## Prepared for:

## BEDFORD COUNTY PUBLIC SERVICE AUTHORITY

## Prepared By:

MORGAN KEEGAN<br>951 East Byrd Street<br>Richmond, Virginia 23219<br>(804) 225-1100

DECEMBER 13, 2011

# FINANCIAL IMPACT STUDY OF FUTURE CAPITAL PROJECTS 

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## BEDFORD COUNTY PUBLIC SERVICE AUTHORITY

Financial Impact Study of Future Capital Projects

## I. Report Objectives

The purpose of the study is to determine the financial impact of undertaking a large capital project on the Authority's water rates over time. Some of the questions that are addressed in this study include the following:

- How does building the large capital project compare to utilizing the existing arrangement of purchasing water from the City of Lynchburg?
- If the Authority is to build the new facility, when should it do so, and should the Authority consider phasing the project?
- What are the important assumptions that need to be considered?

This report will show the assumptions used in a financial model that was created to assist the Authority in its decision making process. The report will also discuss four cases that were created using the financial model; the costs used for each of these four cases were derived from a Preliminary Engineering Report prepared by Anderson \& Associates titled "Lakes - Bedford - Forest Water Supply Evaluation" dated June 10, 2011 ("PER"). The four cases analyzed in this financial report are:

- Case I-Continue purchasing water from the City of Lynchburg and build an $\$ 8.5$ million waterline project from Forest to Bedford City.
- Case II- Build a $\$ 33.9$ million facility in one phase to bring water from Smith Mountain Lake to Bedford City and to Forest. This project would be financed in 2014.
- Case III- Build a $\$ 33.9$ million facility in three phases to bring water from Smith Mountain Lake to Bedford City and to Forest. The phased approach would have $\$ 24.0$ million of project costs bond financed in 2014, $\$ 5.0$ million bond financed in 2024 and $\$ 4.9$ million bond financed in 2034.
- Case IV- Build a $\$ 33.9$ million facility in three phases to bring water from Smith Mountain Lake to Bedford City and to Forest. The phased approach would have $\$ 24.0$ million of project costs bond financed in 2014, $\$ 5.0$ million bond financed in 2024 and $\$ 4.9$ million bond financed in 2034. This case also excludes all projected revenue and debt service associated with the City Reversion Agreement. This also excludes the debt service for the $\$ 8.5$ million water line from Forest to Bedford City when comparing Case I to Case IV.

This report will show each of these cases and their impact on the projected water rates and the projected pro-forma budget of the new Authority. Once the cases have been depicted, the report will summarize the financing results for the various cases and come to a conclusion on the most prudent course of action for the Authority to take when considering the financial impact of future capital projects.

## II. Assumptions

We utilized a financial model to depict the impact of several alternatives for supplying water to the Authority's customers. In this model there were a variety of assumptions made to assist the Authority in its decision making. These assumptions include:

## Operational Assumptions

The financing model utilized several operational assumptions regarding the timing of future cash flows and changes in operations. We used the Authority's Fiscal Year 2012 budget as the basis for the financial model. We also utilized Bedford City's Fiscal Year 2012 budget for the Water \& Sewer Fund Revenue and Expenditures as the basis of the City's operations. For Cases I-III, we have assumed that these two operations would be incorporated into a single new Authority once the Reversion Agreement takes effect in FY 2014. We have assumed there would be a net pro-forma surplus from the City's operations of approximately $\$ 630,000$ per fiscal year prior to paying debt service. The new Authority would also pay approximately $\$ 1.0$ million in debt service for FY 2012, declining to \$635,000 by FY 2026. For Case IV, we have assumed that the two operations would not be incorporated into a single new Authority. We have assumed there would not be any additional revenues from the City's operations and the Authority would not be paying the City's water and sewer fund debt service. We have also assumed that Bedford County would continue with its' approximately $\$ 1$ million annual contributions for debt service for each of the Series 2005 and Series 2009B Virginia Resources Authority Bonds. The operational assumptions in the model include:

- Base year for the model was the Authority's FY 2012 budget and Bedford City's FY 2012 budget for the Water and Sewer Fund.
- The City of Bedford's Reversion to a Town would take effect in FY 2014 and the net surplus from the City's operations would be available to the new Authority to pay debt service.
- The new Authority would begin paying the City's debt service in FY 2014.
- The City and the County would not continue their revenue sharing agreement contributions to the new Authority past FY 2013.
- The County would continue to pay its CIP Contribution for Debt of approximately $\$ 2$ million from FY 2012- FY 2023 and approximately \$960,000 per year from FY 2024-FY 2026.
- For Case IV, we have assumed that the two operations would not be incorporated into a single new Authority. We have assumed there would not be any additional revenues from the City's operations and the Authority would not be paying the City water and sewer fund debt service.


## Revenue Assumptions

The Authority's revenues come primarily from the sale of water and sewer treatment. These revenues are based on the projected rates charged for water and sewer. For FY 2012, we have assumed the water rate would be $\$ 5.40$ per thousand gallons and the sewer rate would be $\$ 7.00$ per thousand gallons. We have assumed that these revenues would increase at $2.0 \%$ per fiscal year from connections located in the County and $0.50 \%$ per fiscal year from connections located in the City, throughout the forecast period. The Authority also has some smaller sources of revenues including penalties, administrative fees, rental and service charges and contract operations. We have assumed that these other revenues would increase at $2.0 \%$ per fiscal year. A summary of revenue assumptions is shown below. Please see Appendix A for the complete model assumptions.

- Proposed Usage Rate for Water of \$5.40 per thousand in FY 2012
- Proposed Usage Rate for Sewer of \$7.00 per thousand in FY 2012
- Proposed Minimum Rate of $\$ 20.00$ per account, charged every other month
- County Water Revenue Growth Rate of $2.00 \%$
- County Sewer Revenue Growth Rate of $2.00 \%$
- City Water Revenue Growth Rate of 0.50\%
- City Sewer Revenue Growth Rate of 0.50\%
- Other Revenue Growth Rate of $2.00 \%$
- Authority Water Accounts totaled 8,671 at 6/30/2011
- Authority Sewer Accounts totaled 1,578 at 6/30/2011
- City Water Accounts totaled 3,583 at 6/30/2010
- City Sewer Accounts totaled 2,929 at 6/30/2010
- Projected Growth Rate in Authority Accounts of $1.00 \%$
- Average Gallons of Water Sold Per Account per year of 75,000
- Average Gallons of Sewer Treated Per Account per year of 80,000
- The only contributions for Capital Projects that are included in revenue projections are those existing contributions that are being made by the County.
- No Line Dedications or Prepay Redemptions are included in revenue projections


## Expense Assumptions

The Authority's expenses are comprised of operational expenses including personnel, administration, customer service, facilities service and vehicle and equipment service costs. We have assumed that operational expenses would grow at $2.0 \%$ per fiscal year for the County and $0.50 \%$ for the City. The Authority also has water and sewer operations costs that include water and sewer purchases from the City of Lynchburg. We derived the fiscal year 2012 purchase expenses by looking at the projected amount of water purchased for the Forest and Stewartsville. The water purchase rates for FY 2012 were projected to be $\$ 2.80$ per thousand for the Forest and $\$ 2.74$ per thousand for Stewartsville. The sewer purchase rate for Forest for FY 2012 is projected to be $\$ 1.67$ per thousand. Based on reports prepared by the City of Lynchburg, after FY 2012 we have assumed that the water and sewer purchase expenses would grow at $3.0 \%$ per fiscal year. We have also incorporated the existing debt service of the Authority and the City into the financing model as an expense. Finally, based on the PER (Page 20, Table 6), for Case II, we have assumed that the new facility would increase operating costs by $\$ 196,400$ to expand the treatment rate at the Highpoint Water Treatment Plant ("WTP") to 1.0 million gallons per day ("MGD") and $\$ 439,700$ to treat an additional 5.0 MGD WTP at the new facility for a total capacity of 6.0 MGD. These expenses would be incurred starting in FY 2016, when the new facility is anticipated to become operational. We assumed these additional operating costs would grow at $2.0 \%$ during the forecast period. A summary of expense assumptions is shown below. Please see Appendix A for the complete model assumptions.

- Proposed County Expenditure Growth Rate of 2.0\%
- Proposed City Expenditure Growth Rate of 0.50\%
- Forest Water Purchase Rate of $\$ 2.80$ per thousand in FY 2012
- Forest Water Purchase in FY 2012 of 610,249,528 gallons
- Stewartsville Water Purchase Rate of $\$ 2.74$ per thousand in FY 2012
- Stewartsville Water Purchase in FY 2012 of 10,860,200 gallons
- Forest Sewer Purchase Rate of \$1.67 per thousand in FY 2012
- Forest Sewer Treatment Purchase in FY 2012 of 127,440,593 gallons
- Water \& Sewer Purchase Fee Growth Rate of 3.0\%
- The model incorporates the existing debt service of the Authority and the City into the expenditures.
- $\$ 196,400$ in annual operations costs added in FY 2016 for WTP Phase 1a, expanding the Highpoint WTP treatment rate to 1.0 MGD
- $\$ 439,700$ in annual operations costs added in FY 2016 for WTP Phase 1b, for treating 5.0 MGD at the new WTP

We will defer the description of the debt financing assumptions associated with each case until after the more detailed description of each case on the following pages.

The primary goal of our analysis is to compare the relative costs of the various options for a new water treatment plant to serve the Smith Mountain Lake, Bedford City, and Forest Areas. Given the length of the forecast period (2060), it would be difficult to accurately project the Authority's future capital and maintenance needs for its existing infrastructure. We have not assumed any changes to that existing infrastructure in our forecast model.

## III. Case I - Continue to Purchase Water from Lynchburg for the Forest Area

For Case I, we assumed the Authority would continue purchasing water from the City of Lynchburg for the Forest Area and not build the new 5.0 MGD facility at Smith Mountain Lake. If the Authority chose this alternative, it would need to finance approximately $\$ 8.5$ million of capital costs to build the Alternative B3 project identified in the PER; this project consists of a 20 -inch Route 460 waterline and pump station to Bedford City to provide the backup source that is required as part of the Reversion Agreement. We assumed these costs would be financed by a bond issue in FY 2014 with level debt service payments of approximately $\$ 650,000$ per year from FY 2016-FY 2038. The financing assumptions for Case I are shown below.

- $\$ 8,500,000$ in project costs bond financed with a bond issue in FY 2014
- The bond issue would have 2 years of interest only and then 23 years of amortization for a 25 year final maturity
- \$750,000 in bond financed capitalized interest to pay the interest on the bonds for FY 2014 and FY 2015
- Bonds amortized over 23 years to achieve level debt service of approximately $\$ 650,000$ per year from FY 2016-FY 2038
- Assumed interest rate of $4.50 \%$

For Case I, we have also assumed that the new Authority continues to purchase water and sewer from the City of Lynchburg with these expenses increasing at $3.0 \%$ per year throughout the forecast period. As is shown in the 'Chart 1 Pro-Forma with Continuing Water Purchases' below, the Authority would generate net revenues available to pay debt service of at least 1.0 times in each fiscal year, except for small deficits in FY 2016 and FY 2017. Those are the first two years of debt service for the $\$ 8.5$ million project to complete the water lines to Bedford City. Debt service coverage ranges from $0.97 x$ in FY 2016 to $1.21 x$ in FY 2021. The minimum water rate needed to maintain a balanced budget and 1.0x debt service is in the shaded blue row in the chart below. The minimum water rate needed for a balanced budget under this scenario ranges from $\$ 4.98$ per thousand in FY 2013 to $\$ 6.04$ per thousand in FY 2017.

However, by FY 2021, the minimum water rate needed for a balanced budget is projected to decline to \$5.51 per thousand because the Authority's annual debt service burden has declined from a high of $\$ 3.84$ million in FY 2016 to $\$ 3.28$ million in FY 2021. Please see Chart 1 below for the 'Pro-Forma with Continuing Water Purchases'. Supporting analysis for Case I can be found in Appendix B.

CHART 1- Pro-Forma with Continuing Water Purchases

| Bedford County Public Service Authority Pro-Forma with Continuing Water Purchases |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Revenue Sources | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
| Water Sales | \$4,597,798 | \$4,715,423 | \$4,836,387 | \$4,960,791 | \$5,088,735 | \$5,220,324 | \$5,355,666 | \$5,494,873 | \$5,638,058 | \$5,785,339 |
| Sewer Sales | 1,083,770 | 1,112,637 | 1,142,337 | 1,172,894 | 1,204,335 | 1,236,686 | 1,269,973 | 1,304,226 | 1,339,471 | 1,375,740 |
| Penalties | 42,000 | 42,840 | 43,697 | 44,571 | 45,462 | 46,371 | 47,299 | 48,245 | 49,210 | 50,194 |
| Facility Fees | - | - | - | - | - | - | - | - | - | - |
| Administrative Fees | 57,650 | 58,803 | 59,979 | 61,179 | 62,402 | 63,650 | 64,923 | 66,222 | 67,546 | 68,897 |
| Interest | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 |
| Rental \& Service Charges | 108,710 | 110,884 | 113,102 | 115,364 | 117,671 | 120,025 | 122,425 | 124,874 | 127,371 | 129,919 |
| Contract Operations | 92,000 | 93,840 | 95,717 | 97,631 | 99,584 | 101,575 | 103,607 | 105,679 | 107,793 | 109,949 |
| Miscellaneous | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 |
| Bedford County CIP Contribution for Debt | 1,996,485 | 2,000,000 | 2,000,000 | 2,000,000 | 1,993,831 | 1,995,615 | 1,992,132 | 1,989,944 | 1,990,298 | 1,990,595 |
| Revenue from Operations | 7,984,413 | 8,140,427 | 8,297,219 | 8,458,429 | 8,618,020 | 8,790,247 | 8,962,026 | 9,140,061 | 9,325,747 | 9,516,632 |
| Other Non Operating Revenue Sources |  |  |  |  |  |  |  |  |  |  |
| Net Surplus from City of Bedford Pro Forma after 2014 Reversion | - | - | 616,729 | 620,543 | 624,390 | 628,272 | 632,189 | 636,140 | 640,127 | 644,150 |
| DEQ Contributions for Capital Projects | - | - | - | - | - | - | - | - | - | - |
| Line Dedications | - | - | - | - | - | - | - | - | - |  |
| Prepay Redemptions | - | - | - | - | - | - | - | - | - | - |
| Miscellaneous | - | - | - | - | - | - | - | - | - | - |
| Other Revenue \& Support | - | - | 616,729 | 620,543 | 624,390 | 628,272 | 632,189 | 636,140 | 640,127 | 644,150 |
| total revenues | \$7,984,413 | \$8,140,427 | \$8,913,947 | \$9,078,972 | \$9,242,410 | \$9,418,519 | \$9,594,214 | \$9,776,201 | \$9,965,874 | \$10,160,783 |
| Operating Expenditures | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
| Personnel Costs | 1,889,807 | 1,927,603 | 1,966,155 | 2,005,478 | 2,045,588 | 2,086,500 | 2,128,230 | 2,170,794 | 2,214,210 | 2,258,494 |
| Administration | 246,504 | 251,434 | 256,463 | 261,592 | 266,824 | 272,160 | 277,604 | 283,156 | 288,819 | 294,595 |
| Customer Service and Billing Costs | 75,022 | 76,522 | 78,053 | 79,614 | 81,206 | 82,830 | 84,487 | 86,177 | 87,900 | 89,658 |
| Design \& Facilities Services | 27,757 | 28,312 | 28,878 | 29,456 | 30,045 | 30,646 | 31,259 | 31,884 | 32,522 | 33,172 |
| Vehicle \& Equipment Services | 116,449 | 118,778 | 121,154 | 123,577 | 126,048 | 128,569 | 131,140 | 133,763 | 136,439 | 139,167 |
| Increased Expenditures from New Facility |  |  | , |  |  |  | , |  | - |  |
|  | 2,355,539 | 2,402,650 | 2,450,703 | 2,499,717 | 2,549,711 | 2,600,705 | 2,652,719 | 2,705,774 | 2,759,889 | 2,815,087 |
| Water Purchases from Lynchburg | 1,738,456 | 1,790,609 | 1,844,328 | 1,899,657 | 1,956,647 | 2,015,347 | 2,075,807 | 2,138,081 | 2,202,224 | 2,268,290 |
| Other Water Operations | 336,384 | 343,112 | 349,974 | 356,974 | 364,113 | 371,396 | 378,823 | 386,400 | 394,128 | 402,010 |
| Total Water Operations | 2,074,840 | 2,133,721 | 2,194,302 | 2,256,631 | 2,320,760 | 2,386,742 | 2,454,630 | 2,524,481 | 2,596,351 | 2,670,301 |
| Sewer Treatment Purchases from Lynchburg | 212,826 | 219,211 | 225,787 | 232,560 | 239,537 | 246,723 | 254,125 | 261,749 | 269,601 | 277,689 |
| Other Sewer Operations | 319,479 | 325,869 | 332,386 | 339,034 | 345,815 | 352,731 | 359,785 | 366,981 | 374,321 | 381,807 |
| Total Sewer Operations | 532,305 | 545,079 | 558,173 | 571,594 | 585,352 | 599,454 | 613,911 | 628,730 | 643,922 | 659,497 |
| Contract Operations | 45,000 | 45,900 | 46,818 | 47,754 | 48,709 | 49,684 | 50,677 | 51,691 | 52,725 | 53,779 |
| Direct Operating Expenses | 5,007,684 | 5,127,350 | 5,249,996 | 5,375,697 | 5,504,533 | 5,636,585 | 5,771,938 | 5,910,676 | 6,052,888 | 6,198,664 |
| Additional Fund Balance available to Pay Debt Service NET REVENUES AVAILABLE TO PAY DEBT SERVICE | - | - | - | - | - | - | - | - | - | - |
|  | 2,976,729 | 3,013,076 | 3,663,952 | 3,703,276 | 3,737,878 | 3,781,934 | 3,822,277 | 3,865,526 | 3,912,986 | 3,962,119 |
| Existing Authority Debt Service | 2,757,127 | 2,664,415 | 2,636,183 | 2,632,824 | 2,171,926 | 2,171,368 | 2,150,787 | 2,092,818 | 2,065,775 | 2,000,116 |
| Existing City Debt Service after FY 2014 Reversion | - | - | 1,018,373 | 1,022,134 | 1,018,728 | 1,014,225 | 828,647 | 826,288 | 634,941 | 635,155 |
| Debt Service for Lines to City (\$5 million) | - | - | - | - | 648,468 | 648,227 | 647,976 | 647,713 | 647,439 | 647,152 |
| Total Debt Service | 2,757,127 | 2,664,415 | 3,654,556 | 3,654,958 | 3,839,122 | 3,833,821 | 3,627,410 | 3,566,819 | 3,348,155 | 3,282,423 |
| NET CASH SURPLUS/(DEFICIT) | 219,602 | 348,661 | 9,396 | 48,317 | $(101,244)$ | $(51,887)$ | 194,866 | 298,706 | 564,831 | 679,696 |
| Debt Service Coverage (Minimum of 1.15x Required) | 1.08 | 1.13 | 1.00 | 1.01 | 0.97 | 0.99 | 1.05 | 1.08 | 1.17 | 1.21 |
| Projected Water Sale Rate | \$5.40 | \$5.51 | \$5.62 | \$5.73 | \$5.85 | \$5.96 | \$6.08 | \$6.20 | \$6.33 | \$6.45 |
| Projected Sewer Sale Rate | \$7.00 | \$7.14 | \$7.28 | \$7.43 | \$7.58 | \$7.73 | \$7.88 | \$8.04 | \$8.20 | \$8.37 |
| Minimum Water Rate to Achieve 1.00x coverage (Balanced Budget) | \$5.07 | \$4.98 | \$5.60 | \$5.66 | \$5.99 | \$6.04 | \$5.80 | \$5.78 | \$5.53 | \$5.51 |
| Minimum Water Rate to Achieve 1.15x coverage | \$5.70 | \$5.58 | \$6.42 | \$6.47 | \$6.84 | \$6.87 | \$6.58 | \$6.54 | \$6.24 | \$6.19 |

Per the Authority, the current bond covenant requirement is $1.15 x$ debt service coverage. We have shown the minimum water rate that would be required to generate $1.15 x$ coverage in orange, in the chart above, for each forecast year. It ranges from $\$ 5.70$ per thousand in FY 2012 to $\$ 6.87$ per thousand in FY 2017. However, in the past, the Authority has been able to utilize its existing cash on hand as a partial credit when calculating its debt service coverage and we assumed that could continue during the forecast period. Therefore, our analysis has focused more on the 1.0 x debt service coverage, or a balanced budget approach, when comparing the financing alternatives.

## IV. Case II - Provide Water to the Forest Area from Lakes Central Water System

For Case II, we assumed the Authority would bond finance a $\$ 33.9$ million project to complete alternative A2 Lakes to Forest, as described in the PER. This project cost estimate was taken from page 26, Table 9 of the PER that depicts the total project cost of the A2 Lakes to Forest project. This project would upgrade the Highpoint WTP to 1.0 MGD (Phase 1a), construct a new 5.0 MGD WTP (Phase 1b), construct a 24-inch Route 122 Transmission Main (Phase 1c), construct a 20-inch Rte 460 Transmission Main (Phase 1d), construct the Whitehouse Road Loop (Phase 2), and construct the Route 122 Pump Station (Phase 3).

We assumed the $\$ 33.9$ million in project costs plus $\$ 3.0$ million for 2 years of capitalized interest would be financed by a bond issue in FY 2014. We have projected that the new facility would become operational in FY 2016. The bond issue would have 2 years of interest only and then 23 years of amortization for a 25 year final maturity. The level debt service payments would be approximately $\$ 2,580,000$ per year from FY 2016-FY 2038. The Authority would also incur approximately $\$ 196,400$ in additional operating costs for Phase 1a of the WTP and $\$ 439,700$ in additional operating costs for Phase 1 b of the WTP. Finally, we assumed that the Authority would continue to purchase 100,000 gallons of water per day or $36,500,000$ gallons of water per year from the City of Lynchburg from FY 2016 to the end of the forecast period. In FY 2016, we estimate that the water purchase fee from the City of Lynchburg will be $\$ 3.15$ per thousand gallons. That would equate to $\$ 115,000$ in water purchase expenses in FY 2016. We assumed these water purchase expenses would grow at $3.0 \%$ per fiscal year during the forecast period. The financing assumptions for Case II are shown below.

- $\$ 33,900,000$ in bond financed project costs with a bond issue in FY 2014
- The bond issue would have 2 years of interest only and then 23 years of amortization for a 25 year final maturity
- $\$ 3,000,000$ in bond financed capitalized interest to pay the interest on the bonds for FY 2014 and FY 2015
- Bonds amortized over 23 years to achieve level debt service of approximately $\$ 2.58$ million per year from FY 2016-FY 2038
- Assumed interest rate of $4.50 \%$
- \$196,400 in additional annual operations costs added in FY 2016 for WTP Phase 1a, expanding the treatment rate of the Highpoint WTP to 1.0 MGD
- $\$ 439,700$ in additional annual operations costs added in FY 2016 for WTP Phase 1b, when treating 5.0 MGD at the new WTP
- Additional operating expenses grow at 2.0\%.
- Continuing water purchases from the City of Lynchburg of 100,000 gallons per day or 36,500,000 gallons per year.
- Ongoing Water purchase expenses from the City of Lynchburg grow at 3.0\%.

For Case II, as is shown in 'Chart 2 Pro-Forma with New Facility' below, the new Authority would generate net revenues available to pay debt service of at least 1.0 times in FY 2012-2015, before the facility becomes operational, and in FY 2020-2021. For FY's 2016-2019, the Authority would not have net revenues available to pay debt service of at least $1.0 x$, assuming that water and sewer revenues are growing at $2.0 \%$ per year for the County and $0.50 \%$ for the City. Debt service coverage ranges from $0.86 x$ in $F Y 2016$ to $0.95 x$ in FY 2019. As is shown in the blue shaded row on Chart 2 , the minimum water rate needed for a balanced budget ranges from $\$ 5.07$ per thousand in FY 2012 to $\$ 7.07$ per thousand in

FY 2016. However, by FY 2021, the minimum water rate needed for a balanced budget is projected to decline to $\$ 6.21$ per thousand. This decline is because the Authority's debt service burden has declined from a high of $\$ 5.8$ million in FY 2016 to $\$ 5.2$ million in FY 2021. Please see Chart 2 below for the 'ProForma with New Facility'. Refer to Appendix C for supporting information on Case II.

