year 7 | $ 29.94 | $ 52.91 |
| FY35 | Year 8 | $ 30.99 | $ 54.76 |
| FY36 | Year 9 | $ 32.08 | $ 56.68 |
| FY37 | Year 10 | $ 33.20 | $ 58.66 |
| FY38 | Year 11 | $ 34.36 | $ 60.72 |
| FY39 | Year 12 | $ 35.56 | $ 62.84 |
| FY40 | Year 13 | $ 36.81 | $ 65.04 |
| FY41 | Year 14 | $ 38.10 | $ 67.32 |
| FY42 | Year 15 | $ 39.43 | $ 69.68 |
| FY43 | Year 16 | $ 40.81 | $ 72.11 |
| FY44 | Year 17 | $ 42.24 | $ 74.64 |
| FY45 | Year 18 | $ 43.72 | $ 77.25 |
| FY46 | Year 19 | $ 45.25 | $ 79.95 |
| FY47 | Year 20 | $ 46.83 | $ 82.75 |
| FY48 | Year 21 | $ 48.47 | $ 85.65 |
| FY49 | Year 22 | $ 50.16 | $ 88.65 |
| FY50 | Year 23 | $ 51.92 | $ 91.75 |
| FY51 | Year 24 | $ 53.74 | $ 94.96 |
| FY52 | Year 25 | $ 55.62 | $ 98.28 |
| FY53 | Year 26 | $ 57.57 | $ 101.72 |
| FY54 | Year 27 | $ 59.58 | $ 105.28 |
| FY55 | Year 28 | $ 61.67 | $ 108.97 |
| FY56 | Year 29 | $ 63.82 | $ 112.78 |
| FY57 | Year 30 | $ 66.06 | $ 116.73 |
| FY58 | Year 31 | $ 68.37 | $ 120.82 |
| FY59 | Year 32 | $ 70.76 | $ 125.04 |
| FY60 | Year 33 | $ 73.24 | $ 129.42 |
| FY61 | Year 34 | $ 75.80 | $ 133.95 |
| FY62 | Year 35 | $ 78.46 | $ 138.64 |
| FY63 | Year 36 | $ 81.20 | $ 143.49 |
| FY64 | Year 37 | $ 84.04 | $ 148.51 |
| FY65 | Year 38 | $ 86.98 | $ 153.71 |
| FY66 | Year 39 | $ 90.03 | $ 159.09 |
| FY67 | Year 40 | $ 93.18 | $ 164.66 |

## 2% Water Infrastructure Investment Fund (WIIF) Tax Bill Impact

| | | Qualifying | Non-qualifying |
|---|---|---|---|
| FY28 | Year 1 WIIF Tax | $ 48.72 | $ 86.09 |
| FY29 | Year 2 | $ 50.42 | $ 89.10 |
| FY30 | Year 3 | $ 52.19 | $ 92.22 |
| FY31 | Year 4 | $ 54.01 | $ 95.45 |
| FY32 | Year 5 | $ 55.90 | $ 98.79 |
| FY33 | Year 6 | $ 57.86 | $ 102.25 |
| FY34 | Year 7 | $ 59.89 | $ 105.82 |
| FY35 | Year 8 | $ 61.98 | $ 109.53 |
| FY36 | Year 9 | $ 64.15 | $ 113.36 |
| FY37 | Year 10 | $ 66.40 | $ 117.33 |
| FY38 | Year 11 | $ 68.72 | $ 121.44 |
| FY39 | Year 12 | $ 71.13 | $ 125.69 |
| FY40 | Year 13 | $ 73.61 | $ 130.08 |
| FY41 | Year 14 | $ 76.19 | $ 134.64 |
| FY42 | Year 15 | $ 78.86 | $ 139.35 |
| FY43 | Year 16 | $ 81.62 | $ 144.23 |
| FY44 | Year 17 | $ 84.47 | $ 149.28 |
| FY45 | Year 18 | $ 87.43 | $ 154.50 |
| FY46 | Year 19 | $ 90.49 | $ 159.91 |
| FY47 | Year 20 | $ 93.66 | $ 165.50 |
| FY48 | Year 21 | $ 96.94 | $ 171.30 |
| FY49 | Year 22 | $ 100.33 | $ 177.29 |
| FY50 | Year 23 | $ 103.84 | $ 183.50 |
| FY51 | Year 24 | $ 107.48 | $ 189.92 |
| FY52 | Year 25 | $ 111.24 | $ 196.57 |
| FY53 | Year 26 | $ 115.13 | $ 203.45 |
| FY54 | Year 27 | $ 119.16 | $ 210.57 |
| FY55 | Year 28 | $ 123.33 | $ 217.94 |
| FY56 | Year 29 | $ 127.65 | $ 225.57 |
| FY57 | Year 30 | $ 132.11 | $ 233.46 |
| FY58 | Year 31 | $ 136.74 | $ 241.63 |
| FY59 | Year 32 | $ 141.52 | $ 250.09 |
| FY60 | Year 33 | $ 146.48 | $ 258.84 |
| FY61 | Year 34 | $ 151.60 | $ 267.90 |
| FY62 | Year 35 | $ 156.91 | $ 277.28 |
| FY63 | Year 36 | $ 162.40 | $ 286.98 |
| FY64 | Year 37 | $ 168.09 | $ 297.03 |
| FY65 | Year 38 | $ 173.97 | $ 307.42 |
| FY66 | Year 39 | $ 180.06 | $ 318.18 |
| FY67 | Year 40 | $ 186.36 | $ 329.32 |