CHART 2- Pro-Forma with New Facility

| Bedford County Public Service Authority |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Pro-Forma with New Facility in FY 2016 |  |  |  |  |  |  |  |  |  |  |
| Revenue Sources | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
| Water Sales | \$4,597,798 | \$4,715,423 | \$4,836,387 | \$4,960,791 | \$5,088,735 | \$5,220,324 | \$5,355,666 | \$5,494,873 | \$5,638,058 | \$5,785,339 |
| Sewer Sales | 1,083,770 | 1,112,637 | 1,142,337 | 1,172,894 | 1,204,335 | 1,236,686 | 1,269,973 | 1,304,226 | 1,339,471 | 1,375,740 |
| Penalties | 42,000 | 42,840 | 43,697 | 44,571 | 45,462 | 46,371 | 47,299 | 48,245 | 49,210 | 50,194 |
| Facility Fees | - | - | - | - | - | - | - | - | - | - |
| Administrative Fees | 57,650 | 58,803 | 59,979 | 61,179 | 62,402 | 63,650 | 64,923 | 66,222 | 67,546 | 68,897 |
| Interest | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 |
| Rental \& Serrice Charges | 108,710 | 110,884 | 113,102 | 115,364 | 117,671 | 120,025 | 122,425 | 124,874 | 127,371 | 129,919 |
| Contract Operations | 92,000 | 93,840 | 95,717 | 97,631 | 99,584 | 101,575 | 103,607 | 105,679 | 107,793 | 109,949 |
| Miscellaneous | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 |
| Bedford County CIP Contribution for Debt | 1,996,485 | 2,000,000 | 2,000,000 | 2,000,000 | 1,993,831 | 1,995,615 | 1,992,132 | 1,989,944 | 1,990,298 | 1,990,595 |
| Revenue from Operations | 7,984,413 | 8,140,427 | 8,297,219 | 8,458,429 | 8,618,020 | 8,790,247 | 8,962,026 | 9,140,061 | 9,325,747 | 9,516,632 |
| Other Non Operating Revenue Sources |  |  |  |  |  |  |  |  |  |  |
| Net Surplus from City of Bedford Pro Forma after 2014 |  |  |  |  |  |  |  |  |  |  |
| Reversion | - | - | 616,729 | 620,543 | 624,390 | 628,272 | 632,189 | 636,140 | 640,127 | 644,150 |
| DEQ Contributions for Capital Projects | - | - | - | - | - | - | - | - | - | - |
| Line Dedications | - | - | - | - | - | - | - | - | - | - |
| Prepay Redemptions | - | - | - | - | - | - | - | - | - | - |
| Miscellaneous | - | - | - | - | - | - | - | - | - | - |
| Other Revenue \& Support | - | - | 616,729 | 620,543 | 624,390 | 628,272 | 632,189 | 636,140 | 640,127 | 644,150 |
| total revenues | \$7,984,413 | \$8,140,427 | \$8,913,947 | \$9,078,972 | \$9,242,410 | \$9,418,519 | \$9,594,214 | \$9,776,201 | \$9,965,874 | \$10,160,783 |
| Operating Expenditures | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
| Personnel Costs | 1,889,807 | 1,927,603 | 1,966,155 | 2,005,478 | 2,045,588 | 2,086,500 | 2,128,230 | 2,170,794 | 2,214,210 | 2,258,494 |
| Administration | 246,504 | 251,434 | 256,463 | 261,592 | 266,824 | 272,160 | 277,604 | 283,156 | 288,819 | 294,595 |
| Customer Service and Billing Costs | 75,022 | 76,522 | 78,053 | 79,614 | 81,206 | 82,830 | 84,487 | 86,177 | 87,900 | 89,658 |
| Design \& Facilities Services | 27,757 | 28,312 | 28,878 | 29,456 | 30,045 | 30,646 | 31,259 | 31,884 | 32,522 | 33,172 |
| Vehicle \& Equipment Services | 116,449 | 118,778 | 121,154 | 123,577 | 126,048 | 128,569 | 131,140 | 133,763 | 136,439 | 139,167 |
| Increased Expenditures from New Facility ${ }^{1}$ | - | - | - | - | 636,100 | 648,822 | 661,798 | 675,034 | 688,535 | 702,306 |
|  | 2,355,539 | 2,402,650 | 2,450,703 | 2,499,717 | 3,185,811 | 3,249,527 | 3,314,518 | 3,380,808 | 3,448,424 | 3,517,393 |
| Water Purchases from Lynchburg ${ }^{2}$ | 1,738,456 | 1,790,609 | 1,844,328 | 1,899,657 | 115,027 | 118,478 | 122,032 | 125,693 | 129,464 | 133,348 |
| Other Water Operations | 336,384 | 343,112 | 349,974 | 356,974 | 364,113 | 371,396 | 378,823 | 386,400 | 394,128 | 402,010 |
| Total Water Operations | 2,074,840 | 2,133,721 | 2,194,302 | 2,256,631 | 479,140 | 489,873 | 500,856 | 512,093 | 523,592 | 535,358 |
| Sewer Treatment Purchases from Lynchburg | 212,826 | 219,211 | 225,787 | 232,560 | 239,537 | 246,723 | 254,125 | 261,749 | 269,601 | 277,689 |
| Other Sewer Operations | 319,479 | 325,869 | 332,386 | 339,034 | 345,815 | 352,731 | 359,785 | 366,981 | 374,321 | 381,807 |
| Total Sewer Operations | 532,305 | 545,079 | 558,173 | 571,594 | 585,352 | 599,454 | 613,911 | 628,730 | 643,922 | 659,497 |
| Contract Operations | 45,000 | 45,900 | 46,818 | 47,754 | 48,709 | 49,684 | 50,677 | 51,691 | 52,725 | 53,779 |
| Direct Operating Expenses | 5,007,684 | 5,127,350 | 5,249,996 | 5,375,697 | 4,299,013 | 4,388,539 | 4,479,961 | 4,573,322 | 4,668,663 | 4,766,027 |
| Additional Fund Balance available to Pay Debt Service net revenues available to pay debt service | - | - | - | - | - | - | - | - | - | - |
|  | 2,976,729 | 3,013,076 | 3,663,952 | 3,703,276 | 4,943,398 | 5,029,980 | 5,114,253 | 5,202,879 | 5,297,211 | 5,394,756 |
| Existing Authority Debt Service | 2,757,127 | 2,664,415 | 2,636,183 | 2,632,824 | 2,171,926 | 2,171,368 | 2,150,787 | 2,092,818 | 2,065,775 | 2,000,116 |
| Existing City Debt Service after FY 2014 Reversion | - | - | 1,018,373 | 1,022,134 | 1,018,728 | 1,014,225 | 828,647 | 826,288 | 634,941 | 635,155 |
| Debt Service for New Facility | - | - | - | - | 2,586,861 | 2,585,902 | 2,584,899 | 2,583,851 | 2,582,756 | 2,581,612 |
| Total Debt Service | 2,757,127 | 2,664,415 | 3,654,556 | 3,654,958 | 5,777,515 | 5,771,495 | 5,564,333 | 5,502,957 | 5,283,472 | 5,216,883 |
| NET CASH SURPLUS/(DEFICIT) | 219,602 | 348,661 | 9,396 | 48,317 | $(834,117)$ | $(741,515)$ | $(450,080)$ | $(300,078)$ | 13,739 | 177,873 |
| Debt Service Coverage (Minimum of 1.15x Required) | 1.08 | 1.13 | 1.00 | 1.01 | 0.86 | 0.87 | 0.92 | 0.95 | 1.00 | 1.03 |
| Projected Water Sale Rate | \$5.40 | \$5.51 | \$5.62 | \$5.73 | \$5.85 | \$5.96 | \$6.08 | \$6.20 | \$6.33 | \$6.45 |
| Projected Sewer Sale Rate | \$7.00 | \$7.14 | \$7.28 | \$7.43 | \$7.58 | \$7.73 | \$7.88 | \$8.04 | \$8.20 | \$8.37 |
| $\begin{array}{l}\text { Minimum Water Rate to Achieve 1.00x coverage } \\ \text { (Balanced Budget) }\end{array}$ | \$5.07 | \$4.98 | \$5.60 | \$5.66 | \$7.07 | \$7.04 | \$6.73 | \$6.63 | \$6.31 | \$6.21 |
| Minimum Water Rate to Achieve 1.15x coverage | \$5.70 | \$5.58 | \$6.42 | \$6.47 | \$8.33 | \$8.29 | \$7.92 | \$7.80 | \$7.42 | \$7.30 |

[^0]
## V. Comparison of Case I and Case II

First, we compared 'Case I- Pro-Forma with Continuing Water Purchases from Lynchburg' to 'Case II-Pro-Forma with the New Facility' by looking at the projected water rates needed to achieve a balanced budget. Case I has 2 years where the net revenues available to pay debt service are not projected to produce a balanced budget in FY 2016 and FY 2017. Case II has 4 years where the net revenues available to pay debt service are not projected to produce a balanced budget in FY 2016 to FY 2019. Under Case I, the maximum water rate required to achieve a balanced budget is $\$ 6.04$ per thousand in FY 2017. Under Case II, the maximum water rate required to achieve a balanced budget increases to $\$ 7.07$ per thousand in FY 2016. In both cases, by FY 2020, the projected water rate will exceed the rate required to achieve a balanced budget.

Chart 3, below, shows the projected water rate needed for a balanced budget under Case I and Case II, and compares those to the Authority's projected water rate, assuming $2.0 \%$ growth rate. The red line shows the projected water rate needed to achieve a balanced budget under Case I. The blue line shows the projected water rate needed to achieve a balanced budget under Case II. The green line shows the projected water rate assuming a $2.0 \%$ growth rate, which illustrates the projected growth rate under the Authority's historical average as provided by management. Case I and Case II are relatively similar until FY 2038 with Case I having a slightly lower projected water rate for a balanced budget. In FY 2039, the debt service for the new facility will be paid in full. In that year, the expenses under Case II will decline by approximately $\$ 2.58$ million per year and the water rate required to achieve a balanced budget will fall to $\$ 2.40$ per thousand.

CHART 3- Projected Water Sales Rate FY 2012-FY 2060

| FY | Case I- Pro <br> Forma with Water Purchases | Case II- Pro <br> Forma with <br> New <br> Facility | Projected Water Rate at 2.0\% Growth |
| :---: | :---: | :---: | :---: |
| 2012 | \$5.07 | \$5.07 | \$5.40 |
| 2013 | \$4.98 | \$4.98 | \$5.51 |
| 2014 | \$5.60 | \$5.60 | \$5.62 |
| 2015 | \$5.66 | \$5.66 | \$5.73 |
| 2016 | \$5.99 | \$7.07 | \$5.85 |
| 2017 | \$6.04 | \$7.04 | \$5.96 |
| 2018 | \$5.80 | \$6.73 | \$6.08 |
| 2019 | \$5.78 | \$6.63 | \$6.20 |
| 2020 | \$5.53 | \$6.31 | \$6.33 |
| 2021 | \$5.51 | \$6.21 | \$6.45 |
| 2022 | \$5.56 | \$6.18 | \$6.58 |
| 2023 | \$5.63 | \$6.18 | \$6.71 |
| 2024 | \$5.70 | \$6.17 | \$6.85 |
| 2025 | \$5.78 | \$6.16 | \$6.99 |
| 2026 | \$5.85 | \$6.15 | \$7.13 |
| 2027 | \$5.09 | \$5.31 | \$7.27 |
| 2028 | \$5.18 | \$5.32 | \$7.41 |
| 2029 | \$5.26 | \$5.32 | \$7.56 |
| 2030 | \$5.35 | \$5.32 | \$7.71 |
| 2031 | \$5.44 | \$5.33 | \$7.87 |
| 2032 | \$5.53 | \$5.33 | \$8.02 |
| 2033 | \$5.62 | \$5.33 | \$8.18 |
| 2034 | \$5.71 | \$5.34 | \$8.35 |
| 2035 | \$5.81 | \$5.34 | \$8.52 |
| 2036 | \$5.91 | \$5.35 | \$8.69 |
| 2037 | \$6.00 | \$5.35 | \$8.86 |
| 2038 | \$6.10 | \$5.36 | \$9.04 |
| 2039 | \$5.46 | \$2.40 | \$9.22 |
| 2040 | \$5.57 | \$2.44 | \$9.40 |
| 2041 | \$5.68 | \$2.47 | \$9.59 |
| 2042 | \$5.80 | \$2.51 | \$9.78 |
| 2043 | \$5.91 | \$2.55 | \$9.98 |
| 2044 | \$6.03 | \$2.59 | \$10.18 |
| 2045 | \$6.15 | \$2.63 | \$10.38 |
| 2046 | \$6.27 | \$2.67 | \$10.59 |
| 2047 | \$6.39 | \$2.70 | \$10.80 |
| 2048 | \$6.51 | \$2.74 | \$11.02 |
| 2049 | \$6.64 | \$2.78 | \$11.24 |
| 2050 | \$6.77 | \$2.82 | \$11.46 |
| 2051 | \$6.90 | \$2.86 | \$11.69 |
| 2052 | \$7.03 | \$2.90 | \$11.92 |
| 2053 | \$7.16 | \$2.93 | \$12.16 |
| 2054 | \$7.29 | \$2.97 | \$12.41 |
| 2055 | \$7.43 | \$3.01 | \$12.65 |
| 2056 | \$7.57 | \$3.05 | \$12.91 |
| 2057 | \$7.71 | \$3.08 | \$13.16 |
| 2058 | \$7.85 | \$3.12 | \$13.43 |
| 2059 | \$8.00 | \$3.16 | \$13.70 |
| 2060 | \$8.15 | \$3.20 | \$13.97 |



Next, we compared 'Case I- Pro-Forma with Continuing Water Purchases' to 'Case II- Pro-Forma with the New Facility' by looking at projected total expenditures. Case I and Case II have the same projected expenditures in FY 2012-FY 2015, before the facility has been constructed and the new Authority is continuing to purchase water from the City of Lynchburg as the Authority has been doing historically. Then, from FY 2016-FY 2029, Case I has lower expenditures that range from a difference of $\$ 732,873$ in FY 2016 to $\$ 44,437$ in FY 2029. From FY 2030-FY 2060, Case II has lower projected expenditures that range from a difference of $\$ 21,514$ in FY 2030 to $\$ 5,241,108$ in FY 2060. Projected total expenditures under Case I from FY 2012 to FY 2060 equal $\$ 517,438,046$. Projected total expenditures under Case II from FY 2012 to FY 2060 equal $\$ 436,742,643$. The difference in Projected Total Expenditures for the planning period is $\$ 80,695,403$.

Chart 4, below, shows the projected total expenditures under Case I and Case II. The red line shows the projected expenditures under Case I. The blue line shows the projected expenditures under Case II. Case I has lower expenditures from FY 2016-FY 2029. Case II has lower expenditures from FY 2030-FY 2060. One thing to keep in mind is that these projections only look at the additional expenses associated with this project and do not attempt to project other capital needs the Authority may have over time; however, the facility fees collected from new development connections have been removed from the revenue projections, and could be used for other minor capital needs.

## CHART 4- Projected Expenditures FY 2012-FY 2060



## VI. Case III - Provide Water to the Forest Area from Lakes Central Water System in Three Phases

For Case III, we assumed the Authority would bond finance alternative A2, as outlined in the PER, with $\$ 33.9$ million in project costs in three phases. We project that the first phase would cost $\$ 24.0$ million and would be bond financed in FY 2014. This project would upgrade the Highpoint WTP to 1.0 MGD, construct the majority of a new 5.0 MGD WTP, construct a 24 -inch Route 122 Transmission Main, and construct a 20 -inch Route 460 transmission main. We then included a second phase which would construct the remaining portions of the 5.0 MGD WTP at a cost of $\$ 5.0$ million and would be financed in FY 2024. A third phase would construct the Route 122 Pump Station, add membrane filters to the WTP, and construct the 18 -inch White House Road Loop at a cost of $\$ 4.9$ million and would be financed in FY 2034. This would allow the Authority to spread its debt service over a longer period of time and add to the capacity of the water system as demand required.

For Phase 1, we assumed $\$ 24.0$ million in project costs plus $\$ 2.3$ million for 2 years of capitalized interest would be financed by a bond issue in FY 2014. We have projected that the new facility would become operational in FY 2016. The bond issue would have 2 years of interest only and then 23 years of amortization for a 25 year final maturity. The level debt service payments would be approximately \$1.84 million per year from FY 2016-FY 2038.

For Phase 2, we assumed $\$ 5.0$ million in project costs plus $\$ 500,000$ for 2 years of capitalized interest would be financed by a bond issue in FY 2024. The bond issue would have 2 years of interest only and then 23 years of amortization for a 25 year final maturity. The level debt service payments would be approximately \$385,000 per year from FY 2026-FY 2048.

For Phase 3, we assumed $\$ 4.9$ million in project costs plus $\$ 500,000$ for 2 years of capitalized interest would be financed by a bond issue in FY 2034. The bond issue would have 2 years of interest only and then 23 years of amortization for a 25 year final maturity. The level debt service payments would be approximately \$375,000 per year from FY 2026-FY 2058.

Similar to Case II, we conservatively assumed the Authority would incur approximately $\$ 196,400$ in additional operating costs for Phase 1a of the WTP and \$439,700 in additional operating costs for Phase 1b of the WTP starting in FY 2016. We used the same estimates as Case II because the projects being constructed during Phase 1 are those that would incur the large majority of the operating costs. We did not assume any additional operating costs would be incurred when Phase 2 and Phase 3 are constructed in 2024 and 2034, because the full operating costs were included in Phase 1. Also, similar to Case II, we assumed that the Authority would continue to purchase 100,000 gallons of water per day or $36,500,000$ gallons of water per year from the City of Lynchburg from FY 2016 to the end of the end forecast period. The financing assumptions for Case III are shown below.

- $\$ 33,900,000$ in project costs bond financed with three bond issues
- \$24,000,000 financed in FY 2014
- \$5,000,000 financed in FY 2024
- \$4,900,000 financed in FY 2034
- $\$ 3,300,000$ in capitalized interest bond financed to pay interest on the Bonds
- $\$ 2,300,000$ in capitalized interest financed in FY 2014 to pay the interest on the bonds for FY 2014 and FY 2015
- $\$ 500,000$ in capitalized interest financed in FY 2024 to pay the interest on the bonds for FY 2024 and FY 2025
- $\$ 500,000$ in capitalized interest financed in FY 2034 to pay the interest on the bonds for FY 2034 and FY 2035
- Each bond issue would have 2 years of interest only and then 23 years of amortization for a 25 year final maturity
- Assumed interest rate of $4.50 \%$
- Phase 1 bonds amortized over 23 years to achieve level debt service of approximately $\$ 1.84$ million per year from FY 2016-FY 2038
- Phase 2 bonds amortized over 23 years to achieve level debt service of approximately $\$ 385,000$ per year from FY 2026-FY 2048
- Phase 3 bonds amortized over 23 years to achieve level debt service of approximately \$375,000 per year from FY 2036-FY 2058
- \$196,400 in additional annual operations costs added in FY 2016 for WTP Phase 1a, expanding the Highpoint WTP to 1.0 MGD
- $\$ 439,700$ in additional annual operations costs added in FY 2016 for WTP Phase 1b, constructing the 5.0 MGD WTP
- Additional operating expenses grow at $2.0 \%$.
- Continuing water purchases from the City of Lynchburg of 100,000 gallons per day or $36,500,000$ gallons per year.
- Ongoing Water purchase expenses from the City of Lynchburg grow at 3.0\%.

For Case III, as is shown in 'Chart 5 Pro-Forma with New Facility Built in Three Phases', the model projects that the Authority would generate net revenues available to pay debt service of at least 1.0 times in every fiscal year except a small deficit of $\$ 91,008$ in FY 2016. Debt service coverage ranges from $0.98 x$ in FY 2016 to $1.21 x$ in FY 2021. As is shown in the blue shaded row on Chart 5, the minimum water rate needed for a balanced budget ranges from $\$ 5.07$ per thousand in FY 2012 to $\$ 5.98$ per thousand in FY 2016. However, by FY 2021, the minimum water rate needed for a balanced budget is projected to decline to $\$ 5.17$ per thousand. This decline is because the Authority's debt service burden has declined from a high of $\$ 5.0$ million in FY 2016 to $\$ 4.5$ million in FY 2021. Please see Chart 5 below for the 'Pro-Forma with New Facility Built in Three Phases'. Case III supporting analysis can be found in Appendix D.

CHART 5- Pro-Forma with New Facility Built in Three Phases

| Bedford County Public Service AuthorityPro-Forma with New Facility in Three Phases |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Revenue Sources | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
| Water Sales | \$4,597,798 | \$4,715,423 | \$4,836,387 | \$4,960,791 | \$5,088,735 | \$5,220,324 | \$5,355,666 | \$5,494,873 | \$5,638,058 | \$5,785,339 |
| Sewer Sales | 1,083,770 | 1,112,637 | 1,142,337 | 1,172,894 | 1,204,335 | 1,236,686 | 1,269,973 | 1,304,226 | 1,339,471 | 1,375,740 |
| Penalties | 42,000 | 42,840 | 43,697 | 44,571 | 45,462 | 46,371 | 47,299 | 48,245 | 49,210 | 50,194 |
| Facility Fees | - | - | - | - | - | - | - | - | - | - |
| Administrative Fees | 57,650 | 58,803 | 59,979 | 61,179 | 62,402 | 63,650 | 64,923 | 66,222 | 67,546 | 68,897 |
| Interest | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 |
| Rental \& Serrice Charges | 108,710 | 110,884 | 113,102 | 115,364 | 117,671 | 120,025 | 122,425 | 124,874 | 127,371 | 129,919 |
| Contract Operations | 92,000 | 93,840 | 95,717 | 97,631 | 99,584 | 101,575 | 103,607 | 105,679 | 107,793 | 109,949 |
| Miscellaneous | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 |
| Bedford County CIP Contribution for Debt | 1,996,485 | 2,000,000 | 2,000,000 | 2,000,000 | 1,993,831 | 1,995,615 | 1,992,132 | 1,989,944 | 1,990,298 | 1,990,595 |
| Revenue from Operations | 7,984,413 | 8,140,427 | 8,297,219 | 8,458,429 | 8,618,020 | 8,790,247 | 8,962,026 | 9,140,061 | 9,325,747 | 9,516,632 |
| Other Non Operating Revenue Sources |  |  |  |  |  |  |  |  |  |  |
| Net Surplus from City of Bedford Pro Forma after 2014 |  |  |  |  |  |  |  |  |  |  |
| Reversion | - | - | 616,729 | 620,543 | 624,390 | 628,272 | 632,189 | 636,140 | 640,127 | 644,150 |
| DEQ Contributions for Capital Projects | - | - | - | - | - | - | - | - | - | - |
| Line Dedications |  | - | - | - | - | - | - | - | - | - |
| Prepay Redemptions |  | - | - | - | - | - | - | - | - | - |
| Miscellaneous | - | - | - | - | - | - | - | - | - | - |
| Other Revenue \& Support | - | - | 616,729 | 620,543 | 624,390 | 628,272 | 632,189 | 636,140 | 640,127 | 644,150 |
| total revenues | \$7,984,413 | \$8,140,427 | \$8,913,947 | \$9,078,972 | \$9,242,410 | \$9,418,519 | \$9,594,214 | \$9,776,201 | \$9,965,874 | \$10,160,783 |
| Operating Expenditures | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
| Personnel Costs | 1,889,807 | 1,927,603 | 1,966,155 | 2,005,478 | 2,045,588 | 2,086,500 | 2,128,230 | 2,170,794 | 2,214,210 | 2,258,494 |
| Administration | 246,504 | 251,434 | 256,463 | 261,592 | 266,824 | 272,160 | 277,604 | 283, 156 | 288,819 | 294,595 |
| Customer Service and Billing Costs | 75,022 | 76,522 | 78,053 | 79,614 | 81,206 | 82,830 | 84,487 | 86,177 | 87,900 | 89,658 |
| Design \& Facilities Services | 27,757 | 28,312 | 28,878 | 29,456 | 30,045 | 30,646 | 31,259 | 31,884 | 32,522 | 33,172 |
| Vehicle \& Equipment Services | 116,449 | 118,778 | 121,154 | 123,577 | 126,048 | 128,569 | 131,140 | 133,763 | 136,439 | 139,167 |
| Increased Expenditures from New Facility ${ }^{1}$ | - | - | - | - | 636,100 | 648,822 | 661,798 | 675,034 | 688,535 | 702,306 |
|  | 2,355,539 | 2,402,650 | 2,450,703 | 2,499,717 | 3,185,811 | 3,249,527 | 3,314,518 | 3,380,808 | 3,448,424 | 3,517,393 |
| Water Purchases from Lynchburg ${ }^{2}$ | 1,738,456 | 1,790,609 | 1,844,328 | 1,899,657 | 115,027 | 118,478 | 122,032 | 125,693 | 129,464 | 133,348 |
| Other Water Operations | 336,384 | 343,112 | 349,974 | 356,974 | 364,113 | 371,396 | 378,823 | 386,400 | 394,128 | 402,010 |
| Total Water Operations | 2,074,840 | 2,133,721 | 2,194,302 | 2,256,631 | 479,140 | 489,873 | 500,856 | 512,093 | 523,592 | 535,358 |
| Sewer Treatment Purchases from Lynchburg | 212,826 | 219,211 | 225,787 | 232,560 | 239,537 | 246,723 | 254,125 | 261,749 | 269,601 | 277,689 |
| Other Sewer Operations | 319,479 | 325,869 | 332,386 | 339,034 | 345,815 | 352,731 | 359,785 | 366,981 | 374,321 | 381,807 |
| Total Sewer Operations | 532,305 | 545,079 | 558,173 | 571,594 | 585,352 | 599,454 | 613,911 | 628,730 | 643,922 | 659,497 |
| Contract Operations | 45,000 | 45,900 | 46,818 | 47,754 | 48,709 | 49,684 | 50,677 | 51,691 | 52,725 | 53,779 |
| Direct Operating Expenses | 5,007,684 | 5,127,350 | 5,249,996 | 5,375,697 | 4,299,013 | 4,388,539 | 4,479,961 | 4,573,322 | 4,668,663 | 4,766,027 |
| Additional Fund Balance available to Pay Debt Service NET REVENUES AVAILABLE TO PAY DEBT SERVICE | - | - | - | - | - | - | - | - | - | - |
|  | 2,976,729 | 3,013,076 | 3,663,952 | 3,703,276 | 4,943,398 | 5,029,980 | 5,114,253 | 5,202,879 | 5,297,211 | 5,394,756 |
| Existing Authority Debt Service | 2,757,127 | 2,664,415 | 2,636,183 | 2,632,824 | 2,171,926 | 2,171,368 | 2,150,787 | 2,092,818 | 2,065,775 | 2,000,116 |
| Existing City Debt Service after FY 2014 Reversion | - | - | 1,018,373 | 1,022,134 | 1,018,728 | 1,014,225 | 828,647 | 826,288 | 634,941 | 635,155 |
| Debt Service for New Facility | - | - | - | - | 1,843,752 | 1,843,068 | 1,842,353 | 1,841,607 | 1,840,826 | 1,840,011 |
| Total Debt Service | 2,757,127 | 2,664,415 | 3,654,556 | 3,654,958 | 5,034,406 | 5,028,662 | 4,821,788 | 4,760,713 | 4,541,542 | 4,475,282 |
| NET CASH SURPLUS/(DEFICIT) | 219,602 | 348,661 | 9,396 | 48,317 | $(91,008)$ | 1,319 | 292,465 | 442,167 | 755,669 | 919,474 |
| Debt Service Coverage (Minimum of 1.15x Required) | 1.08 | 1.13 | 1.00 | 1.01 | 0.98 | 1.00 | 1.06 | 1.09 | 1.17 | 1.21 |
| Projected Water Sale Rate | \$5.40 | \$5.51 | \$5.62 | \$5.73 | \$5.85 | \$5.96 | \$6.08 | \$6.20 | \$6.33 | \$6.45 |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| Minimum Water Rate to Achieve 1.15x coverage | \$5.70 | \$5.58 | \$6.42 | \$6.47 | \$7.08 | \$7.05 | \$6.70 | \$6.59 | \$6.22 | \$6.11 |

${ }^{1}$ The sum of $\$ 196,400$ for expanding Highpoint WTP to 1.0 MGD and $\$ 439,700$ for Constructing the 5.0 MGD WTP from Page 20 Table 6 of the PER.
${ }^{2}$ Full purchases from Lynchburg for FY 2012-FY 2015 and 100,000 gallons per day purchased thereafter.

## VII. Comparison of Case I and Case III

We compared 'Case I- Pro-Forma with Continuing Water Purchases' to 'Case III- Pro-Forma with the New Facility Built in Three Phases' by looking at the Projected Water Rates needed to achieve a balanced budget. Case I has 2 years where the net revenues available to pay debt service are not projected to produce a balanced budget in FY 2016 and FY 2017. Case III has 1 year where the net revenues available to pay debt service are not projected to produce a balanced budget in FY 2016, and the deficit is only $\$ 91,008$ in that year. Under Case I, the maximum water rate required to achieve a balanced budget is $\$ 6.04$ per thousand in FY 2017. Under Case III, the maximum water rate required to achieve a balanced budget increases to $\$ 5.98$ per thousand in FY 2016. In both cases, by FY 2018, the projected water rate will exceed the rate required to achieve a balanced budget.

Chart 6, below, shows the projected water rate needed for a balanced budget under Case I and Case III, and compares those to the Authority's projected water rate, assuming $2.0 \%$ growth rate. The red line shows the projected water rate needed to achieve a balanced budget under Case I. The blue line shows the projected water rate needed to achieve a balanced budget under Case III. The green line shows the projected water rate assuming a $2.0 \%$ growth rate. Case I and Case III are relatively similar until FY 2038. That is when the debt service for the Phase 1 financing will be paid in full. In that year, the expenses under Case III will decline by approximately $\$ 1.84$ million per year and the water rate required to achieve a balanced budget will fall to $\$ 3.28$ per thousand.

CHART 6- Projected Water Sales Rate FY 2012-FY 2060


Next, we compared 'Case I- Pro-Forma with Continuing Water Purchases' to 'Case III- Pro-Forma with the New Facility Built in Three Phases' by looking at projected total expenditures. Case I and Case III have the same projected expenditures in FY 2012-FY 2015, before the facility has been constructed and the Authority is continuing to purchase water from the City of Lynchburg as it has been doing historically. From FY 2016-FY 2060, Case III has lower projected expenditures than Case I. The difference ranges from $\$ 10,236$ in FY 2016 to $\$ 5,241,108$ in FY 2060. Over the entire term of the projections, Case I has total projected expenditures from FY 2012 to FY 2060 of $\$ 517,438,046$. Total Projected Expenditures under Case III from FY 2012 to FY 2060 equals $\$ 437,223,603$. The difference in Projected Total Expenditures is $\$ 80,214,444$.

Chart 7, below, shows the projected total expenditures under Case I and Case III. The red line shows the projected expenditures under Case I. The blue line shows the projected expenditures under Case III. One thing to keep in mind is that these projections only look at the additional expenses associated with this project and do not attempt to project other capital needs the Authority may have over time; however, the facility fees collected from new development connections have been removed from the revenue projections, and could be used for other minor capital needs.

CHART 7- Projected Expenditures FY 2012-FY 2060


## VIII. Case IV - Provide Water to the Forest Area from Lakes Central Water System in Three Phases with No City Reversion Agreement

For Case IV, we assumed the Authority would build a $\$ 33.9$ million facility in three phases to bring water from Smith Mountain Lake to Bedford City and to Forest. The phased approach would have \$24.0 million of project costs bond financed in 2014, $\$ 5.0$ million bond financed in 2024 and $\$ 4.9$ million bond financed in 2034. This is the same as Case III. However, this case also excludes all projected revenue and debt service associated with the City Reversion Agreement. For Case IV, we have assumed that the two operations would not be incorporated into a single new Authority. We have assumed there would not be any pro-forma revenues from the City's operations and the Authority would not be paying the City's water and sewer fund debt service. We have eliminated the net pro-forma surplus from the City's operations of approximately $\$ 630,000$ per fiscal year and the $\$ 1.0$ million in debt service for FY 2012, declining to $\$ 635,000$ by FY 2026.

Similar to Cases II and III, we are conservatively assuming the Authority would incur approximately $\$ 196,400$ in additional operating costs for Phase 1a of the WTP and $\$ 439,700$ in additional operating costs for Phase 1b of the WTP starting in FY 2016. We used the same estimates because the projects being constructed during Phase 1 are those that would incur the large majority of the operating costs. We did not assume any additional operating costs would be incurred when Phase 2 and Phase 3 are constructed in 2024 and 2034, because the full operating costs were included in Phase 1. Also, similar to Case II, we assumed that the Authority would continue to purchase 100,000 gallons of water per day or $36,500,000$ gallons of water per year from the City of Lynchburg from FY 2016 to the end of the end forecast period. The financing assumptions for Case III are shown below.

- $\$ 33,900,000$ in project costs bond financed with three bond issues
- \$24,000,000 financed in FY 2014
- \$5,000,000 financed in FY 2024
- $\$ 4,900,000$ financed in FY 2034
- $\$ 3,300,000$ in capitalized interest bond financed to pay interest on the Bonds
- $\$ 2,300,000$ in capitalized interest financed in FY 2014 to pay the interest on the bonds for FY 2014 and FY 2015
- $\$ 500,000$ in capitalized interest financed in FY 2024 to pay the interest on the bonds for FY 2024 and FY 2025
- $\$ 500,000$ in capitalized interest financed in FY 2034 to pay the interest on the bonds for FY 2034 and FY 2035
- Each bond issue would have 2 years of interest only and then 23 years of amortization for a 25 year final maturity
- Assumed interest rate of $4.50 \%$
- Phase 1 bonds amortized over 23 years to achieve level debt service of approximately $\$ 1.84$ million per year from FY 2016-FY 2038
- Phase 2 bonds amortized over 23 years to achieve level debt service of approximately $\$ 385,000$ per year from FY 2026-FY 2048
- Phase 3 bonds amortized over 23 years to achieve level debt service of approximately \$375,000 per year from FY 2036-FY 2058
- $\$ 196,400$ in additional annual operations costs added in FY 2016 for WTP Phase 1a, expanding the Highpoint WTP to 1.0 MGD and $\$ 439,700$ in additional annual operations costs added in FY 2016 for WTP Phase 1b, constructing the 5.0 MGD WTP
- Additional operating expenses grow at 2.0\%.
- Continuing water purchases from the City of Lynchburg of 100,000 gallons per day or $36,500,000$ gallons per year.
- Ongoing Water purchase expenses from the City of Lynchburg grow at 3.0\%.

For Case IV, as is shown in 'Chart 8 Pro-Forma with New Facility Built in Three Phases', the model projects that the Authority would generate net revenues available to pay debt service of at least 1.0 times in every fiscal year. Debt service coverage ranges from 1.08x in FY 2016 to $1.24 x$ in FY 2021. As is shown in the blue shaded row on Chart 8, the minimum water rate needed for a balanced budget ranges from $\$ 5.07$ per thousand in FY 2012 to $\$ 5.40$ per thousand in FY 2016 and FY 2017. However, by FY 2021, the minimum water rate needed for a balanced budget is projected to decline to $\$ 5.19$ per thousand. Please see Chart 8 below for the 'Pro-Forma with New Facility Built in Three Phases and No City Reversion Agreement'. Case IV supporting analysis can be found in Appendix E.

CHART 8- Pro-Forma with New Facility Built in Three Phases and No City Reversion Agreement

| Bedford County Public Service Authority Appendix E- Pro-Forma with New Facility in Three Phases and No City Reversion Agreement |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Revenue Sources | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
| Water Sales | \$4,597,798 | \$4,715,423 | \$4,836,387 | \$4,960,791 | \$5,088,735 | \$5,220,324 | \$5,355,666 | \$5,494,873 | \$5,638,058 | \$5,785,339 |
| Sewer Sales | 1,083,770 | 1,112,637 | 1,142,337 | 1,172,894 | 1,204,335 | 1,236,686 | 1,269,973 | 1,304,226 | 1,339,471 | 1,375,740 |
| Penalties | 42,000 | 42,840 | 43,697 | 44,571 | 45,462 | 46,371 | 47,299 | 48,245 | 49,210 | 50,194 |
| Facility Fees | - | - | - | - | - | - |  | - | - | - |
| Administrative Fees | 57,650 | 58,803 | 59,979 | 61,179 | 62,402 | 63,650 | 64,923 | 66,222 | 67,546 | 68,897 |
| Interest | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 |
| Rental \& Service Charges | 108,710 | 110,884 | 113,102 | 115,364 | 117,671 | 120,025 | 122,425 | 124,874 | 127,371 | 129,919 |
| Contract Operations | 92,000 | 93,840 | 95,717 | 97,631 | 99,584 | 101,575 | 103,607 | 105,679 | 107,793 | 109,949 |
| Miscellaneous | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 |
| Bedford County CIP Contribution for Debt | 1,996,485 | 2,000,000 | 2,000,000 | 2,000,000 | 1,993,831 | 1,995,615 | 1,992,132 | 1,989,944 | 1,990,298 | 1,990,595 |
| Revenue from Operations | 7,984,413 | 8,140,427 | 8,297,219 | 8,458,429 | 8,618,020 | 8,790,247 | 8,962,026 | 9,140,061 | 9,325,747 | 9,516,632 |
| Other Non Operating Revenue Sources |  |  |  |  |  |  |  |  |  |  |
| Net Surplus from City of Bedford Pro Forma after 2014 Reversion | - | - | - | - | - | - | - | - | - | - |
| DEQ Contributions for Capital Projects | - | - | - |  | - | - | - | - | - |  |
| Line Dedications | - | - | - | - | - | - | - | - | - |  |
| Prepay Redemptions | - | - | - | - | - | - | - | - | - |  |
| Miscellaneous | - | - | - | - | - | - | - | - | - |  |
| Other Revenue \& Support | - | - | - | - | - | - | - | - | - |  |
| total revenues | \$7,984,413 | \$8,140,427 | \$8,297,219 | \$8,458,429 | \$8,618,020 | \$8,790,247 | \$8,962,026 | \$9,140,061 | \$9,325,747 | \$9,516,632 |
| Operating Expenditures | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
| Personnel Costs | 1,889,807 | 1,927,603 | 1,966,155 | 2,005,478 | 2,045,588 | 2,086,500 | 2,128,230 | 2,170,794 | 2,214,210 | 2,258,494 |
| Administration | 246,504 | 251,434 | 256,463 | 261,592 | 266,824 | 272,160 | 277,604 | 283,156 | 288,819 | 294,595 |
| Customer Service and Billing Costs | 75,022 | 76,522 | 78,053 | 79,614 | 81,206 | 82,830 | 84,487 | 86,177 | 87,900 | 89,658 |
| Design \& Facilities Services | 27,757 | 28,312 | 28,878 | 29,456 | 30,045 | 30,646 | 31,259 | 31,884 | 32,522 | 33,172 |
| Vehicle \& Equipment Services | 116,449 | 118,778 | 121,154 | 123,577 | 126,048 | 128,569 | 131,140 | 133,763 | 136,439 | 139,167 |
| Increased Expenditures from New Facility ${ }^{1}$ | - | - | - | - | 636,100 | 648,822 | 661,798 | 675,034 | 688,535 | 702,306 |
|  | 2,355,539 | 2,402,650 | 2,450,703 | 2,499,717 | 3,185,811 | 3,249,527 | 3,314,518 | 3,380,808 | 3,448,424 | 3,517,393 |
| Water Purchases from Lynchburg ${ }^{2}$ | 1,738,456 | 1,790,609 | 1,844,328 | 1,899,657 | 115,027 | 118,478 | 122,032 | 125,693 | 129,464 | 133,348 |
| Other Water Operations | 336,384 | 343,112 | 349,974 | 356,974 | 364,113 | 371,396 | 378,823 | 386,400 | 394,128 | 402,010 |
| Total Water Operations | 2,074,840 | 2,133,721 | 2,194,302 | 2,256,631 | 479,140 | 489,873 | 500,856 | 512,093 | 523,592 | 535,358 |
| Sewer Treatment Purchases from Lynchburg | 212,826 | 219,211 | 225,787 | 232,560 | 239,537 | 246,723 | 254,125 | 261,749 | 269,601 | 277,689 |
| Other Sewer Operations | 319,479 | 325,869 | 332,386 | 339,034 | 345,815 | 352,731 | 359,785 | 366,981 | 374,321 | 381,807 |
| Total Sewer Operations | 532,305 | 545,079 | 558,173 | 571,594 | 585,352 | 599,454 | 613,911 | 628,730 | 643,922 | 659,497 |
| Contract Operations | 45,000 | 45,900 | 46,818 | 47,754 | 48,709 | 49,684 | 50,677 | 51,691 | 52,725 | 53,779 |
| Direct Operating Expenses | 5,007,684 | 5,127,350 | 5,249,996 | 5,375,697 | 4,299,013 | 4,388,539 | 4,479,961 | 4,573,322 | 4,668,663 | 4,766,027 |
| Additional Fund Balance available to Pay Debt Service | - | - | - | - | - | - | - | - | - | - |
| net revenues available to pay debt service | 2,976,729 | 3,013,076 | 3,047,223 | 3,082,733 | 4,319,007 | 4,401,708 | 4,482,064 | 4,566,739 | 4,657,084 | 4,750,605 |
| Existing Authority Debt Service | 2,757,127 | 2,664,415 | 2,636,183 | 2,632,824 | 2,171,926 | 2,171,368 | 2,150,787 | 2,092,818 | 2,065,775 | 2,000,116 |
| Existing City Debt Service after FY 2014 Reversion | - | - | - | - | - | - | - | - | - | - |
| Debt Service for New Facility | - | - | - | - | 1,843,752 | 1,843,068 | 1,842,353 | 1,841,607 | 1,840,826 | 1,840,011 |
| Total Debt Service | 2,757,127 | 2,664,415 | 2,636,183 | 2,632,824 | 4,015,678 | 4,014,437 | 3,993,141 | 3,934,425 | 3,906,601 | 3,840,127 |
| NET CASH SURPLUS/(DEFICIT) | 219,602 | 348,661 | 411,040 | 449,908 | 303,329 | 387,271 | 488,923 | 632,314 | 750,482 | 910,479 |
| Debt Service Coverage (Minimum of 1.15x Required) | 1.08 | 1.13 | 1.16 | 1.17 | 1.08 | 1.10 | 1.12 | 1.16 | 1.19 | 1.24 |
| Projected Water Sale Rate | \$5.40 | \$5.51 | \$5.62 | \$5.73 | \$5.85 | \$5.96 | \$6.08 | \$6.20 | \$6.33 | \$6.45 |
| Projected Sewer Sale Rate | \$7.00 | \$7.14 | \$7.28 | \$7.43 | \$7.58 | \$7.73 | \$7.88 | \$8.04 | \$8.20 | \$8.37 |
| Minimum Water Rate to Achieve 1.00x coverage (Balanced Budget) | \$5.07 | \$4.98 | \$5.00 | \$5.07 | \$5.40 | \$5.40 | \$5.38 | \$5.30 | \$5.27 | \$5.19 |
| Minimum Water Rate to Achieve 1.15x coverage | \$5.70 | \$5.58 | \$5.59 | \$5.65 | \$6.28 | \$6.27 | \$6.24 | \$6.14 | \$6.10 | \$5.99 |

## IX. Comparison of Case I and Case IV

We compared 'Case I Revised- Pro-Forma with Continuing Water Purchases and No \$8.5 million Project’ to 'Case IV- Pro-Forma with the New Facility Built in Three Phases and No City Reversion Agreement' by looking at the projected water rates needed to achieve a balanced budget. In this comparison, we also revised Case I to exclude the debt service for the $\$ 8.5$ million water line from Forest to Bedford City. Without the debt service for that project included in the Case I Revised, the net revenues available to pay debt service are projected to produce a balanced budget in every fiscal year. Case I Revised supporting analysis can be found in Appendix F. Case IV is also projected to produce a balanced budget in every fiscal year. Under Case I Revised, the maximum water rate required to achieve a balanced budget is $\$ 8.15$ per thousand in FY 2060. Under Case IV, the maximum water rate required to achieve a balanced budget increases to \$6.24 per thousand in FY 2038.

Chart 9, below, shows the projected water rate needed for a balanced budget under Case I Revised and Case IV, and compares those to the Authority's projected water rate, assuming a $2.0 \%$ growth rate. The red line shows the projected water rate needed to achieve a balanced budget under Case I Revised. The blue line shows the projected water rate needed to achieve a balanced budget under Case IV. The green line shows the projected water rate assuming a $2.0 \%$ growth rate. Case I Revised has lower water rates needed for a balanced budget from FY 2016 to FY 2038. In FY 2039, the debt service for the Phase 1 financing will be paid in full. In that year, the expenses under Case IV will decline by approximately $\$ 1.84$ million per year and the water rate required to achieve a balanced budget will fall to $\$ 4.12$ per thousand. Then, Case IV has lower projected water rates than Case I Revised from FY 2039- FY 2060.

CHART 9- Projected Water Sales Rate FY 2012-FY 2060

Water Rate Needed for Balanced Budget

| FY | Case I REVISEDPro Forma with Water Purchases and No $\$ 8.5$ million Project | Case IV- <br> Pro Forma with New Facility in Three <br> Phases with No City Reversion Agreement | Projected Water Rate at 2.0\% Growth |
| :---: | :---: | :---: | :---: |
| 2012 | \$5.07 | \$5.07 | \$5.40 |
| 2013 | \$4.98 | \$4.98 | \$5.51 |
| 2014 | \$5.60 | \$5.00 | \$5.62 |
| 2015 | \$5.66 | \$5.07 | \$5.73 |
| 2016 | \$5.04 | \$5.40 | \$5.85 |
| 2017 | \$5.10 | \$5.40 | \$5.96 |
| 2018 | \$4.87 | \$5.38 | \$6.08 |
| 2019 | \$4.86 | \$5.30 | \$6.20 |
| 2020 | \$4.62 | \$5.27 | \$6.33 |
| 2021 | \$4.61 | \$5.19 | \$6.45 |
| 2022 | \$4.67 | \$5.18 | \$6.58 |
| 2023 | \$4.75 | \$5.19 | \$6.71 |
| 2024 | \$4.83 | \$5.20 | \$6.85 |
| 2025 | \$4.91 | \$5.20 | \$6.99 |
| 2026 | \$4.99 | \$5.72 | \$7.13 |
| 2027 | \$4.25 | \$5.73 | \$7.27 |
| 2028 | \$4.34 | \$5.73 | \$7.41 |
| 2029 | \$4.43 | \$5.74 | \$7.56 |
| 2030 | \$4.53 | \$5.74 | \$7.71 |
| 2031 | \$4.63 | \$5.75 | \$7.87 |
| 2032 | \$4.73 | \$5.75 | \$8.02 |
| 2033 | \$4.83 | \$5.76 | \$8.18 |
| 2034 | \$4.93 | \$5.76 | \$8.35 |
| 2035 | \$5.03 | \$5.77 | \$8.52 |
| 2036 | \$5.14 | \$6.23 | \$8.69 |
| 2037 | \$5.24 | \$6.23 | \$8.86 |
| 2038 | \$5.35 | \$6.24 | \$9.04 |
| 2039 | \$5.46 | \$4.12 | \$9.22 |
| 2040 | \$5.57 | \$4.15 | \$9.40 |
| 2041 | \$5.68 | \$4.18 | \$9.59 |
| 2042 | \$5.80 | \$4.20 | \$9.78 |
| 2043 | \$5.91 | \$4.23 | \$9.98 |
| 2044 | \$6.03 | \$4.26 | \$10.18 |
| 2045 | \$6.15 | \$4.28 | \$10.38 |
| 2046 | \$6.27 | \$4.31 | \$10.59 |
| 2047 | \$6.39 | \$4.34 | \$10.80 |
| 2048 | \$6.51 | \$4.37 | \$11.02 |
| 2049 | \$6.64 | \$3.99 | \$11.24 |
| 2050 | \$6.77 | \$4.02 | \$11.46 |
| 2051 | \$6.90 | \$4.06 | \$11.69 |
| 2052 | \$7.03 | \$4.09 | \$11.92 |
| 2053 | \$7.16 | \$4.12 | \$12.16 |
| 2054 | \$7.29 | \$4.15 | \$12.41 |
| 2055 | \$7.43 | \$4.18 | \$12.65 |
| 2056 | \$7.57 | \$4.21 | \$12.91 |
| 2057 | \$7.71 | \$4.24 | \$13.16 |
| 2058 | \$7.85 | \$4.28 | \$13.43 |
| 2059 | \$8.00 | \$3.95 | \$13.70 |
| 2060 | \$8.15 | \$3.99 | \$13.97 |

## Bedford County Public Service Authority Projected Water Sale Rates FY 2015 - FY 2060



Next, we compared 'Case I Revised- Pro-Forma with Continuing Water Purchases and No \$8.5 million Project' to 'Case IV- Pro-Forma with the New Facility Built in Three Phases and No City Reversion Agreement' by looking at projected total expenditures. Case I Revised and Case IV have the same projected expenditures in FY 2012 and FY 2013, before the Reversion Agreement takes effect. From FY 2014-FY 2026, Case IV has lower projected expenditures than Case I Revised. Then, from FY 2027 to FY 2038, when the debt service for Phase 2 and Phase 3 of the financing are added, Case I Revised has lower expenditures than Case IV. Over the entire term of the projections, Case I Revised has total projected expenditures from FY 2012 to FY 2060 of $\$ 502,608,471$. Total projected expenditures under Case IV from FY 2012 to FY 2060 equals $\$ 427,048,117$. The difference in projected total expenditures is $\$ 75,560,354$.

Case IV (Without the City Reversion Agreement) is slightly worse from a projected total expenditures standpoint, than Case III (With the City Reversion Agreement). The difference in projected total expenditures for Case III is $\$ 80,214,444$, while the difference for Case IV is projected to be $\$ 75,560,354$.

Chart 10, below, shows the projected total expenditures under Case I Revised and Case IV. The red line shows the projected expenditures under Case I Revised. The blue line shows the projected expenditures under Case IV. One thing to keep in mind is that these projections only look at the additional expenses associated with this project and do not attempt to project other capital needs the Authority may have over time; however, the facility fees collected from new development connections have been removed from the revenue projections, and could be used for other minor capital needs.