### 3% Water Infrastructure Investment Fund (WIIF) Tax Bill Impact

| | | Qualifying | Non-qualifying |
|---|---|---|---|
| FY28 | Year 1 WIIF Tax | $ 73.08 | $ 129.13 |
| FY29 | Year 2 | $ 75.63 | $ 133.65 |
| FY30 | Year 3 | $ 78.28 | $ 138.33 |
| FY31 | Year 4 | $ 81.02 | $ 143.17 |
| FY32 | Year 5 | $ 83.86 | $ 148.18 |
| FY33 | Year 6 | $ 86.79 | $ 153.37 |
| FY34 | Year 7 | $ 89.83 | $ 158.74 |
| FY35 | Year 8 | $ 92.97 | $ 164.29 |
| FY36 | Year 9 | $ 96.23 | $ 170.04 |
| FY37 | Year 10 | $ 99.59 | $ 175.99 |
| FY38 | Year 11 | $ 103.08 | $ 182.15 |
| FY39 | Year 12 | $ 106.69 | $ 188.53 |
| FY40 | Year 13 | $ 110.42 | $ 195.13 |
| FY41 | Year 14 | $ 114.29 | $ 201.96 |
| FY42 | Year 15 | $ 118.29 | $ 209.03 |
| FY43 | Year 16 | $ 122.43 | $ 216.34 |
| FY44 | Year 17 | $ 126.71 | $ 223.91 |
| FY45 | Year 18 | $ 131.15 | $ 231.75 |
| FY46 | Year 19 | $ 135.74 | $ 239.86 |
| FY47 | Year 20 | $ 140.49 | $ 248.26 |
| FY48 | Year 21 | $ 145.40 | $ 256.95 |
| FY49 | Year 22 | $ 150.49 | $ 265.94 |
| FY50 | Year 23 | $ 155.76 | $ 275.25 |
| FY51 | Year 24 | $ 161.21 | $ 284.88 |
| FY52 | Year 25 | $ 166.86 | $ 294.85 |
| FY53 | Year 26 | $ 172.70 | $ 305.17 |
| FY54 | Year 27 | $ 178.74 | $ 315.85 |
| FY55 | Year 28 | $ 185.00 | $ 326.91 |
| FY56 | Year 29 | $ 191.47 | $ 338.35 |
| FY57 | Year 30 | $ 198.17 | $ 350.19 |
| FY58 | Year 31 | $ 205.11 | $ 362.45 |
| FY59 | Year 32 | $ 212.29 | $ 375.13 |
| FY60 | Year 33 | $ 219.72 | $ 388.26 |
| FY61 | Year 34 | $ 227.41 | $ 401.85 |
| FY62 | Year 35 | $ 235.37 | $ 415.92 |
| FY63 | Year 36 | $ 243.60 | $ 430.47 |
| FY64 | Year 37 | $ 252.13 | $ 445.54 |
| FY65 | Year 38 | $ 260.95 | $ 461.13 |
| FY66 | Year 39 | $ 270.09 | $ 477.27 |
| FY67 | Year 40 | $ 279.54 | $ 493.98 |

**Debt Exclusion Estimated Annual Tax Bill Impact - Includes FY28 Through FY31 projects**

| | Tax Bill Impact - Q | Tax Bill Impact - NQ |
|---|---|---|
| FY28 | $ - | $ - |
| FY29 | $ - | $ - |
| FY30 | $ - | $ - |
| FY31 | $ - | $ - |
| FY32 | $ - | $ - |
| FY33 | $ 14.05 | $ 24.82 |
| FY34 | $ 32.18 | $ 56.87 |
| FY35 | $ 50.32 | $ 88.92 |
| FY36 | $ 68.46 | $ 120.97 |
| FY37 | $ 86.60 | $ 153.02 |
| FY38 | $ 96.97 | $ 171.35 |
| FY39 | $ 96.97 | $ 171.35 |
| FY40 | $ 96.97 | $ 171.35 |
| FY41 | $ 96.97 | $ 171.35 |
| FY42 | $ 96.97 | $ 171.35 |
| FY43 | $ 96.97 | $ 171.35 |
| FY44 | $ 96.97 | $ 171.35 |
| FY45 | $ 96.97 | $ 171.35 |
| FY46 | $ 96.97 | $ 171.35 |
| FY47 | $ 96.97 | $ 171.35 |
| FY48 | $ 96.97 | $ 171.35 |
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| FY56 | $ 96.97 | $ 171.35 |
| FY57 | $ 96.97 | $ 171.35 |
| FY58 | $ 96.97 | $ 171.35 |
| FY59 | $ 96.97 | $ 171.35 |
| FY60 | $ 96.97 | $ 171.35 |
| FY61 | $ 96.97 | $ 171.35 |
| FY62 | $ 96.97 | $ 171.35 |
| FY63 | $ 82.92 | $ 146.53 |
| FY64 | $ 64.79 | $ 114.48 |
| FY65 | $ 46.65 | $ 82.43 |
| FY66 | $ 28.51 | $ 50.38 |
| FY67 | $ 10.37 | $ 18.33 |