CHART 10- Projected Expenditures FY 2012-FY 2060

Projected Total Expenditure

| TOTAL | 502,608,471 | 427,048,117 | \$75,560,354 |
| :---: | :---: | :---: | :---: |
| FY | Case I <br> REVISED- Pro <br> Forma with Water <br> Purchases and No $\$ 8.5$ million Project | Case IV- Pro <br> Forma with <br> New Facility <br> in Three <br> Phases and <br> No City <br> Reversion <br> Agreement | Difference |
| 2012 | \$7,764,811 | \$7,764,811 | \$0 |
| 2013 | 7,791,765 | 7,791,765 | - |
| 2014 | 8,904,552 | 7,886,179 | 1,018,373 |
| 2015 | 9,030,655 | 8,008,521 | 1,022,134 |
| 2016 | 8,695,187 | 8,314,691 | 380,496 |
| 2017 | 8,822,179 | 8,402,975 | 419,204 |
| 2018 | 8,751,372 | 8,473,102 | 278,270 |
| 2019 | 8,829,782 | 8,507,747 | 322,035 |
| 2020 | 8,753,604 | 8,575,264 | 178,339 |
| 2021 | 8,833,935 | 8,606,154 | 227,781 |
| 2022 | 8,969,307 | 8,690,547 | 278,761 |
| 2023 | 9,125,309 | 8,793,753 | 331,556 |
| 2024 | 8,256,455 | 7,871,104 | 385,351 |
| 2025 | 8,415,419 | 7,973,184 | 442,235 |
| 2026 | 8,574,720 | 8,460,862 | 113,858 |
| 2027 | 7,153,548 | 7,614,944 | $(461,396)$ |
| 2028 | 7,327,020 | 7,726,498 | $(399,478)$ |
| 2029 | 7,504,872 | 7,840,398 | $(335,525)$ |
| 2030 | 7,687,222 | 7,956,694 | $(269,473)$ |
| 2031 | 7,874,185 | 8,075,439 | $(201,254)$ |
| 2032 | 8,065,885 | 8,196,683 | $(130,799)$ |
| 2033 | 8,262,445 | 8,320,481 | $(58,036)$ |
| 2034 | 8,463,993 | 8,446,886 | 17,108 |
| 2035 | 8,670,662 | 8,575,953 | 94,708 |
| 2036 | 8,882,585 | 9,086,306 | $(203,721)$ |
| 2037 | 9,099,902 | 9,220,730 | $(120,828)$ |
| 2038 | 9,322,756 | 9,357,985 | $(35,229)$ |
| 2039 | 9,551,292 | 7,681,007 | 1,870,285 |
| 2040 | 9,785,662 | 7,825,986 | 1,959,675 |
| 2041 | 10,026,019 | 7,974,065 | 2,051,954 |
| 2042 | 10,272,522 | 8,125,310 | 2,147,213 |
| 2043 | 10,525,336 | 8,279,791 | 2,245,544 |
| 2044 | 10,784,626 | 8,437,580 | 2,347,046 |
| 2045 | 11,050,565 | 8,598,749 | 2,451,817 |
| 2046 | 11,323,331 | 8,763,371 | 2,559,960 |
| 2047 | 11,603,105 | 8,931,523 | 2,671,582 |
| 2048 | 11,890,074 | 9,103,283 | 2,786,791 |
| 2049 | 12,184,429 | 8,898,722 | 3,285,707 |
| 2050 | 12,486,367 | 9,078,328 | 3,408,039 |
| 2051 | 12,796,092 | 9,261,803 | 3,534,289 |
| 2052 | 13,113,812 | 9,449,231 | 3,664,581 |
| 2053 | 13,439,740 | 9,640,701 | 3,799,039 |
| 2054 | 13,774,096 | 9,836,301 | 3,937,795 |
| 2055 | 14,117,105 | 10,036,123 | 4,080,983 |
| 2056 | 14,469,001 | 10,240,261 | 4,228,741 |
| 2057 | 14,830,022 | 10,448,810 | 4,381,212 |
| 2058 | 15,200,412 | 10,661,869 | 4,538,543 |
| 2059 | 15,580,423 | 10,506,440 | 5,073,983 |
| 2060 | 15,970,315 | 10,729,207 | 5,241,108 |
| TOTAL | \$502,608,471 | \$427,048,117 | \$75,560,354 |



## X. Conclusion

The Authority has many variables to consider when deciding on its future capital plans including projected growth in water and sewer demand in Bedford County and Bedford City, projected future water purchase rates from the City of Lynchburg, increases in the expenses of the Authority associated with the new facility and the projected timing of capital expenditures. A change in any of these variables can drastically alter the financial impact of future capital projects.

The Authority also has a variety of financing options to consider. Building the new facility is more expensive in the short-term with the total expenditures under Case II exceeding the total expenditures under Case I from FY 2016-FY2029. However, based upon the assumptions we used and a planning horizon of 2060, building the new facility will be a less expensive long term option for the Authority. In our analysis of Case II, constructing the $\$ 33.9$ million project from Smith Mountain Lake in one phase is projected to save the Authority $\$ 80,695,403$ by 2060 if this option is chosen over the Case I option of continuing to purchase the majority of the Authority's water from the City of Lynchburg. When comparing Case I and Case III, building the new facility in three phases has lower projected total expenditures from FY 2012 to FY 2060 of $\$ 80,214,444$. Furthermore, if the Authority is comfortable phasing the project, Case III illustrates a scenario that eliminates the differential in the shorter term while still providing financial justification over the longer term. Finally, when comparing Case I Revised and Case IV, removing the City's revenues and debt service from the pro-forma and building the new facility in three phases has lower projected total expenditures from FY 2012 to FY 2060 of $\$ 75,560,354$.

Appendix A
Model Assumptions

| Bedford County Public Service Authority Appendix A-Model Assumptions |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Proposed Usage Rate for Water (per 1000) | \$5.40 |  | County Water Revenue Growth Rate (2014-2020) |  |  |  | 2.00\% |
| Proposed Usage Rate for Sewer (per 1000) | \$7.00 |  | County Sewer Revenue Growth Rate (2014-2020) |  |  |  | 2.00\% |
| Proposed Minimum Rate (every other month) | \$20.00 |  | Other Revenue Growth Rate (2014-2020) |  |  |  | 2.00\% |
|  |  |  | City of Bedford | ater Revenue | owth Rate |  | 0.50\% |
| Water Accounts as of 6/30/2011 |  |  | City of Bedford Sewer Revenue Growth Rate |  |  |  | 0.50\% |
| Forest | 7,219 |  | County Expendit | Growth Rat |  |  | 2.00\% |
| Lake | 1,310 |  | City Expenditure | rowth Rate |  |  | 0.50\% |
| Stewartsville | 142 |  | Forest Water Pu | hase Rate (per | ,000) |  | \$2.80 |
|  | 8,671 |  | Forest Water Pu | hased in FY 20 |  |  | 610,249,528 |
| Sewer Accounts as of 6/30/2011 |  |  | Forest Water Purchased after New Facility |  |  |  | 36,500,000 |
| Forest | 1,377 |  | Lake Water Produced in FY 2012 |  |  |  | 164,973,965 |
| Lake | 193 |  | Lake Water Sold | holesale in FY | 2012 |  | 60,000,000 |
| Montvale | 8 |  | Lake Water Sale Price |  |  |  | \$2.74 |
|  | 1,578 |  | Stewartsville Water Purchase Rate (per 1,000) |  |  |  | \$2.74 |
|  |  |  | Stewartsville Water Purchased In FY 2012 |  |  |  | 10,860,200 |
| Projected Growth Rate in Water \& Sewer Accounts 1.0\% |  |  | Stewartsville Water Purchased after New Facility |  |  |  | - |
| Average Gallons of Water Sold Per Account 75,000 |  |  | Forest Sewer Treatment Purchase Rate (per 1,000) |  |  |  | \$1.67 |
| Average Gallons of Sewer Treated Per Account 80,000 |  |  | Forest Sewer Treatment Purchased in FY 2012 |  |  |  | 127,440,593 |
| Water \& Sewer Purchase Fee (from Lynchburg) Growth Rate | 3.0\% |  |  |  |  |  |  |
| Debt Assumptions: |  |  |  |  |  |  |  |
| Projects | $\begin{gathered} \text { Include } \\ 0=\mathrm{No}, 1=\mathrm{Yes} \end{gathered}$ | $\begin{gathered} \mathrm{FY} \\ \text { Financed } \\ \hline \end{gathered}$ | Project <br> Cost (\$) | $\begin{gathered} \text { Equity } \\ \text { Contribution } \end{gathered}$ | Financing Term ${ }^{3}$ | Interest <br> Rate |  |
| Alternative A2-Supply from Lakes ${ }^{1}$ | 1 | 2014 | 36,900,000 | - | 23 | 4.50\% |  |
| $\$ 8.5$ million Project under Water Purchase Option ${ }^{2}$ | 1 | 2014 | 9,250,000 | - | 23 | 4.50\% |  |
| Project 2 | 0 | 2014 | - |  | 20 | 5.00\% |  |
| Project 3 | 0 | 2016 | - | - | 20 | 5.00\% |  |
| Project 4 | 0 | 2012 | - |  | 20 | 5.00\% |  |
| Project 5 | 0 | 2012 | - | - | 20 | 5.00\% |  |
| Project 6 | 0 | 2012 | - | - | 20 | 5.00\% |  |
| Project 7 | 0 | 2012 | - | - | 20 | 5.00\% |  |
| Total Cost Financed |  |  |  | - |  |  |  |

[^1]Appendix B Case I - Pro-Forma Financial Model with Water Purchases

| Bedford County Public Service Authority <br> Appendix B- Pro-Forma with Continuing Water Purchases <br> Revenue Sources |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| Water Sales | \$4,597,798 | \$4,715,423 | \$4,836,387 | \$4,960,791 | \$5,088,735 | \$5,220,324 | \$5,355,666 | \$5,494,873 | \$5,638,058 | \$5,785,339 | \$5,936,839 |
| Sewer Sales | 1,083,770 | 1,112,637 | 1,142,337 | 1,172,894 | 1,204,335 | 1,236,686 | 1,269,973 | 1,304,226 | 1,339,471 | 1,375,740 | 1,413,062 |
| Penalties | 42,000 | 42,840 | 43,697 | 44,571 | 45,462 | 46,371 | 47,299 | 48,245 | 49,210 | 50,194 | 51,198 |
| Facility Fees | - | - | - | - | - | - | - | - | - | - | - |
| Administrative Fees | 57,650 | 58,803 | 59,979 | 61,179 | 62,402 | 63,650 | 64,923 | 66,222 | 67,546 | 68,897 | 70,275 |
| Interest | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 |
| Rental \& Service Charges | 108,710 | 110,884 | 113,102 | 115,364 | 117,671 | 120,025 | 122,425 | 124,874 | 127,371 | 129,919 | 132,517 |
| Contract Operations | 92,000 | 93,840 | 95,717 | 97,631 | 99,584 | 101,575 | 103,607 | 105,679 | 107,793 | 109,949 | 112,147 |
| Miscellaneous | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 |
| Bedford County CIP Contribution for Debt | 1,996,485 | 2,000,000 | 2,000,000 | 2,000,000 | 1,993,831 | 1,995,615 | 1,992,132 | 1,989,944 | 1,990,298 | 1,990,595 | 1,985,931 |
| Revenue from Operations | 7,984,413 | 8,140,427 | 8,297,219 | 8,458,429 | 8,618,020 | 8,790,247 | 8,962,026 | 9,140,061 | 9,325,747 | 9,516,632 | 9,707,969 |
| Other Non Operating Revenue Sources |  |  |  |  |  |  |  |  |  |  |  |
| Net Surplus from City of Bedford Pro Forma after 2014 Reversion | - | - | 616,729 | 620,543 | 624,390 | 628,272 | 632,189 | 636,140 | 640,127 | 644,150 | 648,210 |
| DEQ Contributions for Capital Projects | - | - |  |  |  | - | - | - | - | - | - |
| Line Dedications | - | - |  |  |  |  |  | - | - | - | - |
| Prepay Redemptions | - | - | - | - | - | - | - | - | - | - | - |
| Miscellaneous | - | - | - |  | - |  | - | - | - | - | - |
| Other Revenue \& Support | - | - | 616,729 | 620,543 | 624,390 | 628,272 | 632,189 | 636,140 | 640,127 | 644,150 | 648,210 |
| total revenues | \$7,984,413 | \$8,140,427 | \$8,913,947 | \$9,078,972 | \$9,242,410 | \$9,418,519 | \$9,594,214 | \$9,776,201 | \$9,965,874 | \$10,160,783 | \$10,356,179 |
| Operating Expenditures | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| Personnel Costs | 1,889,807 | 1,927,603 | 1,966,155 | 2,005,478 | 2,045,588 | 2,086,500 | 2,128,230 | 2,170,794 | 2,214,210 | 2,258,494 | 2,303,664 |
| Administration | 246,504 | 251,434 | 256,463 | 261,592 | 266,824 | 272,160 | 277,604 | 283,156 | 288,819 | 294,595 | 300,487 |
| Customer Service and Billing Costs | 75,022 | 76,522 | 78,053 | 79,614 | 81,206 | 82,830 | 84,487 | 86,177 | 87,900 | 89,658 | 91,451 |
| Design \& Facilities Services | 27,757 | 28,312 | 28,878 | 29,456 | 30,045 | 30,646 | 31,259 | 31,884 | 32,522 | 33,172 | 33,836 |
| Vehicle \& Equipment Services | 116,449 | 118,778 | 121,154 | 123,577 | 126,048 | 128,569 | 131,140 | 133,763 | 136,439 | 139,167 | 141,951 |
| Increased Expenditures from New Facility | - | - | - | - | - | - | - | - | - | - | - |
|  | 2,355,539 | 2,402,650 | 2,450,703 | 2,499,717 | 2,549,711 | 2,600,705 | 2,652,719 | 2,705,774 | 2,759,889 | 2,815,087 | 2,871,389 |
| Water Purchases from Lynchburg | 1,738,456 | 1,790,609 | 1,844,328 | 1,899,657 | 1,956,647 | 2,015,347 | 2,075,807 | 2,138,081 | 2,202,224 | 2,268,290 | 2,336,339 |
| Other Water Operations | 336,384 | 343,112 | 349,974 | 356,974 | 364,113 | 371,396 | 378,823 | 386,400 | 394,128 | 402,010 | 410,051 |
| Total Water Operations | 2,074,840 | 2,133,721 | 2,194,302 | 2,256,631 | 2,320,760 | 2,386,742 | 2,454,630 | 2,524,481 | 2,596,351 | 2,670,301 | 2,746,390 |
| Sewer Treatment Purchases from Lynchburg | 212,826 | 219,211 | 225,787 | 232,560 | 239,537 | 246,723 | 254,125 | 261,749 | 269,601 | 277,689 | 286,020 |
| Other Sewer Operations | 319,479 | 325,869 | 332,386 | 339,034 | 345,815 | 352,731 | 359,785 | 366,981 | 374,321 | 381,807 | 389,443 |
| Total Sewer Operations | 532,305 | 545,079 | 558,173 | 571,594 | 585,352 | 599,454 | 613,911 | 628,730 | 643,922 | 659,497 | 675,463 |
| Contract Operations | 45,000 | 45,900 | 46,818 | 47,754 | 48,709 | 49,684 | 50,677 | 51,691 | 52,725 | 53,779 | 54,855 |
| Direct Operating Expenses | 5,007,684 | 5,127,350 | 5,249,996 | 5,375,697 | 5,504,533 | 5,636,585 | 5,771,938 | 5,910,676 | 6,052,888 | 6,198,664 | 6,348,097 |
| Additional Fund Balance available to Pay Debt ServiceNET REVENUES AVAILABLE TO PAY DEBT SERVICE | - | - | - | - | - | - | - | - | - | - | - |
|  | 2,976,729 | 3,013,076 | 3,663,952 | 3,703,276 | 3,737,878 | 3,781,934 | 3,822,277 | 3,865,526 | 3,912,986 | 3,962,119 | 4,008,082 |
| Existing Authority Debt Service | 2,757,127 | 2,664,415 | 2,636,183 | 2,632,824 | 2,171,926 | 2,171,368 | 2,150,787 | 2,092,818 | 2,065,775 | 2,000,116 | 1,985,931 |
| Existing City Debt Service after FY 2014 Reversion Debt Service for Lines to City ( 88.5 million) | - | - | 1,018,373 | 1,022,134 | 1,018,728 | 1,014,225 | 828,647 | 826,288 | 634,941 | 635,155 | 635,280 |
| Debt Service for Lines to City ( $\$ 8.5$ million) | - | - | - | - | 648,468 | 648,227 | 647,976 | 647,713 | 647,439 | 647,152 | 646,852 |
| Total Debt Service | 2,757,127 | 2,664,415 | 3,654,556 | 3,654,958 | 3,839,122 | 3,833,821 | 3,627,410 | 3,566,819 | 3,348,155 | 3,282,423 | 3,268,063 |
| NET CASH SURPLUS/(DEFICIT) | 219,602 | 348,661 | 9,396 | 48,317 | $(101,244)$ | $(51,887)$ | 194,866 | 298,706 | 564,831 | 679,696 | 740,019 |
| Debt Service Coverage (Minimum of 1.15x Required) | 1.08 | 1.13 | 1.00 | 1.01 | 0.97 | 0.99 | 1.05 | 1.08 | 1.17 | 1.21 | 1.23 |
| Projected Water Sale Rate Projected Sewer Sale Rate | \$5.40 | \$5.51 | \$5.62 | \$5.73 | \$5.85 | \$5.96 | \$6.08 | \$6.20 | \$6.33 | \$6.45 | \$6.58 |
|  | \$7.00 | \$7.14 | \$7.28 | \$7.43 | \$7.58 | \$7.73 | \$7.88 | \$8.04 | \$8.20 | \$8.37 | \$8.53 |
| Minimum Water Rate to Achieve 1.00x coverage (Balanced Budget) | \$5.07 | \$4.98 | \$5.60 | \$5.66 | \$5.99 | \$6.04 | \$5.80 | \$5.78 | \$5.53 | \$5.51 | \$5.56 |
| Minimum Water Rate to Achieve 1.15x coverage | \$5.70 | \$5.58 | \$6.42 | \$6.47 | \$6.84 | \$6.87 | \$6.58 | \$6.54 | \$6.24 | \$6.19 | \$6.24 |


| Bedford County Public Service Authority <br> Appendix B- Pro-Forma with Continuing Water Purchases |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Revenue Sources | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 |
| Water Sales | \$6,092,682 | \$6,252,997 | \$6,417,916 | \$6,587,577 | \$6,762,120 | \$6,941,690 | \$7,126,437 | \$7,316,514 | \$7,512,080 | \$7,713,299 | \$7,920,337 |
| Sewer Sales | 1,451,469 | 1,490,993 | 1,531,668 | 1,573,527 | 1,616,607 | 1,660,943 | 1,706,574 | 1,753,537 | 1,801,873 | 1,851,622 | 1,902,827 |
| Penalties | 52,222 | 53,266 | 54,331 | 55,418 | 56,526 | 57,657 | 58,810 | 59,986 | 61,186 | 62,410 | 63,658 |
| Facility Fees | - | - | - | - | - | - | - | - | - | - | - |
| Administrative Fees | 71,681 | 73,114 | 74,576 | 76,068 | 77,589 | 79,141 | 80,724 | 82,338 | 83,985 | 85,665 | 87,378 |
| Interest | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 |
| Rental \& Service Charges | 135,167 | 137,871 | 140,628 | 143,441 | 146,309 | 149,236 | 152,220 | 155,265 | 158,370 | 161,537 | 164,768 |
| Contract Operations | 114,390 | 116,678 | 119,012 | 121,392 | 123,820 | 126,296 | 128,822 | 131,399 | 134,027 | 136,707 | 139,441 |
| Miscellaneous | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 |
| Bedford County CIP Contribution for Debt | 1,988,484 | 963,066 | 960,213 | 955,173 | - | - | - | - | - | - | - |
| Revenue from Operations | 9,912,095 | 9,093,985 | 9,304,344 | 9,518,596 | 8,788,972 | 9,020,964 | 9,259,588 | 9,505,039 | 9,757,521 | 10,017,240 | 10,284,410 |
| Other Non Operating Revenue Sources |  |  |  |  |  |  |  |  |  |  |  |
| Net Surplus from City of Bedford Pro Forma after 2014 Reversion | 652,307 | 656,441 | 660,614 | 664,825 | 669,075 | 673,366 | 677,696 | 682,068 | 686,481 | 690,936 | 695,433 |
| DEQ Contributions for Capital Projects | - |  | - | - | - | - | - | - | - | - | - |
| Line Dedications | - | - | - | - | - | - | - | - | - | - |  |
| Prepay Redemptions | - | - | - | - | - | - | - | - | - | - |  |
| Miscellaneous | - | - | - | - | - | - | - | - | - | - |  |
| Other Revenue \& Support | 652,307 | 656,441 | 660,614 | 664,825 | 669,075 | 673,366 | 677,696 | 682,068 | 686,481 | 690,936 | 695,433 |
| total revenues | \$10,564,402 | \$9,750,426 | \$9,964,958 | \$10,183,421 | \$9,458,048 | \$9,694,329 | \$9,937,284 | \$10,187,107 | \$10,444,001 | \$10,708,175 | \$10,979,843 |
| Operating Expenditures | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 |
| Personnel Costs | 2,349,737 | 2,396,732 | 2,444,667 | 2,493,560 | 2,543,431 | 2,594,300 | 2,646,186 | 2,699,110 | 2,753,092 | 2,808,154 | 2,864,317 |
| Administration | 306,497 | 312,627 | 318,879 | 325,257 | 331,762 | 338,397 | 345,165 | 352,068 | 359,110 | 366,292 | 373,618 |
| Customer Service and Billing Costs | 93,280 | 95,146 | 97,049 | 98,990 | 100,970 | 102,989 | 105,049 | 107,150 | 109,293 | 111,479 | 113,708 |
| Design \& Facilities Services | 34,512 | 35,203 | 35,907 | 36,625 | 37,357 | 38,104 | 38,867 | 39,644 | 40,437 | 41,245 | 42,070 |
| Vehicle \& Equipment Services | 144,790 | 147,685 | 150,639 | 153,652 | 156,725 | 159,860 | 163,057 | 166,318 | 169,644 | 173,037 | 176,498 |
| Increased Expenditures from New Facility | - | - | - | - | - | - | - | - | - | - | - |
|  | 2,928,817 | 2,987,393 | 3,047,141 | 3,108,084 | 3,170,245 | 3,233,650 | 3,298,323 | 3,364,290 | 3,431,576 | 3,500,207 | 3,570,211 |
| Water Purchases from Lynchburg | 2,406,429 | 2,478,622 | 2,552,981 | 2,629,570 | 2,708,457 | 2,789,711 | 2,873,402 | 2,959,604 | 3,048,392 | 3,139,844 | 3,234,040 |
| Other Water Operations | 418,252 | 426,617 | 435,149 | 443,852 | 452,729 | 461,784 | 471,019 | 480,440 | 490,049 | 499,849 | 509,846 |
| Total Water Operations | 2,824,681 | 2,905,239 | 2,988,130 | 3,073,422 | 3,161,186 | 3,251,495 | 3,344,422 | 3,440,044 | 3,538,441 | 3,639,694 | 3,743,886 |
| Sewer Treatment Purchases from Lynchburg | 294,601 | 303,439 | 312,542 | 321,918 | 331,576 | 341,523 | 351,769 | 362,322 | 373,191 | 384,387 | 395,919 |
| Other Sewer Operations | 397,232 | 405,177 | 413,280 | 421,546 | 429,977 | 438,576 | 447,348 | 456,295 | 465,421 | 474,729 | 484,224 |
| Total Sewer Operations | 691,833 | 708,616 | 725,822 | 743,464 | 761,553 | 780,099 | 799,117 | 818,617 | 838,612 | 859,116 | 880,143 |
| Contract Operations | 55,952 | 57,071 | 58,212 | 59,377 | 60,564 | 61,775 | 63,011 | 64,271 | 65,557 | 66,868 | 68,205 |
| Direct Operating Expenses | 6,501,282 | 6,658,318 | 6,819,305 | 6,984,347 | 7,153,548 | 7,327,020 | 7,504,872 | 7,687,222 | 7,874,185 | 8,065,885 | 8,262,445 |
| Additional Fund Balance available to Pay Debt Service NET REVENUES AVAILABLE TO PAY DEBT SERVICE | - | - | - | - | - | - | - | - | - | - | - |
|  | 4,063,120 | 3,092,108 | 3,145,653 | 3,199,074 | 2,304,499 | 2,367,310 | 2,432,411 | 2,499,885 | 2,569,816 | 2,642,291 | 2,717,398 |
| Existing Authority Debt Service | 1,988,484 | 963,066 | 960,213 | 955,173 | - | - | - | - | - | - | - |
| Existing City Debt Service after FY 2014 Reversion | 635,542 | 635,071 | 635,901 | 635,201 | - | - | - | - | - | $\bigcirc{ }^{-}$ | ${ }^{-}$ |
| Debt Service for Lines to City ( $\$ 8.5$ million) | 646,539 | 646,212 | 645,870 | 645,512 | 645,139 | 644,748 | 644,340 | 643,914 | 643,469 | 643,003 | 642,517 |
| Total Debt Service | 3,270,565 | 2,244,348 | 2,241,983 | 2,235,886 | 645,139 | 644,748 | 644,340 | 643,914 | 643,469 | 643,003 | 642,517 |
| NET CASH SURPLUS/(DEFICIT) | 792,555 | 847,759 | 903,670 | 963,189 | 1,659,361 | 1,722,561 | 1,788,071 | 1,855,971 | 1,926,348 | 1,999,288 | 2,074,882 |
| Debt Service Coverage (Minimum of 1.15x Required) | 1.24 | 1.38 | 1.40 | 1.43 | 3.57 | 3.67 | 3.78 | 3.88 | 3.99 | 4.11 | 4.23 |
| Projected Water Sale Rate | \$6.71 | \$6.85 | \$6.99 | \$7.13 | \$7.27 | \$7.41 | \$7.56 | \$7.71 | \$7.87 | \$8.02 | \$8.18 |
| Projected Sewer Sale Rate | \$8.70 | \$8.88 | \$9.06 | \$9.24 | \$9.42 | \$9.61 | \$9.80 | \$10.00 | \$10.20 | \$10.40 | \$10.61 |
| Minimum Water Rate to Achieve 1.00x coverage (Balanced Budget) | \$5.63 | \$5.70 | \$5.78 | \$5.85 | \$5.09 | \$5.18 | \$5.26 | \$5.35 | \$5.44 | \$5.53 | \$5.62 |
| Minimum Water Rate to Achieve 1.15x coverage | \$6.30 | \$6.16 | \$6.23 | \$6.29 | \$5.22 | \$5.30 | \$5.39 | \$5.47 | \$5.56 | \$5.65 | \$5.74 |


| Bedford County Public Service Authority <br> Appendix B- Pro-Forma with Continuing Water Purchases |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Revenue Sources | 2034 | 2035 | 2036 | 2037 | 2038 | 2039 | 2040 | 2041 | 2042 | 2043 |
| Water Sales | \$8,133,369 | \$8,352,573 | \$8,578,133 | \$8,810,238 | \$9,049,083 | \$9,294,869 | \$9,547,802 | \$9,808,096 | \$10,075,971 | \$10,351,652 |
| Sewer Sales | 1,955,531 | 2,009,780 | 2,065,618 | 2,123,094 | 2,182,257 | 2,243,158 | 2,305,847 | 2,370,379 | 2,436,809 | 2,505,193 |
| Penalties | 64,931 | 66,230 | 67,554 | 68,905 | 70,284 | 71,689 | 73,123 | 74,585 | 76,077 | 77,599 |
| Facility Fees | - | - | - | - | - | - | - | - | - | - |
| Administrative Fees | 89,126 | 90,908 | 92,726 | 94,581 | 96,473 | 98,402 | 100,370 | 102,377 | 104,425 | 106,513 |
| Interest | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 |
| Rental \& Service Charges | 168,063 | 171,425 | 174,853 | 178,350 | 181,917 | 185,556 | 189,267 | 193,052 | 196,913 | 200,851 |
| Contract Operations | 142,230 | 145,075 | 147,976 | 150,936 | 153,954 | 157,034 | 160,174 | 163,378 | 166,645 | 169,978 |
| Miscellaneous | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 |
| Bedford County CIP Contribution for Debt | - | - | - | - | - | - | - | - | - | - |
| Revenue from Operations | 10,559,251 | 10,841,990 | 11,132,862 | 11,432,105 | 11,739,968 | 12,056,707 | 12,382,583 | 12,717,868 | 13,062,840 | 13,417,787 |
| Other Non Operating Revenue Sources |  |  |  |  |  |  |  |  |  |  |
| Net Surplus from City of Bedford Pro Forma after 2014 Reversion | 699,975 | 704,560 | 709,190 | 713,865 | 718,586 | 723,353 | 728,168 | 733,031 | 737,943 | 742,904 |
| DEQ Contributions for Capital Projects | - | - | - | - | - | - | - | - | - | - |
| Line Dedications | - | - |  |  | - | - | - | - | - |  |
| Prepay Redemptions | - | - | - | - | - | - | - | - | - |  |
| Miscellaneous | - | - | - | - | - | - | - | - | - |  |
| Other Revenue \& Support | 699,975 | 704,560 | 709,190 | 713,865 | 718,586 | 723,353 | 728,168 | 733,031 | 737,943 | 742,904 |
| total revenues | \$11,259,226 | \$11,546,550 | \$11,842,051 | \$12,145,969 | \$12,458,554 | \$12,780,060 | \$13,110,751 | \$13,450,899 | \$13,800,784 | \$14,160,692 |
| Operating Expenditures | 2034 | 2035 | 2036 | 2037 | 2038 | 2039 | 2040 | 2041 | 2042 | 2043 |
| Personnel Costs | 2,921,603 | 2,980,035 | 3,039,636 | 3,100,429 | 3,162,437 | 3,225,686 | 3,290,200 | 3,356,004 | 3,423,124 | 3,491,586 |
| Administration | 381,090 | 388,712 | 396,486 | 404,416 | 412,504 | 420,754 | 429,169 | 437,753 | 446,508 | 455,438 |
| Customer Service and Billing Costs | 115,982 | 118,302 | 120,668 | 123,082 | 125,543 | 128,054 | 130,615 | 133,227 | 135,892 | 138,610 |
| Design \& Facilities Services | 42,912 | 43,770 | 44,645 | 45,538 | 46,449 | 47,378 | 48,326 | 49,292 | 50,278 | 51,284 |
| Vehicle \& Equipment Services | 180,028 | 183,628 | 187,301 | 191,047 | 194,868 | 198,765 | 202,741 | 206,795 | 210,931 | 215,150 |
| Increased Expenditures from New Facility | - | - | - | - | - | - | - | - | - |  |
|  | 3,641,615 | 3,714,448 | 3,788,737 | 3,864,511 | 3,941,802 | 4,020,638 | 4,101,050 | 4,183,071 | 4,266,733 | 4,352,068 |
| Water Purchases from Lynchburg | 3,331,061 | 3,430,993 | 3,533,922 | 3,639,940 | 3,749,138 | 3,861,612 | 3,977,461 | 4,096,785 | 4,219,688 | 4,346,279 |
| Other Water Operations | 520,043 | 530,444 | 541,053 | 551,874 | 562,912 | 574,170 | 585,653 | 597,366 | 609,314 | 621,500 |
| Total Water Operations | 3,851,104 | 3,961,437 | 4,074,976 | 4,191,814 | 4,312,050 | 4,435,782 | 4,563,114 | 4,694,151 | 4,829,002 | 4,967,779 |
| Sewer Treatment Purchases from Lynchburg | 407,796 | 420,030 | 432,631 | 445,610 | 458,978 | 472,748 | 486,930 | 501,538 | 516,584 | 532,082 |
| Other Sewer Operations | 493,908 | 503,787 | 513,862 | 524,140 | 534,622 | 545,315 | 556,221 | 567,345 | 578,692 | 590,266 |
| Total Sewer Operations | 901,705 | 923,817 | 946,493 | 969,749 | 993,601 | 1,018,062 | 1,043,151 | 1,068,883 | 1,095,276 | 1,122,348 |
| Contract Operations | 69,569 | 70,960 | 72,380 | 73,827 | 75,304 | 76,810 | 78,346 | 79,913 | 81,511 | 83,141 |
| Direct Operating Expenses | 8,463,993 | 8,670,662 | 8,882,585 | 9,099,902 | 9,322,756 | 9,551,292 | 9,785,662 | 10,026,019 | 10,272,522 | 10,525,336 |
| NET REVENUES AVAILABLE TO PAY DEBT SERVICE | - | - | - | - | - | - | - | - | - | - |
|  | 2,795,232 | 2,875,889 | 2,959,466 | 3,046,067 | 3,135,798 | 3,228,768 | 3,325,090 | 3,424,881 | 3,528,261 | 3,635,356 |
| Existing Authority Debt Service | - | - | - | - | - | - | - | - | - | - |
| Existing City Debt Service after FY 2014 Reversion | - | - | - | - | - | - | - | - | - | - |
| Debt Service for Lines to City ( $\$ 8.5$ million) | 642,008 | 641,477 | 640,922 | 640,342 | 639,736 | (0) | - | - | - | - |
| Total Debt Service | 642,008 | 641,477 | 640,922 | 640,342 | 639,736 | (0) | - | - | - | - |
| NET CASH SURPLUS/(DEFICIT) | 2,153,224 | 2,234,411 | 2,318,544 | 2,405,725 | 2,496,062 | 3,228,768 | 3,325,090 | 3,424,881 | 3,528,261 | 3,635,356 |
| Debt Service Coverage (Minimum of 1.15x Required) | 4.35 | 4.48 | 4.62 | 4.76 | 4.90 | - | - | - | - | - |
| Projected Water Sale Rate | \$8.35 | \$8.52 | \$8.69 | \$8.86 | \$9.04 | \$9.22 | \$9.40 | \$9.59 | \$9.78 | \$9.98 |
| Projected Sewer Sale Rate | \$10.82 | \$11.04 | \$11.26 | \$11.48 | \$11.71 | \$11.95 | \$12.19 | \$12.43 | \$12.68 | \$12.93 |
| $\begin{array}{l}\text { Minimum Water Rate to Achieve 1.00x coverage } \\ \text { Budget) }\end{array}$ | \$5.71 | \$5.81 | \$5.91 | \$6.00 | \$6.10 | \$5.46 | \$5.57 | \$5.68 | \$5.80 | \$5.91 |
| Minimum Water Rate to Achieve 1.15x coverage | \$5.83 | \$5.93 | \$6.02 | \$6.12 | \$6.22 | \$5.46 | \$5.57 | \$5.68 | \$5.80 | \$5.91 |

Appendix B- Pro-Forma with Continuing Water Purchases

## Revenue Sources

Water Sales
Sewer Sales
Penalties
Facility Fees
Administrative Fees
Interest
Rental \& Service Charges
Contract Operation
Miscellaneous
Bedford County CIP Contribution for Deb
Revenue from Operations
Other Non Operating Revenue Sources
Net Surplus from City of Bedford Pro Forma after 2014 Reversion DEQ Contributions for Capital Projects
Line Dedications
Prepay Redemptio
Miscellaneou
Other Revenue \& Support
total revenues
Operating Expenditures
Personnel Costs
Administration
Customer Service and Billing Costs
Design \& Facilities Services
Vehicle \& Equipment Services
Increased Expenditures from New Facility

Water Purchases from Lynchburg
Other Water Operations
Total Water Operations
Other Sewer Operations
Total Sewer Operations
Contract Operations
Direct Operating Expenses
Additional Fund Balance available to Pay Debt Service NET REVENUES AVAILABLE TO PAY DEBT SERVICE

Existing Authority Debt Service
Existing City Debt Service after FY 2014 Reversion
Debt Service for Lines to City ( $\$ 8.5$ million)
Total Debt Service
NET CASH SURPLUS/(DEFICIT)
Debt Service Coverage (Minimum of 1.15x Required)

| Projected Water Sale Rate Projected Sewer Sale Rate |  | $\begin{aligned} & \$ 10.18 \\ & \$ 13.1 \end{aligned}$ | $\begin{aligned} & \hline \$ 10.38 \\ & \$ 13.46 \end{aligned}$ | $\begin{aligned} & \$ 10.59 \\ & \$ 13.7 \end{aligned}$ | $\begin{aligned} & \hline \$ 10.80 \\ & \$ 14.00 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \$ 11.02 \\ & \$ 14.28 \end{aligned}$ | $\begin{aligned} & \hline \$ 11.24 \\ & \$ 14.56 \end{aligned}$ | $\begin{aligned} & \$ 11.46 \\ & \$ 14.86 \end{aligned}$ | $\begin{aligned} & \$ 11.69 \\ & \$ 15.15 \end{aligned}$ | $\begin{aligned} & \$ 11.92 \\ & \$ 15.46 \end{aligned}$ | $\begin{aligned} & \$ 12.16 \\ & \$ 15.77 \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Minimum Water Rate to Achieve 1.00x coverage Budget) | (Balanced | \$6.03 | \$6.15 | \$6.27 | \$6.39 | \$6.51 | \$6.64 | \$6.77 | \$6.90 | \$7.03 | \$7.16 |
| Minimum Water Rate to Achieve 1.15x coverage |  | \$6.03 | \$6.15 | \$6.27 | \$6.39 | \$6.51 | \$6.64 | \$6.77 | \$6.90 | \$7.03 | \$7.16 |

Bedford County Public Service Authority
Appendix B- Pro-Forma with Continuing Water Purchases
Water Sales
Penalties
Facility Fees
Administrative Fees
Interest
Rental \& Service Charges
Contract Operation
Miscellaneous
Bedford County CIP Contribution for Deb
Revenue from Operations
Other Non Operating Revenue Sources
Net Surplus from City of Bedford Pro Forma after 2014 Reversion DEQ Contributions for Capital Projects
Line Dedications
Prepay Redemp
Miscellaneou
Other Revenue \& Support
total revenues
Operating Expenditures
Personnel Costs
Administration
Customer Service and Billing Costs
Design \& Facilities Services
Vehicle \& Equipment Services
Increased Expenditures from New Facility

Water Purchases from Lynchburg
Other Water Operations
Total Water Operations
Sewer Treatment Purchases from Lynchburg
Other Sewer Operations
Total Sewer Operations
Contract Operations
Direct Operating Expenses
Additional Fund Balance available to Pay Debt Service NET REVENUES AVAILABLE TO PAY DEBT SERVICE

| $\mathbf{2 0 5 4}$ | $\mathbf{2 0 5 5}$ | $\mathbf{2 0 5 6}$ | $\mathbf{2 0 5 7}$ | $\mathbf{2 0 5 8}$ | $\mathbf{2 0 5 9}$ | $\mathbf{2 0 6 0}$ |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| $\$ 13,971,285$ | $\$ 14,360,976$ | $\$ 14,762,113$ | $\$ 15,175,039$ | $\$ 15,600,106$ | $\$ 16,037,679$ | $\$ 16,488,130$ |
| $3,404,493$ | $3,501,442$ | $3,601,259$ | $3,700,031$ | $3,809,848$ | $3,918,799$ | $4,030,980$ |
| 96,484 | 98,414 | 100,382 | 102,390 | 104,438 | 106,526 | 108,657 |
| - | - | - | - | - | - | - |
| 132,436 | 135,085 | 137,787 | 140,542 | 143,353 | 146,220 | 149,145 |
| 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 |
| 249,733 | 254,728 | 259,823 | 265,019 | 270,320 | 275,726 | 281,240 |
| 211,346 | 215,573 | 219,885 | 224,283 | 228,768 | 233,344 | 238,010 |
| 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 |
| - | - | - | - | - | - | - |
| $18,071,779$ | $18,572,218$ | $19,087,249$ | $19,617,304$ | $20,162,833$ | $20,724,294$ | $21,302,163$ |


| 800,969 | 806,586 | 812,264 | 818,003 | 823,805 | 829,669 | 835,598 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| - | - | - | - | - | - | - |
| - | - | - | - | - | - | - |
| - | - | - | - | - | - | - |
| 800,969 | 806,586 | 812,264 | 818,003 | 823,805 | 829,669 | 835,598 |


| $\$ 18,872,748$ | $\$ 19,378,804$ | $\$ 19,899,512$ | $\$ 20,435,308$ | $\$ 20,986,637$ | $\$ 21,553,963$ | $\$ 22,137,761$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |


| 2054 | 2055 | 2056 | 2057 | 2058 | 2059 | 2060 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 4,341,349 | 4,428,176 | 4,516,739 | 4,607,074 | 4,699,215 | 4,793,200 | 4,889,064 |
| 566,280 | 577,606 | 589,158 | 600,941 | 612,960 | 625,219 | 637,723 |
| 172,344 | 175,791 | 179,307 | 182,893 | 186,551 | 190,282 | 194,087 |
| 63,765 | 65,040 | 66,341 | 67,668 | 69,021 | 70,401 | 71,809 |
| 267,512 | 272,862 | 278,319 | 283,886 | 289,563 | 295,355 | 301,262 |
| - | - | - | - | - | - | - |
| 5,411,249 | 5,519,474 | 5,629,863 | 5,742,461 | 5,857,310 | 5,974,456 | 6,093,945 |
| 6,016,266 | 6,196,754 | 6,382,657 | 6,574,137 | 6,771,361 | 6,974,501 | 7,183,737 |
| 772,757 | 788,212 | 803,977 | 820,056 | 836,457 | 853,186 | 870,250 |
| 6,789,023 | 6,984,967 | 7,186,633 | 7,394,193 | 7,607,818 | 7,827,688 | 8,053,987 |
| 736,525 | 758,621 | 781,380 | 804,821 | 828,966 | 853,835 | 879,450 |
| 733,922 | 748,600 | 763,572 | 778,844 | 794,421 | 810,309 | 826,515 |
| 1,470,447 | 1,507,221 | 1,544,952 | 1,583,665 | 1,623,386 | 1,664,144 | 1,705,965 |
| 103,376 | 105,444 | 107,552 | 109,703 | 111,898 | 114,135 | 116,418 |
| 13,774,096 | 14,117,105 | 14,469,001 | 14,830,022 | 15,200,412 | 15,580,423 | 15,970,315 |

Existing Authority Debt Service
Existing City Debt Service after FY 2014 Reversion
Debt Service for Lines to City ( $\$ 8.5$ million)
Total Debt Service

## NET CASH SURPLUS/(DEFICIT)

Debt Service Coverage (Minimum of 1.15x Required)


# Appendix C 

Case II - Pro-Forma Financial Model with New Facility Built in One Phase

| Bedford County Public Service Authority Appendix C- Pro-Forma with New Facility in One Phase |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Revenue Sources | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| Water Sales | \$4,597,798 | \$4,715,423 | \$4,836,387 | \$4,960,791 | \$5,088,735 | \$5,220,324 | \$5,355,666 | \$5,494,873 | \$5,638,058 | \$5,785,339 | \$5,936,839 |
| Sewer Sales | 1,083,770 | 1,112,637 | 1,142,337 | 1,172,894 | 1,204,335 | 1,236,686 | 1,269,973 | 1,304,226 | 1,339,471 | 1,375,740 | 1,413,062 |
| Penalties | 42,000 | 42,840 | 43,697 | 44,571 | 45,462 | 46,371 | 47,299 | 48,245 | 49,210 | 50,194 | 51,198 |
| Facility Fees | - | - | - | - | - | - | - | - | - | - | - |
| Administrative Fees | 57,650 | 58,803 | 59,979 | 61,179 | 62,402 | 63,650 | 64,923 | 66,222 | 67,546 | 68,897 | 70,275 |
| Interest | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 |
| Rental \& Service Charges | 108,710 | 110,884 | 113,102 | 115,364 | 117,671 | 120,025 | 122,425 | 124,874 | 127,371 | 129,919 | 132,517 |
| Contract Operations | 92,000 | 93,840 | 95,717 | 97,631 | 99,584 | 101,575 | 103,607 | 105,679 | 107,793 | 109,949 | 112,147 |
| Miscellaneous | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 |
| Bedford County CIP Contribution for Debt | 1,996,485 | 2,000,000 | 2,000,000 | 2,000,000 | 1,993,831 | 1,995,615 | 1,992,132 | 1,989,944 | 1,990,298 | 1,990,595 | 1,985,931 |
| Revenue from Operations | 7,984,413 | 8,140,427 | 8,297,219 | 8,458,429 | 8,618,020 | 8,790,247 | 8,962,026 | 9,140,061 | 9,325,747 | 9,516,632 | 9,707,969 |

## Other Non Operating Revenue Sources

| Net Surplus from City of Bedford Pro Forma after 2014 Reversion | - | - | 616,729 | 620,543 | 624,390 | 628,272 | 632,189 | 636,140 | 640,127 | 644,150 | 648,210 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| DEQ Contributions for Capital Projects | - | - | - | - | - | - | - | - | - | - | - |
| Line Dedications | - | - | - | - | - | - | - | - | - | - | - |
| Prepay Redemptions | - | - |  | - | - | - | - | - | - | - |  |
| Miscellaneous | - | - |  | - | - |  |  | - | - | - |  |
| Other Revenue \& Support | - | - | 616,729 | 620,543 | 624,390 | 628,272 | 632,189 | 636,140 | 640,127 | 644,150 | 648,210 |
| TOTAL REVENUES | \$7,984,413 | \$8,140,427 | \$8,913,947 | \$9,078,972 | \$9,242,410 | \$9,418,519 | \$9,594,214 | \$9,776,201 | \$9,965,874 | \$10,160,783 | \$10,356,179 |
| Operating Expenditures | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| Personnel Costs | 1,889,807 | 1,927,603 | 1,966,155 | 2,005,478 | 2,045,588 | 2,086,500 | 2,128,230 | 2,170,794 | 2,214,210 | 2,258,494 | 2,303,664 |
| Administration | 246,504 | 251,434 | 256,463 | 261,592 | 266,824 | 272,160 | 277,604 | 283,156 | 288,819 | 294,595 | 300,487 |
| Customer Service and Billing Costs | 75,022 | 76,522 | 78,053 | 79,614 | 81,206 | 82,830 | 84,487 | 86,177 | 87,900 | 89,658 | 91,451 |
| Design \& Facilities Services | 27,757 | 28,312 | 28,878 | 29,456 | 30,045 | 30,646 | 31,259 | 31,884 | 32,522 | 33,172 | 33,836 |
| Vehicle \& Equipment Services | 116,449 | 118,778 | 121,154 | 123,577 | 126,048 | 128,569 | 131,140 | 133,763 | 136,439 | 139,167 | 141,951 |
| Increased Expenditures from New Facility ${ }^{1}$ | - | - | - | - | 636,100 | 648,822 | 661,798 | 675,034 | 688,535 | 702,306 | 716,352 |
|  | 2,355,539 | 2,402,650 | 2,450,703 | 2,499,717 | 3,185,811 | 3,249,527 | 3,314,518 | 3,380,808 | 3,448,424 | 3,517,393 | 3,587,741 |
| Water Purchases from Lynchburg ${ }^{2}$ | 1,738,456 | 1,790,609 | 1,844,328 | 1,899,657 | 115,027 | 118,478 | 122,032 | 125,693 | 129,464 | 133,348 | 137,348 |
| Other Water Operations | 336,384 | 343,112 | 349,974 | 356,974 | 364,113 | 371,396 | 378,823 | 386,400 | 394,128 | 402,010 | 410,051 |
| Total Water Operations | 2,074,840 | 2,133,721 | 2,194,302 | 2,256,631 | 479,140 | 489,873 | 500,856 | 512,093 | 523,592 | 535,358 | 547,399 |
| Sewer Treatment Purchases from Lynchburg | 212,826 | 219,211 | 225,787 | 232,560 | 239,537 | 246,723 | 254,125 | 261,749 | 269,601 | 277,689 | 286,020 |
| Other Sewer Operations | 319,479 | 325,869 | 332,386 | 339,034 | 345,815 | 352,731 | 359,785 | 366,981 | 374,321 | 381,807 | 389,443 |
| Total Sewer Operations | 532,305 | 545,079 | 558,173 | 571,594 | 585,352 | 599,454 | 613,911 | 628,730 | 643,922 | 659,497 | 675,463 |
| Contract Operations | 45,000 | 45,900 | 46,818 | 47,754 | 48,709 | 49,684 | 50,677 | 51,691 | 52,725 | 53,779 | 54,855 |
| Direct Operating Expenses | 5,007,684 | 5,127,350 | 5,249,996 | 5,375,697 | 4,299,013 | 4,388,539 | 4,479,961 | 4,573,322 | 4,668,663 | 4,766,027 | 4,865,458 |
| Additional Fund Balance available to Pay Debt Service | - | - | - | - | - | - | - | - | - | - | - |
| NET REVENUES AVAILABLE TO PAY DEBT SERVICE | 2,976,729 | 3,013,076 | 3,663,952 | 3,703,276 | 4,943,398 | 5,029,980 | 5,114,253 | 5,202,879 | 5,297,211 | 5,394,756 | 5,490,721 |
| Existing Authority Debt Service | 2,757,127 | 2,664,415 | 2,636,183 | 2,632,824 | 2,171,926 | 2,171,368 | 2,150,787 | 2,092,818 | 2,065,775 | 2,000,116 | 1,985,931 |
| Existing City Debt Service after FY 2014 Reversion | - | - | 1,018,373 | 1,022,134 | 1,018,728 | 1,014,225 | 828,647 | 826,288 | 634,941 | 635,155 | 635,280 |
| Debt Service for New Facility | - | - | - | - | 2,586,861 | 2,585,902 | 2,584,899 | 2,583,851 | 2,582,756 | 2,581,612 | 2,580,416 |
| Total Debt Service | 2,757,127 | 2,664,415 | 3,654,556 | 3,654,958 | 5,777,515 | 5,771,495 | 5,564,333 | 5,502,957 | 5,283,472 | 5,216,883 | 5,201,627 |
| NET CASH SURPLUS/(DEFICIT) | 219,602 | 348,661 | 9,396 | 48,317 | $(834,117)$ | $(741,515)$ | $(450,080)$ | $(300,078)$ | 13,739 | 177,873 | 289,095 |
| Debt Service Coverage (Minimum of 1.15x Required) | 1.08 | 1.13 | 1.00 | 1.01 | 0.86 | 0.87 | 0.92 | 0.95 | 1.00 | 1.03 | 1.06 |
| Projected Water Sale Rate | \$5.40 | \$5.51 | \$5.62 | \$5.73 | \$5.85 | \$5.96 | \$6.08 | \$6.20 | \$6.33 | \$6.45 | \$6.58 |
| Projected Sewer Sale Rate | \$7.00 | \$7.14 | \$7.28 | \$7.43 | \$7.58 | \$7.73 | \$7.88 | \$8.04 | \$8.20 | \$8.37 | \$8.53 |
| Minimum Water Rate to Achieve 1.00x coverage (Balanced Budget) | \$5.07 | \$4.98 | \$5.60 | \$5.66 | \$7.07 | \$7.04 | \$6.73 | \$6.63 | \$6.31 | \$6.21 | \$6.18 |
| Minimum Water Rate to Achieve 1.15x coverage | \$5.70 | \$5.58 | \$6.42 | \$6.47 | \$8.33 | \$8.29 | \$7.92 | \$7.80 | \$7.42 | \$7.30 | \$7.26 |

${ }^{1}$ The sum of $\$ 196,400$ for expanding Highpoint WTP to 1.0 MGD and $\$ 439,700$ for Constructing the 5.0 MGD WTP from Page 20 Table 6 of the PER.
${ }^{2}$ Full purchases from Lynchburg for FY 2012-FY 2015 and 100,000 gallons per day purchased thereafter.

| Bedford County Public Service Authority Appendix C- Pro-Forma with New Facility in One Phase |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Revenue Sources | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 |
| Water Sales | \$6,092,682 | \$6,252,997 | \$6,417,916 | \$6,587,577 | \$6,762,120 | \$6,941,690 | \$7,126,437 | \$7,316,514 | \$7,512,080 | \$7,713,299 | \$7,920,337 |
| Sewer Sales | 1,451,469 | 1,490,993 | 1,531,668 | 1,573,527 | 1,616,607 | 1,660,943 | 1,706,574 | 1,753,537 | 1,801,873 | 1,851,622 | 1,902,827 |
| Penalties | 52,222 | 53,266 | 54,331 | 55,418 | 56,526 | 57,657 | 58,810 | 59,986 | 61,186 | 62,410 | 63,658 |
| Facility Fees | - | - | - | - | - | - | - | - | - | - | - |
| Administrative Fees | 71,681 | 73,114 | 74,576 | 76,068 | 77,589 | 79,141 | 80,724 | 82,338 | 83,985 | 85,665 | 87,378 |
| Interest | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 |
| Rental \& Service Charges | 135,167 | 137,871 | 140,628 | 143,441 | 146,309 | 149,236 | 152,220 | 155,265 | 158,370 | 161,537 | 164,768 |
| Contract Operations | 114,390 | 116,678 | 119,012 | 121,392 | 123,820 | 126,296 | 128,822 | 131,399 | 134,027 | 136,707 | 139,441 |
| Miscellaneous | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 |
| Bedford County CIP Contribution for Debt | 1,988,484 | 963,066 | 960,213 | 955,173 | - | - | - | - | - | - | - |
| Revenue from Operations | 9,912,095 | 9,093,985 | 9,304,344 | 9,518,596 | 8,788,972 | 9,020,964 | 9,259,588 | 9,505,039 | 9,757,521 | 10,017,240 | 10,284,410 |

Other Non Operating Revenue Sources

| Net Surplus from City of Bedford Pro Forma after 2014 Reversion | 652,307 | 656,441 | 660,614 | 664,825 | 669,075 | 673,366 | 677,696 | 682,068 | 686,481 | 690,936 | 695,433 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| DEQ Contributions for Capital Projects | - |  | - | - | - | - | - | - | - | - | - |
| Line Dedications | - | - | - | - | - | - | - | - | - | - | - |
| Prepay Redemptions | - |  | - | - | - |  |  |  |  |  |  |
| Miscellaneous | - |  | - | - | - |  |  |  | . |  |  |
| Other Revenue \& Support | 652,307 | 656,441 | 660,614 | 664,825 | 669,075 | 673,366 | 677,696 | 682,068 | 686,481 | 690,936 | 695,433 |
| TOTAL REVENUES | \$10,564,402 | \$9,750,426 | \$9,964,958 | \$10,183,421 | \$9,458,048 | \$9,694,329 | \$9,937,284 | \$10,187,107 | \$10,444,001 | \$10,708,175 | \$10,979,843 |
| Operating Expenditures | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 |
| Personnel Costs | 2,349,737 | 2,396,732 | 2,444,667 | 2,493,560 | 2,543,431 | 2,594,300 | 2,646,186 | 2,699,110 | 2,753,092 | 2,808,154 | 2,864,317 |
| Administration | 306,497 | 312,627 | 318,879 | 325,257 | 331,762 | 338,397 | 345,165 | 352,068 | 359,110 | 366,292 | 373,618 |
| Customer Service and Billing Costs | 93,280 | 95,146 | 97,049 | 98,990 | 100,970 | 102,989 | 105,049 | 107,150 | 109,293 | 111,479 | 113,708 |
| Design \& Facilities Services | 34,512 | 35,203 | 35,907 | 36,625 | 37,357 | 38,104 | 38,867 | 39,644 | 40,437 | 41,245 | 42,070 |
| Vehicle \& Equipment Services | 144,790 | 147,685 | 150,639 | 153,652 | 156,725 | 159,860 | 163,057 | 166,318 | 169,644 | 173,037 | 176,498 |
| Increased Expenditures from New Facility ${ }^{1}$ | 730,679 | 745,293 | 760,198 | 775,402 | 790,910 | 806,729 | 822,863 | 839,320 | 856,107 | 873,229 | 890,694 |
|  | 3,659,496 | 3,732,686 | 3,807,339 | 3,883,486 | 3,961,156 | 4,040,379 | 4,121,186 | 4,203,610 | 4,287,682 | 4,373,436 | 4,460,905 |
| Water Purchases from Lynchburg ${ }^{2}$ | 141,469 | 145,713 | 150,084 | 154,587 | 159,224 | 164,001 | 168,921 | 173,989 | 179,208 | 184,585 | 190,122 |
| Other Water Operations | 418,252 | 426,617 | 435,149 | 443,852 | 452,729 | 461,784 | 471,019 | 480,440 | 490,049 | 499,849 | 509,846 |
| Total Water Operations | 559,720 | 572,329 | 585,233 | 598,439 | 611,953 | 625,785 | 639,940 | 654,428 | 669,257 | 684,434 | 699,969 |
| Sewer Treatment Purchases from Lynchburg | 294,601 | 303,439 | 312,542 | 321,918 | 331,576 | 341,523 | 351,769 | 362,322 | 373,191 | 384,387 | 395,919 |
| Other Sewer Operations | 397,232 | 405,177 | 413,280 | 421,546 | 429,977 | 438,576 | 447,348 | 456,295 | 465,421 | 474,729 | 484,224 |
| Total Sewer Operations | 691,833 | 708,616 | 725,822 | 743,464 | 761,553 | 780,099 | 799,117 | 818,617 | 838,612 | 859,116 | 880,143 |
| Contract Operations | 55,952 | 57,071 | 58,212 | 59,377 | 60,564 | 61,775 | 63,011 | 64,271 | 65,557 | 66,868 | 68,205 |
| Direct Operating Expenses | 4,967,001 | 5,070,701 | 5,176,607 | 5,284,765 | 5,395,226 | 5,508,038 | 5,623,254 | 5,740,926 | 5,861,108 | 5,983,854 | 6,109,221 |
| Additional Fund Balance available to Pay Debt Service | - | - | - | - | - | - | - | - | - | - | - |
| NET REVENUES AVAILABLE TO PAY DEBT SERVICE | 5,597,401 | 4,679,725 | 4,788,351 | 4,898,655 | 4,062,822 | 4,186,291 | 4,314,029 | 4,446,181 | 4,582,894 | 4,724,321 | 4,870,622 |
| Existing Authority Debt Service | 1,988,484 | 963,066 | 960,213 | 955,173 | - | - | - | - | - | - | - |
| Existing City Debt Service after FY 2014 Reversion | 635,542 | 635,071 | 635,901 | 635,201 | - | - | - | - | - | - | - |
| Debt Service for New Facility | 2,579,166 | 2,577,861 | 2,576,496 | 2,575,070 | 2,573,580 | 2,572,023 | 2,570,396 | 2,568,695 | 2,566,918 | 2,565,061 | 2,563,121 |
| Total Debt Service | 5,203,193 | 4,175,997 | 4,172,610 | 4,165,444 | 2,573,580 | 2,572,023 | 2,570,396 | 2,568,695 | 2,566,918 | 2,565,061 | 2,563,121 |
| NET CASH SURPLUS/(DEFICIT) | 394,209 | 503,727 | 615,742 | 733,212 | 1,489,242 | 1,614,268 | 1,743,634 | 1,877,486 | 2,015,975 | 2,159,260 | 2,307,502 |
| Debt Service Coverage (Minimum of 1.15x Required) | 1.08 | 1.12 | 1.15 | 1.18 | 1.58 | 1.63 | 1.68 | 1.73 | 1.79 | 1.84 | 1.90 |
| Projected Water Sale Rate | \$6.71 | \$6.85 | \$6.99 | \$7.13 | \$7.27 | \$7.41 | \$7.56 | \$7.71 | \$7.87 | \$8.02 | \$8.18 |
| Projected Sewer Sale Rate | \$8.70 | \$8.88 | \$9.06 | \$9.24 | \$9.42 | \$9.61 | \$9.80 | \$10.00 | \$10.20 | \$10.40 | \$10.61 |
| Minimum Water Rate to Achieve 1.00x coverage (Balanced Budget) | \$6.18 | \$6.17 | \$6.16 | \$6.15 | \$5.31 | \$5.32 | \$5.32 | \$5.32 | \$5.33 | \$5.33 | \$5.33 |
| Minimum Water Rate to Achieve 1.15x coverage | \$7.24 | \$7.01 | \$7.00 | \$6.98 | \$5.82 | \$5.82 | \$5.82 | \$5.81 | \$5.81 | \$5.81 | \$5.81 |

${ }^{1}$ The sum of $\$ 196,400$ for expanding Highpoint WTP to 1.0 MGD al
${ }^{2}$ Full purchases from Lynchburg for FY 2012-FY 2015 and 100,000

| Bedford County Public Service Authority Appendix C- Pro-Forma with New Facility in One Phase |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Revenue Sources | 2034 | 2035 | 2036 | 2037 | 2038 | 2039 | 2040 | 2041 | 2042 | 2043 | 2044 |
| Water Sales | \$8,133,369 | \$8,352,573 | \$8,578,133 | \$8,810,238 | \$9,049,083 | \$9,294,869 | \$9,547,802 | \$9,808,096 | \$10,075,971 | \$10,351,652 | \$10,635,373 |
| Sewer Sales | 1,955,531 | 2,009,780 | 2,065,618 | 2,123,094 | 2,182,257 | 2,243,158 | 2,305,847 | 2,370,379 | 2,436,809 | 2,505,193 | 2,575,591 |
| Penalties | 64,931 | 66,230 | 67,554 | 68,905 | 70,284 | 71,689 | 73,123 | 74,585 | 76,077 | 77,599 | 79,151 |
| Facility Fees | - | - | - | - | - | - | - | - | - | - | - |
| Administrative Fees | 89,126 | 90,908 | 92,726 | 94,581 | 96,473 | 98,402 | 100,370 | 102,377 | 104,425 | 106,513 | 108,644 |
| Interest | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 |
| Rental \& Service Charges | 168,063 | 171,425 | 174,853 | 178,350 | 181,917 | 185,556 | 189,267 | 193,052 | 196,913 | 200,851 | 204,868 |
| Contract Operations | 142,230 | 145,075 | 147,976 | 150,936 | 153,954 | 157,034 | 160,174 | 163,378 | 166,645 | 169,978 | 173,378 |
| Miscellaneous | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 |
| Bedford County CIP Contribution for Debt | - | - | - | - | - | - | - | - | - | - | - |
| Revenue from Operations | 10,559,251 | 10,841,990 | 11,132,862 | 11,432,105 | 11,739,968 | 12,056,707 | 12,382,583 | 12,717,868 | 13,062,840 | 13,417,787 | 13,783,004 |
| Other Non Operating Revenue Sources |  |  |  |  |  |  |  |  |  |  |  |
| Net Surplus from City of Bedford Pro Forma after 2014 Reversion | 699,975 | 704,560 | 709,190 | 713,865 | 718,586 | 723,353 | 728,168 | 733,031 | 737,943 | 742,904 | 747,916 |
| DEQ Contributions for Capital Projects | - | - | - | - | - |  | - | - | - | - | - |
| Line Dedications | - | - |  |  | - |  | - | - | - |  |  |
| Prepay Redemptions | - | - |  |  | - |  | - |  |  |  |  |
| Miscellaneous | - | - | - |  | - |  |  | - | - | - | - |
| Other Revenue \& Support | 699,975 | 704,560 | 709,190 | 713,865 | 718,586 | 723,353 | 728,168 | 733,031 | 737,943 | 742,904 | 747,916 |
| total revenues | \$11,259,226 | \$11,546,550 | \$11,842,051 | \$12,145,969 | \$12,458,554 | \$12,780,060 | \$13,110,751 | \$13,450,899 | \$13,800,784 | \$14,160,692 | \$14,530,920 |
| Operating Expenditures | 2034 | 2035 | 2036 | 2037 | 2038 | 2039 | 2040 | 2041 | 2042 | 2043 | 2044 |
| Personnel Costs | 2,921,603 | 2,980,035 | 3,039,636 | 3,100,429 | 3,162,437 | 3,225,686 | 3,290,200 | 3,356,004 | 3,423,124 | 3,491,586 | 3,561,418 |
| Administration | 381,090 | 388,712 | 396,486 | 404,416 | 412,504 | 420,754 | 429,169 | 437,753 | 446,508 | 455,438 | 464,547 |
| Customer Service and Billing Costs | 115,982 | 118,302 | 120,668 | 123,082 | 125,543 | 128,054 | 130,615 | 133,227 | 135,892 | 138,610 | 141,382 |
| Design \& Facilities Services | 42,912 | 43,770 | 44,645 | 45,538 | 46,449 | 47,378 | 48,326 | 49,292 | 50,278 | 51,284 | 52,309 |
| Vehicle \& Equipment Services | 180,028 | 183,628 | 187,301 | 191,047 | 194,868 | 198,765 | 202,741 | 206,795 | 210,931 | 215,150 | 219,453 |
| Increased Expenditures from New Facility ${ }^{1}$ | 908,507 | 926,678 | 945,211 | 964,115 | 983,398 | 1,003,066 | 1,023,127 | 1,043,589 | 1,064,461 | 1,085,750 | 1,107,465 |
|  | 4,550,123 | 4,641,125 | 4,733,948 | 4,828,627 | 4,925,199 | 5,023,703 | 5,124,177 | 5,226,661 | 5,331,194 | 5,437,818 | 5,546,574 |
| Water Purchases from Lynchburg ${ }^{2}$ | 195,826 | 201,701 | 207,752 | 213,984 | 220,404 | 227,016 | 233,826 | 240,841 | 248,066 | 255,508 | 263,173 |
| Other Water Operations | 520,043 | 530,444 | 541,053 | 551,874 | 562,912 | 574,170 | 585,653 | 597,366 | 609,314 | 621,500 | 633,930 |
| Total Water Operations | 715,869 | 732,145 | 748,805 | 765,858 | 783,315 | 801,186 | 819,480 | 838,207 | 857,380 | 877,008 | 897,103 |
| Sewer Treatment Purchases from Lynchburg | 407,796 | 420,030 | 432,631 | 445,610 | 458,978 | 472,748 | 486,930 | 501,538 | 516,584 | 532,082 | 548,044 |
| Other Sewer Operations | 493,908 | 503,787 | 513,862 | 524,140 | 534,622 | 545,315 | 556,221 | 567,345 | 578,692 | 590,266 | 602,072 |
| Total Sewer Operations | 901,705 | 923,817 | 946,493 | 969,749 | 993,601 | 1,018,062 | 1,043,151 | 1,068,883 | 1,095,276 | 1,122,348 | 1,150,116 |
| Contract Operations | 69,569 | 70,960 | 72,380 | 73,827 | 75,304 | 76,810 | 78,346 | 79,913 | 81,511 | 83,141 | 84,804 |
| Direct Operating Expenses | 6,237,266 | 6,368,047 | 6,501,625 | 6,638,062 | 6,777,419 | 6,919,761 | 7,065,154 | 7,213,665 | 7,365,362 | 7,520,316 | 7,678,598 |
| Additional Fund Balance available to Pay Debt Service | - | - | - | - | - | - | - | - | - | - | - |
| NET REVENUES AVAILABLE TO PAY DEBT SERVICE | 5,021,960 | 5,178,503 | 5,340,426 | 5,507,908 | 5,681,135 | 5,860,299 | 6,045,597 | 6,237,235 | 6,435,422 | 6,640,376 | 6,852,323 |
| Existing Authority Debt Service | - | - | - | - | - | - | - | - | - | - |  |
| Existing City Debt Service after FY 2014 Reversion | - | - | - | - | - | - | - | - | - | - |  |
| Debt Service for New Facility | 2,561,093 | 2,558,974 | 2,556,759 | 2,554,445 | 2,552,027 | - | - | - | - | - | - |
| Total Debt Service | 2,561,093 | 2,558,974 | 2,556,759 | 2,554,445 | 2,552,027 | - | - | - | - | - | - |
| NET CASH SURPLUS/(DEFICIT) | 2,460,867 | 2,619,529 | 2,783,666 | 2,953,462 | 3,129,108 | 5,860,299 | 6,045,597 | 6,237,235 | 6,435,422 | 6,640,376 | 6,852,323 |
| Debt Service Coverage (Minimum of 1.15x Required) | 1.96 | 2.02 | 2.09 | 2.16 | 2.23 | - | - | - | - | - | - |
| Projected Water Sale Rate | \$8.35 | \$8.52 | \$8.69 | \$8.86 | \$9.04 | \$9.22 | \$9.40 | \$9.59 | \$9.78 | \$9.98 | \$10.18 |
| Projected Sewer Sale Rate | \$10.82 | \$11.04 | \$11.26 | \$11.48 | \$11.71 | \$11.95 | \$12.19 | \$12.43 | \$12.68 | \$12.93 | \$13.19 |
| Minimum Water Rate to Achieve 1.00x coverage (Balanced Budget) | \$5.34 | \$5.34 | \$5.35 | \$5.35 | \$5.36 | \$2.40 | \$2.44 | \$2.47 | \$2.51 | \$2.55 | \$2.59 |
| Minimum Water Rate to Achieve 1.15x coverage | \$5.81 | \$5.81 | \$5.81 | \$5.81 | \$5.81 | \$2.40 | \$2.44 | \$2.47 | \$2.51 | \$2.55 | \$2.59 |

${ }^{1}$ The sum of $\$ 196,400$ for expanding Highpoint WTP to 1.0 MGD al
${ }^{2}$ Full purchases from Lynchburg for FY 2012-FY 2015 and 100,000

Bedford County Public Service Authority

## Appendix C- Pro-Forma with New Facility in One Phase

Water Sales
Sewer Sales
Penalties
Facility Fees
Administr
Rental \& Service Charg
Contract Operations
Miscellaneous
Bedford County CIP Contribution for Debt
Revenue from Operation

| 2045 | 2046 | 2047 | 2048 | 2049 | 2050 | 2051 | 2052 | 2053 | 2054 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| \$10,927,373 | \$11,227,900 | \$11,537,207 | \$11,855,558 | \$12,183,223 | \$12,520,479 | \$12,867,614 | \$13,224,922 | \$13,592,708 | \$13,971,285 |
| 2,648,062 | 2,722,668 | 2,799,474 | 2,878,546 | 2,959,950 | 3,043,758 | 3,130,041 | 3,218,873 | 3,310,331 | 3,404,493 |
| 80,734 | 82,348 | 83,995 | 85,675 | 87,389 | 89,137 | 90,919 | 92,738 | 94,592 | 96,484 |
| - | - | - | - | - | - | - | - | - | - |
| 110,817 | 113,033 | 115,294 | 117,600 | 119,951 | 122,351 | 124,798 | 127,293 | 129,839 | 132,436 |
| 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 |
| 208,966 | 213,145 | 217,408 | 221,756 | 226,191 | 230,715 | 235,329 | 240,036 | 244,837 | 249,733 |
| 176,845 | 180,382 | 183,990 | 187,670 | 191,423 | 195,251 | 199,157 | 203,140 | 207,202 | 211,346 |
| 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 |
| - | - | - | - | - | - | - | - | - | - |
| 14,158,796 | 14,545,477 | 14,943,369 | 15,352,805 | 15,774,128 | 16,207,691 | 16,653,857 | 17,113,002 | 17,585,510 | 18,071,779 |

Other Non Operating Revenue Sources

| Net Surplus from City of Bedford Pro Forma after 2014 Reversion | 752,978 | 758,093 | 763,260 | 768,480 | 773,754 | 779,084 | 784,469 | 789,911 | 795,411 | 800,969 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| DEQ Contributions for Capital Projects | - | - | - | - | - | - | - | - | - | - |
| Line Dedications | - |  |  |  | - | - | - | - | - | - |
| Prepay Redemptions | - | - | - |  | - | . | - | - |  |  |
| Miscellaneous | - | - |  |  | - | - | - |  |  |  |
| Other Revenue \& Support | 752,978 | 758,093 | 763,260 | 768,480 | 773,754 | 779,084 | 784,469 | 789,911 | 795,411 | 800,969 |
| TOTAL REVENUES | \$14,911,775 | \$15,303,569 | \$15,706,628 | \$16,121,284 | \$16,547,882 | \$16,986,774 | \$17,438,326 | \$17,902,913 | \$18,380,921 | \$18,872,748 |
| Operating Expenditures | 2045 | 2046 | 2047 | 2048 | 2049 | 2050 | 2051 | 2052 | 2053 | 2054 |
| Personnel Costs | 3,632,646 | 3,705,299 | 3,779,405 | 3,854,993 | 3,932,093 | 4,010,735 | 4,090,950 | 4,172,769 | 4,256,224 | 4,341,349 |
| Administration | 473,838 | 483,314 | 492,981 | 502,840 | 512,897 | 523,155 | 533,618 | 544,291 | 555,176 | 566,280 |
| Customer Service and Billing Costs | 144,210 | 147,094 | 150,036 | 153,036 | 156,097 | 159,219 | 162,403 | 165,652 | 168,965 | 172,344 |
| Design \& Facilities Services | 53,355 | 54,422 | 55,511 | 56,621 | 57,754 | 58,909 | 60,087 | 61,289 | 62,514 | 63,765 |
| Vehicle \& Equipment Services | 223,842 | 228,319 | 232,885 | 237,543 | 242,294 | 247,140 | 252,082 | 257,124 | 262,266 | 267,512 |
| Increased Expenditures from New Facility ${ }^{1}$ | 1,129,615 | 1,152,207 | 1,175,251 | 1,198,756 | 1,222,731 | 1,247,186 | 1,272,130 | 1,297,572 | 1,323,524 | 1,349,994 |
|  | 5,657,506 | 5,770,656 | 5,886,069 | 6,003,790 | 6,123,866 | 6,246,344 | 6,371,270 | 6,498,696 | 6,628,670 | 6,761,243 |
| Water Purchases from Lynchburg ${ }^{2}$ | 271,069 | 279,201 | 287,577 | 296,204 | 305,090 | 314,243 | 323,670 | 333,380 | 343,382 | 353,683 |
| Other Water Operations | 646,609 | 659,541 | 672,732 | 686,186 | 699,910 | 713,908 | 728,186 | 742,750 | 757,605 | 772,757 |
| Total Water Operations | 917,677 | 938,742 | 960,308 | 982,390 | 1,005,000 | 1,028,151 | 1,051,856 | 1,076,130 | 1,100,987 | 1,126,440 |
| Sewer Treatment Purchases from Lynchburg | 564,485 | 581,420 | 598,863 | 616,828 | 635,333 | 654,393 | 674,025 | 694,246 | 715,073 | 736,525 |
| Other Sewer Operations | 614,113 | 626,395 | 638,923 | 651,702 | 664,736 | 678,030 | 691,591 | 705,423 | 719,531 | 733,922 |
| Total Sewer Operations | 1,178,598 | 1,207,815 | 1,237,786 | 1,268,530 | 1,300,069 | 1,332,424 | 1,365,616 | 1,399,669 | 1,434,604 | 1,470,447 |
| Contract Operations | 86,500 | 88,230 | 89,995 | 91,795 | 93,631 | 95,503 | 97,414 | 99,362 | 101,349 | 103,376 |
| Direct Operating Expenses | 7,840,282 | 8,005,443 | 8,174,158 | 8,346,506 | 8,522,566 | 8,702,422 | 8,886,156 | 9,073,857 | 9,265,610 | 9,461,507 |
| Additional Fund Balance available to Pay Debt Service | - | - | - | - | - | - | - | - | - | - |
| NET REVENUES AVAILABLE TO PAY DEBT SERVICE | 7,071,493 | 7,298,126 | 7,532,470 | 7,774,779 | 8,025,316 | 8,284,353 | 8,552,170 | 8,829,056 | 9,115,311 | 9,411,241 |

revenues available to pay debt service

Existing City Debt Service after FY 2014 Reversion
Debt Service for New Facility
Total Debt Service
NET CASH SURPLUS/(DEFICIT)
Debt Service Coverage (Minimum of 1.15x Required)

| Projected Water Sale Rate | \$10.38 | \$10.59 | \$10.80 | \$11.02 | \$11.24 | \$11.46 | \$11.69 | \$11.92 | \$12.16 | \$12.41 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Projected Sewer Sale Rate | \$13.46 | \$13.72 | \$14.00 | \$14.28 | \$14.56 | \$14.86 | \$15.15 | \$15.46 | \$15.77 | \$16.08 |
| Minimum Water Rate to Achieve 1.00x coverage (Balanced Budget) | \$2.63 | \$2.67 | \$2.70 | \$2.74 | \$2.78 | \$2.82 | \$2.86 | \$2.90 | \$2.93 | \$2.97 |
| Minimum Water Rate to Achieve 1.15x coverage | \$2.63 | \$2.67 | \$2.70 | \$2.74 | \$2.78 | \$2.82 | \$2.86 | \$2.90 | \$2.93 | \$2.97 |

${ }^{1}$ The sum of $\$ 196,400$ for expanding Highpoint WTP to 1.0 MGD al
${ }^{2}$ Full purchases from Lynchburg for FY 2012-FY 2015 and 100,000

## Bedford County Public Service Authority

| Revenue Sources | 2055 | 2056 | 2057 | 2058 | 2059 | 2060 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Water Sales | \$14,360,976 | \$14,762,113 | \$15,175,039 | \$15,600,106 | \$16,037,679 | \$16,488,130 |
| Sewer Sales | 3,501,442 | 3,601,259 | 3,704,031 | 3,809,848 | 3,918,799 | 4,030,980 |
| Penalties | 98,414 | 100,382 | 102,390 | 104,438 | 106,526 | 108,657 |
| Facility Fees | - | - | - | - | - | - |
| Administrative Fees | 135,085 | 137,787 | 140,542 | 143,353 | 146,220 | 149,145 |
| Interest | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 |
| Rental \& Service Charges | 254,728 | 259,823 | 265,019 | 270,320 | 275,726 | 281,240 |
| Contract Operations | 215,573 | 219,885 | 224,283 | 228,768 | 233,344 | 238,010 |
| Miscellaneous | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 |
| Bedford County CIP Contribution for Debt | - | - | - | - | - | - |
| Revenue from Operations | 18,572,218 | 19,087,249 | 19,617,304 | 20,162,833 | 20,724,294 | 21,302,163 |

Other Non Operating Revenue Sources

| Net Surplus from City of Bedford Pro Forma after 2014 Reversion | 806,586 | 812,264 | 818,003 | 823,805 | 829,669 | 835,598 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| DEQ Contributions for Capital Projects |  | - | - |  |  |  |
| Line Dedications | - | - | - |  |  |  |
| Prepay Redemptions |  | - | - |  |  |  |
| Miscellaneous | - | - |  |  |  |  |
| Other Revenue \& Support | 806,586 | 812,264 | 818,003 | 823,805 | 829,669 | 835,598 |
| total revenues | \$19,378,804 | \$19,899,512 | \$20,435,308 | \$20,986,637 | \$21,553,963 | \$22,137,761 |
| Operating Expenditures | 2055 | 2056 | 2057 | 2058 | 2059 | 2060 |
| Personnel Costs | 4,428,176 | 4,516,739 | 4,607,074 | 4,699,215 | 4,793,200 | 4,889,064 |
| Administration | 577,606 | 589,158 | 600,941 | 612,960 | 625,219 | 637,723 |
| Customer Service and Billing Costs | 175,791 | 179,307 | 182,893 | 186,551 | 190,282 | 194,087 |
| Design \& Facilities Services | 65,040 | 66,341 | 67,668 | 69,021 | 70,401 | 71,809 |
| Vehicle \& Equipment Services | 272,862 | 278,319 | 283,886 | 289,563 | 295,355 | 301,262 |
| Increased Expenditures from New Facility ${ }^{1}$ | 1,376,994 | 1,404,534 | 1,432,625 | 1,461,277 | 1,490,503 | 1,520,313 |
|  | 6,896,468 | 7,034,397 | 7,175,085 | 7,318,587 | 7,464,959 | 7,614,258 |
| Water Purchases from Lynchburg ${ }^{2}$ | 364,294 | 375,222 | 386,479 | 398,073 | 410,016 | 422,316 |
| Other Water Operations | 788,212 | 803,977 | 820,056 | 836,457 | 853,186 | 870,250 |
| Total Water Operations | 1,152,506 | 1,179,199 | 1,206,535 | 1,234,531 | 1,263,202 | 1,292,566 |
| Sewer Treatment Purchases from Lynchburg | 758,621 | 781,380 | 804,821 | 828,966 | 853,835 | 879,450 |
| Other Sewer Operations | 748,600 | 763,572 | 778,844 | 794,421 | 810,309 | 826,515 |
| Total Sewer Operations | 1,507,221 | 1,544,952 | 1,583,665 | 1,623,386 | 1,664,144 | 1,705,965 |
| Contract Operations | 105,444 | 107,552 | 109,703 | 111,898 | 114,135 | 116,418 |
| Direct Operating Expenses | 9,661,639 | 9,866,101 | 10,074,989 | 10,288,402 | 10,506,440 | 10,729,207 |

Additional Fund Balance available to Pay Debt Service NET REVENUES AVAILABLE TO PAY DEBT SERVICE

Existing Authority Debt Service
Existing City Debt Service after FY 2014 Reversion
Debt Service for New Facility
Total Debt Service
NET CASH SURPLUS/(DEFICIT)
$\qquad$

| $9,717,165$ | $10,033,412$ | $10,360,319$ | $10,698,236$ | $11,047,523$ | $11,408,553$ |
| :--- | :--- | :--- | :--- | :--- | :--- |

Debt Service Coverage (Minimum of 1.15x Required)

| Projected Water Sale Rate | $\$ 12.65$ | $\$ 12.91$ | $\$ 13.16$ | $\$ 13.43$ | $\$ 13.70$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Projected Sewer Sale Rate | $\$ 16.40$ | $\$ 16.73$ | $\$ 17.06$ | $\$ 17.41$ | $\$ 17.75$ |
| Minimum Water Rate to Achieve 1.00x coverage (Balanced | $\$ 3.01$ | $\$ 3.05$ | $\$ 3.08$ | $\$ 3.12$ | $\$ 18.97$ |
| Budget) |  |  |  | $\$ 3.16$ |  |
| Minimum Water Rate to Achieve 1.15x coverage | $\$ 3.01$ | $\$ 3.05$ | $\$ 3.08$ | $\$ 3.12$ | $\$ 3.16$ |

[^2]Appendix D
Case III - Pro-Forma Financial Model with New Facility Built in Three Phases

| Bedford County Public Service Authority Appendix D- Pro-Forma with New Facility in Three Phases |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Revenue Sources | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| Water Sales | \$4,597,798 | \$4,715,423 | \$4,836,387 | \$4,960,791 | \$5,088,735 | \$5,220,324 | \$5,355,666 | \$5,494,873 | \$5,638,058 | \$5,785,339 | \$5,936,839 |
| Sewer Sales | 1,083,770 | 1,112,637 | 1,142,337 | 1,172,894 | 1,204,335 | 1,236,686 | 1,269,973 | 1,304,226 | 1,339,471 | 1,375,740 | 1,413,062 |
| Penalties | 42,000 | 42,840 | 43,697 | 44,571 | 45,462 | 46,371 | 47,299 | 48,245 | 49,210 | 50,194 | 51,198 |
| Facility Fees | - | - | - | - |  | - |  |  |  | - | - |
| Administrative Fees | 57,650 | 58,803 | 59,979 | 61,179 | 62,402 | 63,650 | 64,923 | 66,222 | 67,546 | 68,897 | 70,275 |
| Interest | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 |
| Rental \& Service Charges | 108,710 | 110,884 | 113,102 | 115,364 | 117,671 | 120,025 | 122,425 | 124,874 | 127,371 | 129,919 | 132,517 |
| Contract Operations | 92,000 | 93,840 | 95,717 | 97,631 | 99,584 | 101,575 | 103,607 | 105,679 | 107,793 | 109,949 | 112,147 |
| Miscellaneous | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 |
| Bedford County CIP Contribution for Debt | 1,996,485 | 2,000,000 | 2,000,000 | 2,000,000 | 1,993,831 | 1,995,615 | 1,992,132 | 1,989,944 | 1,990,298 | 1,990,595 | 1,985,931 |
| Revenue from Operations | 7,984,413 | 8,140,427 | 8,297,219 | 8,458,429 | 8,618,020 | 8,790,247 | 8,962,026 | 9,140,061 | 9,325,747 | 9,516,632 | 9,707,969 |

## Other Non Operating Revenue Sources

| Net Surplus from City of Bedford Pro Forma after 2014 Reversion |  |  | 616,729 | 620,543 | 624,390 | 628,272 | 632,189 | 636,140 | 640,127 | 644,150 | 648,210 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| DEQ Contributions for Capital Projects |  |  | - | - | - | - | - | - | - | - | - |
| Line Dedications |  | - | - | - | - | - | - | - | - | - | - |
| Prepay Redemptions |  | - | - |  |  | - |  |  |  | - |  |
| Miscellaneous |  |  | - |  |  |  | - |  |  | - |  |
| Other Revenue \& Support | - | - | 616,729 | 620,543 | 624,390 | 628,272 | 632,189 | 636,140 | 640,127 | 644,150 | 648,210 |
| TOTAL REVENUES | \$7,984,413 | \$8,140,427 | \$8,913,947 | \$9,078,972 | \$9,242,410 | \$9,418,519 | \$9,594,214 | \$9,776,201 | \$9,965,874 | \$10,160,783 | \$10,356,179 |
| Operating Expenditures | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| Personnel Costs | 1,889,807 | 1,927,603 | 1,966,155 | 2,005,478 | 2,045,588 | 2,086,500 | 2,128,230 | 2,170,794 | 2,214,210 | 2,258,494 | 2,303,664 |
| Administration | 246,504 | 251,434 | 256,463 | 261,592 | 266,824 | 272,160 | 277,604 | 283,156 | 288,819 | 294,595 | 300,487 |
| Customer Service and Billing Costs | 75,022 | 76,522 | 78,053 | 79,614 | 81,206 | 82,830 | 84,487 | 86,177 | 87,900 | 89,658 | 91,451 |
| Design \& Facilities Services | 27,757 | 28,312 | 28,878 | 29,456 | 30,045 | 30,646 | 31,259 | 31,884 | 32,522 | 33,172 | 33,836 |
| Vehicle \& Equipment Services | 116,449 | 118,778 | 121,154 | 123,577 | 126,048 | 128,569 | 131,140 | 133,763 | 136,439 | 139,167 | 141,951 |
| Increased Expenditures from New Facility ${ }^{1}$ | - | - | - | - | 636,100 | 648,822 | 661,798 | 675,034 | 688,535 | 702,306 | 716,352 |
|  | 2,355,539 | 2,402,650 | 2,450,703 | 2,499,717 | 3,185,811 | 3,249,527 | 3,314,518 | 3,380,808 | 3,448,424 | 3,517,393 | 3,587,741 |
| Water Purchases from Lynchburg ${ }^{2}$ | 1,738,456 | 1,790,609 | 1,844,328 | 1,899,657 | 115,027 | 118,478 | 122,032 | 125,693 | 129,464 | 133,348 | 137,348 |
| Other Water Operations | 336,384 | 343,112 | 349,974 | 356,974 | 364,113 | 371,396 | 378,823 | 386,400 | 394,128 | 402,010 | 410,051 |
| Total Water Operations | 2,074,840 | 2,133,721 | 2,194,302 | 2,256,631 | 479,140 | 489,873 | 500,856 | 512,093 | 523,592 | 535,358 | 547,399 |
| Sewer Treatment Purchases from Lynchburg | 212,826 | 219,211 | 225,787 | 232,560 | 239,537 | 246,723 | 254,125 | 261,749 | 269,601 | 277,689 | 286,020 |
| Other Sewer Operations | 319,479 | 325,869 | 332,386 | 339,034 | 345,815 | 352,731 | 359,785 | 366,981 | 374,321 | 381,807 | 389,443 |
| Total Sewer Operations | 532,305 | 545,079 | 558,173 | 571,594 | 585,352 | 599,454 | 613,911 | 628,730 | 643,922 | 659,497 | 675,463 |
| Contract Operations | 45,000 | 45,900 | 46,818 | 47,754 | 48,709 | 49,684 | 50,677 | 51,691 | 52,725 | 53,779 | 54,855 |
| Direct Operating Expenses | 5,007,684 | 5,127,350 | 5,249,996 | 5,375,697 | 4,299,013 | 4,388,539 | 4,479,961 | 4,573,322 | 4,668,663 | 4,766,027 | 4,865,458 |
| Additional Fund Balance available to Pay Debt Service | - | - | - | - | - | - | - | - | - | - | - |
| NET REVENUES AVAILABLE TO PAY DEBT SERVICE | 2,976,729 | 3,013,076 | 3,663,952 | 3,703,276 | 4,943,398 | 5,029,980 | 5,114,253 | 5,202,879 | 5,297,211 | 5,394,756 | 5,490,721 |
| Existing Authority Debt Service | 2,757,127 | 2,664,415 | 2,636,183 | 2,632,824 | 2,171,926 | 2,171,368 | 2,150,787 | 2,092,818 | 2,065,775 | 2,000,116 | 1,985,931 |
| Existing City Debt Service after FY 2014 Reversion | - | - | 1,018,373 | 1,022,134 | 1,018,728 | 1,014,225 | 828,647 | 826,288 | 634,941 | 635,155 | 635,280 |
| Debt Service for New Facility | - | - | - | - | 1,843,752 | 1,843,068 | 1,842,353 | 1,841,607 | 1,840,826 | 1,840,011 | 1,839,158 |
| Total Debt Service | 2,757,127 | 2,664,415 | 3,654,556 | 3,654,958 | 5,034,406 | 5,028,662 | 4,821,788 | 4,760,713 | 4,541,542 | 4,475,282 | 4,460,369 |
| NET CASH SURPLUS/(DEFICIT) | 219,602 | 348,661 | 9,396 | 48,317 | $(91,008)$ | 1,319 | 292,465 | 442,167 | 755,669 | 919,474 | 1,030,352 |
| Debt Service Coverage (Minimum of 1.15x Required) | 1.08 | 1.13 | 1.00 | 1.01 | 0.98 | 1.00 | 1.06 | 1.09 | 1.17 | 1.21 | 1.23 |
| Projected Water Sale Rate | \$5.40 | \$5.51 | \$5.62 | \$5.73 | \$5.85 | \$5.96 | \$6.08 | \$6.20 | \$6.33 | \$6.45 | \$6.58 |
| Projected Sewer Sale Rate | \$7.00 | \$7.14 | \$7.28 | \$7.43 | \$7.58 | \$7.73 | \$7.88 | \$8.04 | \$8.20 | \$8.37 | \$8.53 |
| Minimum Water Rate to Achieve 1.00x coverage (Balanced Budget) | \$5.07 | \$4.98 | \$5.60 | \$5.66 | \$5.98 | \$5.96 | \$5.66 | \$5.58 | \$5.26 | \$5.17 | \$5.16 |
| Minimum Water Rate to Achieve 1.15x coverage | \$5.70 | \$5.58 | \$6.42 | \$6.47 | \$7.08 | \$7.05 | \$6.70 | \$6.59 | \$6.22 | \$6.11 | \$6.08 |

${ }^{1}$ The sum of $\$ 196,400$ for expanding Highpoint WTP to 1.0 MGD and $\$ 439,700$ for Constructing the 5.0 MGD WTP from Page 20 Table 6 of the PER.
${ }^{2}$ Full purchases from Lynchburg for FY 2012-FY 2015 and 100,000 gallons per day purchased thereatter.

Bedford County Public Service Authority
Appendix D- Pro-Forma with New Facility in Three Phases

| Revenue Sources | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Water Sales | \$6,092,682 | \$6,252,997 | \$6,417,916 | \$6,587,577 | \$6,762,120 | \$6,941,690 | \$7,126,437 | \$7,316,514 | \$7,512,080 | \$7,713,299 | \$7,920,337 |
| Sewer Sales | 1,451,469 | 1,490,993 | 1,531,668 | 1,573,527 | 1,616,607 | 1,660,943 | 1,706,574 | 1,753,537 | 1,801,873 | 1,851,622 | 1,902,827 |
| Penalties | 52,222 | 53,266 | 54,331 | 55,418 | 56,526 | 57,657 | 58,810 | 59,986 | 61,186 | 62,410 | 63,658 |
| Facility Fees | - | - | - | - | - | - | - | - | - | - | - |
| Administrative Fees | 71,681 | 73,114 | 74,576 | 76,068 | 77,589 | 79,141 | 80,724 | 82,338 | 83,985 | 85,665 | 87,378 |
| Interest | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 |
| Rental \& Service Charges | 135,167 | 137,871 | 140,628 | 143,441 | 146,309 | 149,236 | 152,220 | 155,265 | 158,370 | 161,537 | 164,768 |
| Contract Operations | 114,390 | 116,678 | 119,012 | 121,392 | 123,820 | 126,296 | 128,822 | 131,399 | 134,027 | 136,707 | 139,441 |
| Miscellaneous | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | ,000 |
| Bedford County CIP Contribution for Debt | 1,988,484 | 963,066 | 960,213 | 955,173 | - | - | - | - | - | - | - |
| Revenue from Operations | 9,912,095 | 9,093,985 | 44 | ,518,596 | 8,788,972 | 9,020,964 | 9,259,588 | 9,505,039 | 9,757,521 | 10,017,240 | 10,284,410 |

Revenue from Operations
Other Non Operating Revenue Sources

| Net Surplus from City of Bedford Pro Forma after 2014 Reversion | 652,307 | 656,441 | 660,614 | 664,825 | 669,075 | 673,366 | 677,696 | 682,068 | 686,481 | 690,936 | 695,433 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| DEQ Contributions for Capital Projects |  | - | - | - | - | - | - | - | - | - | - |
| Line Dedications | - | - | - | - | - | - | - | - | - | - | - |
| Prepay Redemptions |  |  | - | - |  | - | - |  |  |  |  |
| Miscellaneous |  |  | - | - |  |  |  | - |  |  |  |
| Other Revenue \& Support | 652,307 | 656,441 | 660,614 | 664,825 | 669,075 | 673,366 | 677,696 | 682,068 | 686,481 | 690,936 | 695,433 |
| total revenues | \$10,564,402 | \$9,750,426 | \$9,964,958 | \$10,183,421 | \$9,458,048 | \$9,694,329 | \$9,937,284 | \$10,187,107 | \$10,444,001 | \$10,708,175 | \$10,979,843 |
| Operating Expenditures | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 |
| Personnel Costs | 2,349,737 | 2,396,732 | 2,444,667 | 2,493,560 | 2,543,431 | 2,594,300 | 2,646,186 | 2,699,110 | 2,753,092 | 2,808,154 | 2,864,317 |
| Administration | 306,497 | 312,627 | 318,879 | 325,257 | 331,762 | 338,397 | 345,165 | 352,068 | 359,110 | 366,292 | 373,618 |
| Customer Service and Billing Costs | 93,280 | 95,146 | 97,049 | 98,990 | 100,970 | 102,989 | 105,049 | 107,150 | 109,293 | 111,479 | 113,708 |
| Design \& Facilities Services | 34,512 | 35,203 | 35,907 | 36,625 | 37,357 | 38,104 | 38,867 | 39,644 | 40,437 | 41,245 | 42,070 |
| Vehicle \& Equipment Services | 144,790 | 147,685 | 150,639 | 153,652 | 156,725 | 159,860 | 163,057 | 166,318 | 169,644 | 173,037 | 176,498 |
| Increased Expenditures from New Facility ${ }^{1}$ | 730,679 | 745,293 | 760,198 | 775,402 | 790,910 | 806,729 | 822,863 | 839,320 | 856,107 | 873,229 | 890,694 |
|  | 3,659,496 | 3,732,686 | 3,807,339 | 3,883,486 | 3,961,156 | 4,040,379 | 4,121,186 | 4,203,610 | 4,287,682 | 4,373,436 | 4,460,905 |
| Water Purchases from Lynchburg ${ }^{2}$ | 141,469 | 145,713 | 150,084 | 154,587 | 159,224 | 164,001 | 168,921 | 173,989 | 179,208 | 184,585 | 190,122 |
| Other Water Operations | 418,252 | 426,617 | 435,149 | 443,852 | 452,729 | 461,784 | 471,019 | 480,440 | 490,049 | 499,849 | 509,846 |
| Total Water Operations | 559,720 | 572,329 | 585,233 | 598,439 | 611,953 | 625,785 | 639,940 | 654,428 | 669,257 | 684,434 | 699,969 |
| Sewer Treatment Purchases from Lynchburg | 294,601 | 303,439 | 312,542 | 321,918 | 331,576 | 341,523 | 351,769 | 362,322 | 373,191 | 384,387 | 395,919 |
| Other Sewer Operations | 397,232 | 405,177 | 413,280 | 421,546 | 429,977 | 438,576 | 447,348 | 456,295 | 465,421 | 474,729 | 484,224 |
| Total Sewer Operations | 691,833 | 708,616 | 725,822 | 743,464 | 761,553 | 780,099 | 799,117 | 818,617 | 838,612 | 859,116 | 880,143 |
| Contract Operations | 55,952 | 57,071 | 58,212 | 59,377 | 60,564 | 61,775 | 63,011 | 64,271 | 65,557 | 66,868 | 68,205 |
| Direct Operating Expenses | 4,967,001 | 5,070,701 | 5,176,607 | 5,284,765 | 5,395,226 | 5,508,038 | 5,623,254 | 5,740,926 | 5,861,108 | 5,983,854 | 6,109,221 |
| Additional Fund Balance available to Pay Debt Service | - | - | - | - | - | - | - | - | - | - | - |
| NET REVENUES AVAILABLE TO PAY DEBT SERVICE | 5,597,401 | 4,679,725 | 4,788,351 | 4,898,655 | 4,062,822 | 4,186,291 | 4,314,029 | 4,446,181 | 4,582,894 | 4,724,321 | 4,870,622 |
| Existing Authority Debt Service | 1,988,484 | 963,066 | 960,213 | 955,173 | - | - | - | - | - | - | - |
| Existing City Debt Service after FY 2014 Reversion | 635,542 | 635,071 | 635,901 | 635,201 | - | - | - | - | - | - | - |
| Debt Service for New Facility | 1,838,268 | 1,837,337 | 1,836,364 | 2,220,924 | 2,219,719 | 2,218,459 | 2,217,143 | 2,215,768 | 2,214,331 | 2,212,829 | 2,211,260 |
| Total Debt Service | 4,462,294 | 3,435,474 | 3,432,478 | 3,811,297 | 2,219,719 | 2,218,459 | 2,217,143 | 2,215,768 | 2,214,331 | 2,212,829 | 2,211,260 |
| NET CASH SURPLUS/(DEFICIT) | 1,135,107 | 1,244,251 | 1,355,873 | 1,087,358 | 1,843,103 | 1,967,832 | 2,096,886 | 2,230,413 | 2,368,563 | 2,511,492 | 2,659,362 |
| Debt Service Coverage (Minimum of 1.15x Required) | 1.25 | 1.36 | 1.40 | 1.29 | 1.83 | 1.89 | 1.95 | 2.01 | 2.07 | 2.13 | 2.20 |
| Projected Water Sale Rate | \$6.71 | \$6.85 | \$6.99 | \$7.13 | \$7.27 | \$7.41 | \$7.56 | \$7.71 | \$7.87 | \$8.02 | \$8.18 |
| Projected Sewer Sale Rate | \$8.70 | \$8.88 | \$9.06 | \$9.24 | \$9.42 | \$9.61 | \$9.80 | \$10.00 | \$10.20 | \$10.40 | \$10.61 |
| Minimum Water Rate to Achieve 1.00x coverage (Balanced Budget) | \$5.17 | \$5.17 | \$5.17 | \$5.68 | \$4.85 | \$4.86 | \$4.87 | \$4.87 | \$4.88 | \$4.89 | \$4.90 |
| Minimum Water Rate to Achieve 1.15x coverage | \$6.08 | \$5.86 | \$5.86 | \$6.44 | \$5.29 | \$5.29 | \$5.29 | \$5.30 | \$5.30 | \$5.30 | \$5.31 |

${ }^{1}$ The sum of $\$ 196,400$ for expanding Highpoint WTP to 1.0 MGD and :
${ }^{2}$ Full purchases from Lynchburg for FY 2012-FY 2015 and 100,000 ga

Bedford County Public Service Authority
Appendix D- Pro-Forma with New Facility in Three Phases

| Revenue Sources | 2034 | 2035 | 2036 | 2037 | 2038 | 2039 | 2040 | 2041 | 2042 | 2043 | 2044 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Water Sales | \$8,133,369 | \$8,352,573 | \$8,578,133 | \$8,810,238 | \$9,049,083 | \$9,294,869 | \$9,547,802 | \$9,808,096 | \$10,075,971 | \$10,351,652 | \$10,635,373 |
| Sewer Sales | 1,955,531 | 2,009,780 | 2,065,618 | 2,123,094 | 2,182,257 | 2,243,158 | 2,305,847 | 2,370,379 | 2,436,809 | 2,505,193 | 2,575,591 |
| Penalties | 64,931 | 66,230 | 67,554 | 68,905 | 70,284 | 71,689 | 73,123 | 74,585 | 76,077 | 77,599 | 79,151 |
| Facility Fees |  |  |  |  |  |  |  |  |  |  |  |
| Administrative Fees | 89,126 | 90,908 | 92,726 | 94,581 | 96,473 | 98,402 | 100,370 | 102,377 | 104,425 | 106,513 | 108,644 |
| Interest | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 |
| Rental \& Service Charges | 168,063 | 171,425 | 174,853 | 178,350 | 181,917 | 185,556 | 189,267 | 193,052 | 196,913 | 200,851 | 204,868 |
| Contract Operations | 142,230 | 145,075 | 147,976 | 150,936 | 153,954 | 157,034 | 160,174 | 163,378 | 166,645 | 169,978 | 173,378 |
| Miscellaneous | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 |
| Bedford County CIP Contribution for Debt | - | - | - | - | - | - | - | - | - | - | - |
| Revenue from Operations | 10,559,251 | 10,841,990 | 11,132,862 | 11,432,105 | 11,739,968 | 12,056,707 | 12,382,583 | 12,717,868 | 13,062,840 | 13,417,787 | 13,783,004 |

## Other Non Operating Revenue Sources

| Net Surplus from City of Bedford Pro Forma after 2014 Reversion | 699,975 | 704,560 | 709,190 | 713,865 | 718,586 | 723,353 | 728,168 | 733,031 | 737,943 | 742,904 | 747,916 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| DEQ Contributions for Capital Projects |  | - | - | - | - | - | - | - | - | - | - |
| Line Dedications | - | - | - | - | - | - | - | - | - | - | - |
| Prepay Redemptions |  | - | - | - |  |  | - |  |  |  |  |
| Miscellaneous | - | - | - |  | - |  |  |  |  | - | - |
| Other Revenue \& Support | 699,975 | 704,560 | 709,190 | 713,865 | 718,586 | 723,353 | 728,168 | 733,031 | 737,943 | 742,904 | 747,916 |
| total revenues | \$11,259,226 | \$11,546,550 | \$11,842,051 | \$12,145,969 | \$12,458,554 | \$12,780,060 | \$13,110,751 | \$13,450,899 | \$13,800,784 | \$14,160,692 | \$14,530,920 |
| Operating Expenditures | 2034 | 2035 | 2036 | 2037 | 2038 | 2039 | 2040 | 2041 | 2042 | 2043 | 2044 |
| Personnel Costs | 2,921,603 | 2,980,035 | 3,039,636 | 3,100,429 | 3,162,437 | 3,225,686 | 3,290,200 | 3,356,004 | 3,423,124 | 3,491,586 | 3,561,418 |
| Administration | 381,090 | 388,712 | 396,486 | 404,416 | 412,504 | 420,754 | 429,169 | 437,753 | 446,508 | 455,438 | 464,547 |
| Customer Service and Billing Costs | 115,982 | 118,302 | 120,668 | 123,082 | 125,543 | 128,054 | 130,615 | 133,227 | 135,892 | 138,610 | 141,382 |
| Design \& Facilities Services | 42,912 | 43,770 | 44,645 | 45,538 | 46,449 | 47,378 | 48,326 | 49,292 | 50,278 | 51,284 | 52,309 |
| Vehicle \& Equipment Services | 180,028 | 183,628 | 187,301 | 191,047 | 194,868 | 198,765 | 202,741 | 206,795 | 210,931 | 215,150 | 219,453 |
| Increased Expenditures from New Facility ${ }^{1}$ | 908,507 | 926,678 | 945,211 | 964,115 | 983,398 | 1,003,066 | 1,023,127 | 1,043,589 | 1,064,461 | 1,085,750 | 1,107,465 |
|  | 4,550,123 | 4,641,125 | 4,733,948 | 4,828,627 | 4,925,199 | 5,023,703 | 5,124,177 | 5,226,661 | 5,331,194 | 5,437,818 | 5,546,574 |
| Water Purchases from Lynchburg ${ }^{2}$ | 195,826 | 201,701 | 207,752 | 213,984 | 220,404 | 227,016 | 233,826 | 240,841 | 248,066 | 255,508 | 263,173 |
| Other Water Operations | 520,043 | 530,444 | 541,053 | 551,874 | 562,912 | 574,170 | 585,653 | 597,366 | 609,314 | 621,500 | 633,930 |
| Total Water Operations | 715,869 | 732,145 | 748,805 | 765,858 | 783,315 | 801,186 | 819,480 | 838,207 | 857,380 | 877,008 | 897,103 |
| Sewer Treatment Purchases from Lynchburg | 407,796 | 420,030 | 432,631 | 445,610 | 458,978 | 472,748 | 486,930 | 501,538 | 516,584 | 532,082 | 548,044 |
| Other Sewer Operations | 493,908 | 503,787 | 513,862 | 524,140 | 534,622 | 545,315 | 556,221 | 567,345 | 578,692 | 590,266 | 602,072 |
| Total Sewer Operations | 901,705 | 923,817 | 946,493 | 969,749 | 993,601 | 1,018,062 | 1,043,151 | 1,068,883 | 1,095,276 | 1,122,348 | 1,150,116 |
| Contract Operations | 69,569 | 70,960 | 72,380 | 73,827 | 75,304 | 76,810 | 78,346 | 79,913 | 81,511 | 83,141 | 84,804 |
| Direct Operating Expenses | 6,237,266 | 6,368,047 | 6,501,625 | 6,638,062 | 6,777,419 | 6,919,761 | 7,065,154 | 7,213,665 | 7,365,362 | 7,520,316 | 7,678,598 |
| Additional Fund Balance available to Pay Debt Service | - | - | - | - | - | - | - | - | - | - | - |
| NET REVENUES AVAILABLE TO PAY DEBT SERVICE | 5,021,960 | 5,178,503 | 5,340,426 | 5,507,908 | 5,681,135 | 5,860,299 | 6,045,597 | 6,237,235 | 6,435,422 | 6,640,376 | 6,852,323 |
| Existing Authority Debt Service | - | - | - | - | - | - | - | - | - | - | - |
| Existing City Debt Service after FY 2014 Reversion | - | - | - | - | - | - | - | - | - | - | - |
| Debt Service for New Facility | 2,209,620 | 2,207,906 | 2,584,680 | 2,582,668 | 2,580,566 | 761,246 | 760,832 | 760,400 | 759,948 | 759,476 | 758,983 |
| Total Debt Service | 2,209,620 | 2,207,906 | 2,584,680 | 2,582,668 | 2,580,566 | 761,246 | 760,832 | 760,400 | 759,948 | 759,476 | 758,983 |
| NET CASH SURPLUS/(DEFICIT) | 2,812,340 | 2,970,597 | 2,755,745 | 2,925,239 | 3,100,569 | 5,099,053 | 5,284,765 | 5,476,835 | 5,675,474 | 5,880,900 | 6,093,340 |
| Debt Service Coverage (Minimum of 1.15x Required) | 2.27 | 2.35 | 2.07 | 2.13 | 2.20 | 7.70 | 7.95 | 8.20 | 8.47 | 8.74 | 9.03 |
| Projected Water Sale Rate | \$8.35 | \$8.52 | \$8.69 | \$8.86 | \$9.04 | \$9.22 | \$9.40 | \$9.59 | \$9.78 | \$9.98 | \$10.18 |
| Projected Sewer Sale Rate | \$10.82 | \$11.04 | \$11.26 | \$11.48 | \$11.71 | \$11.95 | \$12.19 | \$12.43 | \$12.68 | \$12.93 | \$13.19 |
| Minimum Water Rate to Achieve 1.00x coverage (Balanced Budget) | \$4.91 | \$4.92 | \$5.38 | \$5.39 | \$5.39 | \$3.28 | \$3.31 | \$3.34 | \$3.37 | \$3.40 | \$3.43 |
| Minimum Water Rate to Achieve 1.15x coverage | \$5.31 | \$5.32 | \$5.85 | \$5.85 | \$5.85 | \$3.42 | \$3.44 | \$3.47 | \$3.50 | \$3.53 | \$3.56 |

${ }^{1}$ The sum of $\$ 196,400$ for expanding Highpoint WTP to 1.0 MGD and:
${ }^{2}$ Full purchases from Lynchburg for FY 2012-FY 2015 and 100,000 ga

| Bedford County Public Service Authority Appendix D- Pro-Forma with New Facility in Three Phases |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Revenue Sources | 2045 | 2046 | 2047 | 2048 | 2049 | 2050 | 2051 | 2052 | 2053 | 2054 |
| Water Sales | \$10,927,373 | \$11,227,900 | \$11,537,207 | \$11,855,558 | \$12,183,223 | \$12,520,479 | \$12,867,614 | \$13,224,922 | \$13,592,708 | \$13,971,285 |
| Sewer Sales | 2,648,062 | 2,722,668 | 2,799,474 | 2,878,546 | 2,959,950 | 3,043,758 | 3,130,041 | 3,218,873 | 3,310,331 | 3,404,493 |
| Penalties | 80,734 | 82,348 | 83,995 | 85,675 | 87,389 | 89,137 | 90,919 | 92,738 | 94,592 | 96,484 |
| Facility Fees | - | - | - | - | - | - | - | - | - | - |
| Administrative Fees | 110,817 | 113,033 | 115,294 | 117,600 | 119,951 | 122,351 | 124,798 | 127,293 | 129,839 | 132,436 |
| Interest | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 |
| Rental \& Service Charges | 208,966 | 213,145 | 217,408 | 221,756 | 226,191 | 230,715 | 235,329 | 240,036 | 244,837 | 249,733 |
| Contract Operations | 176,845 | 180,382 | 183,990 | 187,670 | 191,423 | 195,251 | 199,157 | 203,140 | 207,202 | 211,346 |
| Miscellaneous | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 |
| Bedford County CIP Contribution for Debt | - | - | - | - | - | - | - | - | - | - |
| Revenue from Operations | 14,158,796 | 14,545,477 | 14,943,369 | 15,352,805 | 15,774,128 | 16,207,691 | 16,653,857 | 17,113,002 | 17,585,510 | 18,071,779 |

## Other Non Operating Revenue Sources

| Net Surplus from City of Bedford Pro Forma after 2014 Reversion | 752,978 | 758,093 | 763,260 | 768,480 | 773,754 | 779,084 | 784,469 | 789,911 | 795,411 | 800,969 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| DEQ Contributions for Capital Projects | - | - | - | - | - | - | - | - | - | - |
| Line Dedications | - |  |  | - | - | - | - | - |  | - |
| Prepay Redemptions | - | - | - | - | - | - | - | - |  |  |
| Miscellaneous | - | - |  | - | - | - | - | - |  |  |
| Other Revenue \& Support | 752,978 | 758,093 | 763,260 | 768,480 | 773,754 | 779,084 | 784,469 | 789,911 | 795,411 | 800,969 |
| TOTAL REVENUES | \$14,911,775 | \$15,303,569 | \$15,706,628 | \$16,121,284 | \$16,547,882 | \$16,986,774 | \$17,438,326 | \$17,902,913 | \$18,380,921 | \$18,872,748 |
| Operating Expenditures | 2045 | 2046 | 2047 | 2048 | 2049 | 2050 | 2051 | 2052 | 2053 | 2054 |
| Personnel Costs | 3,632,646 | 3,705,299 | 3,779,405 | 3,854,993 | 3,932,093 | 4,010,735 | 4,090,950 | 4,172,769 | 4,256,224 | 4,341,349 |
| Administration | 473,838 | 483,314 | 492,981 | 502,840 | 512,897 | 523,155 | 533,618 | 544,291 | 555,176 | 566,280 |
| Customer Service and Billing Costs | 144,210 | 147,094 | 150,036 | 153,036 | 156,097 | 159,219 | 162,403 | 165,652 | 168,965 | 172,344 |
| Design \& Facilities Services | 53,355 | 54,422 | 55,511 | 56,621 | 57,754 | 58,909 | 60,087 | 61,289 | 62,514 | 63,765 |
| Vehicle \& Equipment Services | 223,842 | 228,319 | 232,885 | 237,543 | 242,294 | 247,140 | 252,082 | 257,124 | 262,266 | 267,512 |
| Increased Expenditures from New Facility ${ }^{1}$ | 1,129,615 | 1,152,207 | 1,175,251 | 1,198,756 | 1,222,731 | 1,247,186 | 1,272,130 | 1,297,572 | 1,323,524 | 1,349,994 |
|  | 5,657,506 | 5,770,656 | 5,886,069 | 6,003,790 | 6,123,866 | 6,246,344 | 6,371,270 | 6,498,696 | 6,628,670 | 6,761,243 |
| Water Purchases from Lynchburg ${ }^{2}$ | 271,069 | 279,201 | 287,577 | 296,204 | 305,090 | 314,243 | 323,670 | 333,380 | 343,382 | 353,683 |
| Other Water Operations | 646,609 | 659,541 | 672,732 | 686,186 | 699,910 | 713,908 | 728,186 | 742,750 | 757,605 | 772,757 |
| Total Water Operations | 917,677 | 938,742 | 960,308 | 982,390 | 1,005,000 | 1,028,151 | 1,051,856 | 1,076,130 | 1,100,987 | 1,126,440 |
| Sewer Treatment Purchases from Lynchburg | 564,485 | 581,420 | 598,863 | 616,828 | 635,333 | 654,393 | 674,025 | 694,246 | 715,073 | 736,525 |
| Other Sewer Operations | 614,113 | 626,395 | 638,923 | 651,702 | 664,736 | 678,030 | 691,591 | 705,423 | 719,531 | 733,922 |
| Total Sewer Operations | 1,178,598 | 1,207,815 | 1,237,786 | 1,268,530 | 1,300,069 | 1,332,424 | 1,365,616 | 1,399,669 | 1,434,604 | 1,470,447 |
| Contract Operations | 86,500 | 88,230 | 89,995 | 91,795 | 93,631 | 95,503 | 97,414 | 99,362 | 101,349 | 103,376 |
| Direct Operating Expenses | 7,840,282 | 8,005,443 | 8,174,158 | 8,346,506 | 8,522,566 | 8,702,422 | 8,886,156 | 9,073,857 | 9,265,610 | 9,461,507 |
| Additional Fund Balance available to Pay Debt Service | - | - | - | - | - | - | - | - | - | - |
| NET REVENUES AVAILABLE TO PAY DEBT SERVICE | 7,071,493 | 7,298,126 | 7,532,470 | 7,774,779 | 8,025,316 | 8,284,353 | 8,552,170 | 8,829,056 | 9,115,311 | 9,411,241 |

revenues available to pay debt service

Existing City Debt Service after FY 2014 Reversion
Debt Service for New Facility
Total Debt Service

|  |  |  | - | - |  | - |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 758,467 | 757,928 | 757,365 | 756,777 | 376,155 | 375,907 | 375,647 | 375,375 | 375,091 | 374,794 |
| 758,467 | 757,928 | 757,365 | 756,777 | 376,155 | 375,907 | 375,647 | 375,375 | 375,091 | 374,794 |
| 6,313,026 | 6,540,198 | 6,775,105 | 7,018,002 | 7,649,160 | 7,908,446 | 8,176,523 | 8,453,681 | 8,740,220 | 9,036,447 |
| 9.32 | 9.63 | 9.95 | 10.27 | 21.34 | 22.04 | 22.77 | 23.52 | 24.30 | 25.11 |
| \$10.38 | \$10.59 | \$10.80 | \$11.02 | \$11.24 | \$11.46 | \$11.69 | \$11.92 | \$12.16 | \$12.41 |
| \$13.46 | \$13.72 | \$14.00 | \$14.28 | \$14.56 | \$14.86 | \$15.15 | \$15.46 | \$15.77 | \$16.08 |
| \$3.46 | \$3.49 | \$3.52 | \$3.55 | \$3.18 | \$3.21 | \$3.24 | \$3.28 | \$3.31 | \$3.35 |
| \$3.58 | \$3.61 | \$3.64 | \$3.67 | \$3.24 | \$3.27 | \$3.30 | \$3.34 | \$3.37 | \$3.40 |

[^3]Bedford County Public Service Authority
Appendix D- Pro-Forma with New Facility in Three Phases

| Revenue Sources | 2055 | 2056 | 2057 | 2058 | 2059 | 2060 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Water Sales | \$14,360,976 | \$14,762,113 | \$15,175,039 | \$15,600,106 | \$16,037,679 | \$16,488,130 |
| Sewer Sales | 3,501,442 | 3,601,259 | 3,704,031 | 3,809,848 | 3,918,799 | 4,030,980 |
| Penalties | 98,414 | 100,382 | 102,390 | 104,438 | 106,526 | 108,657 |
| Facility Fees | - | - | - | - | - | - |
| Administrative Fees | 135,085 | 137,787 | 140,542 | 143,353 | 146,220 | 149,145 |
| Interest | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 |
| Rental \& Service Charges | 254,728 | 259,823 | 265,019 | 270,320 | 275,726 | 281,240 |
| Contract Operations | 215,573 | 219,885 | 224,283 | 228,768 | 233,344 | 238,010 |
| Miscellaneous | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 |
| Bedford County CIP Contribution for Debt | - | - | - | - | - | - |
| Revenue from Operations | 18,572,218 | 19,087,249 | 19,617,304 | 20,162,833 | 20,724,294 | 21,302,163 |

Other Non Operating Revenue Sources

| Net Surplus from City of Bedford Pro Forma after 2014 Reversion | 806,586 | 812,264 | 818,003 | 823,805 | 829,669 | 835,598 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| DEQ Contributions for Capital Projects | - | - | - | - |  | - |
| Line Dedications | - | - | - |  |  |  |
| Prepay Redemptions | - | - | - | - |  |  |
| Miscellaneous | - | - | - |  |  |  |
| Other Revenue \& Support | 806,586 | 812,264 | 818,003 | 823,805 | 829,669 | 835,598 |
| total revenues | \$19,378,804 | \$19,899,512 | \$20,435,308 | \$20,986,637 | \$21,553,963 | \$22,137,761 |
| Operating Expenditures | 2055 | 2056 | 2057 | 2058 | 2059 | 2060 |
| Personnel Costs | 4,428,176 | 4,516,739 | 4,607,074 | 4,699,215 | 4,793,200 | 4,889,064 |
| Administration | 577,606 | 589,158 | 600,941 | 612,960 | 625,219 | 637,723 |
| Customer Service and Billing Costs | 175,791 | 179,307 | 182,893 | 186,551 | 190,282 | 194,087 |
| Design \& Facilities Services | 65,040 | 66,341 | 67,668 | 69,021 | 70,401 | 71,809 |
| Vehicle \& Equipment Services | 272,862 | 278,319 | 283,886 | 289,563 | 295,355 | 301,262 |
| Increased Expenditures from New Facility ${ }^{1}$ | 1,376,994 | 1,404,534 | 1,432,625 | 1,461,277 | 1,490,503 | 1,520,313 |
|  | 6,896,468 | 7,034,397 | 7,175,085 | 7,318,587 | 7,464,959 | 7,614,258 |
| Water Purchases from Lynchburg ${ }^{2}$ | 364,294 | 375,222 | 386,479 | 398,073 | 410,016 | 422,316 |
| Other Water Operations | 788,212 | 803,977 | 820,056 | 836,457 | 853,186 | 870,250 |
| Total Water Operations | 1,152,506 | 1,179,199 | 1,206,535 | 1,234,531 | 1,263,202 | 1,292,566 |
| Sewer Treatment Purchases from Lynchburg | 758,621 | 781,380 | 804,821 | 828,966 | 853,835 | 879,450 |
| Other Sewer Operations | 748,600 | 763,572 | 778,844 | 794,421 | 810,309 | 826,515 |
| Total Sewer Operations | 1,507,221 | 1,544,952 | 1,583,665 | 1,623,386 | 1,664,144 | 1,705,965 |
| Contract Operations | 105,444 | 107,552 | 109,703 | 111,898 | 114,135 | 116,418 |
| Direct Operating Expenses | 9,661,639 | 9,866,101 | 10,074,989 | 10,288,402 | 10,506,440 | 10,729,207 |
| Additional Fund Balance available to Pay Debt Service | - | - | - | - | - |  |
| NET REVENUES AVAILABLE TO PAY DEBT SERVICE | 9,717,165 | 10,033,412 | 10,360,319 | 10,698,236 | 11,047,523 | 11,408,553 |
| Existing Authority Debt Service | - | - | - | - |  |  |
| Existing City Debt Service after FY 2014 Reversion | - | - | - | - | - |  |
| Debt Service for New Facility | 374,484 | 374,160 | 373,821 | 373,467 | - |  |
| Total Debt Service | 374,484 | 374,160 | 373,821 | 373,467 | - | - |
| NET CASH SURPLUS/(DEFICIT) | 9,342,681 | 9,659,252 | 9,986,497 | 10,324,768 | 11,047,523 | 11,408,553 |
| Debt Service Coverage (Minimum of 1.15x Required) | 25.95 | 26.82 | 27.71 | 28.65 | - | - |
| Projected Water Sale Rate | \$12.65 | \$12.91 | \$13.16 | \$13.43 | \$13.70 | \$13.97 |
| Projected Sewer Sale Rate | \$16.40 | \$16.73 | \$17.06 | \$17.41 | \$17.75 | \$18.11 |
| Minimum Water Rate to Achieve 1.00x coverage (Balanced Budget) | \$3.38 | \$3.41 | \$3.45 | \$3.48 | \$3.16 | \$3.20 |
| Minimum Water Rate to Achieve 1.15x coverage | \$3.44 | \$3.47 | \$3.50 | \$3.54 | \$3.16 | \$3.20 |

[^4]Appendix E
Case IV - Pro-Forma Financial Model with New Facility Built in Three Phases and No City Reversion Agreement

| Bedford County Public Service Authority <br> Appendix E- Pro-Forma with New Facility in Three Phases and <br> No City Contribution | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Revenue Sources |  |  |  |  |  |  |  |  |  |  |  |
| Water Sales | \$4,597,798 | \$4,715,423 | \$4,836,387 | \$4,960,791 | \$5,088,735 | \$5,220,324 | \$5,355,666 | \$5,494,873 | \$5,638,058 | \$5,785,339 | \$5,936,839 |
| Sewer Sales | 1,083,770 | 1,112,637 | 1,142,337 | 1,172,894 | 1,204,335 | 1,236,686 | 1,269,973 | 1,304,226 | 1,339,471 | 1,375,740 | 1,413,062 |
| Penalties | 42,000 | 42,840 | 43,697 | 44,571 | 45,462 | 46,371 | 47,299 | 48,245 | 49,210 | 50,194 | 51,198 |
| Facility Fees | - | - | - | - | - | - | - | - | - | - | - |
| Administrative Fees | 57,650 | 58,803 | 59,979 | 61,179 | 62,402 | 63,650 | 64,923 | 66,222 | 67,546 | 68,897 | 70,275 |
| Interest | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 |
| Rental \& Service Charges | 108,710 | 110,884 | 113,102 | 115,364 | 117,671 | 120,025 | 122,425 | 124,874 | 127,371 | 129,919 | 132,517 |
| Contract Operations | 92,000 | 93,840 | 95,717 | 97,631 | 99,584 | 101,575 | 103,607 | 105,679 | 107,793 | 109,949 | 112,147 |
| Miscellaneous | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 |
| Bedford County CIP Contribution for Debt | 1,996,485 | 2,000,000 | 2,000,000 | 2,000,000 | 1,993,831 | 1,995,615 | 1,992,132 | 1,989,944 | 1,990,298 | 1,990,595 | 1,985,931 |
| Revenue from Operations | 7,984,413 | 8,140,427 | 8,297,219 | 8,458,429 | 8,618,020 | 8,790,247 | 8,962,026 | 9,140,061 | 9,325,747 | 9,516,632 | 9,707,969 |
| Other Non Operating Revenue Sources |  |  |  |  |  |  |  |  |  |  |  |
| Net Surplus from City of Bedford Pro Forma after 2014 Reversion | - | - |  | - | - | - | - | - | - | - | - |
| DEQ Contributions for Capital Projects | - | - |  | - | - |  | - | - | - | - |  |
| Line Dedications | - | - |  | - | - | - | - | - | - |  |  |
| Prepay Redemptions | - | - | - | - | - | - | - | - | - | - | - |
| Miscellaneous | - | - | - | - | - | - | - | - | - | - | - |
| Other Revenue \& Support | - | - | - | - | - | - | - | - | - | - |  |
| total revenues | \$7,984,413 | \$8,140,427 | \$8,297,219 | \$8,458,429 | \$8,618,020 | \$8,790,247 | \$8,962,026 | \$9,140,061 | \$9,325,747 | \$9,516,632 | \$9,707,969 |
| Operating Expenditures | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| Personnel Costs | 1,889,807 | 1,927,603 | 1,966,155 | 2,005,478 | 2,045,588 | 2,086,500 | 2,128,230 | 2,170,794 | 2,214,210 | 2,258,494 | 2,303,664 |
| Administration | 246,504 | 251,434 | 256,463 | 261,592 | 266,824 | 272,160 | 277,604 | 283,156 | 288,819 | 294,595 | 300,487 |
| Customer Service and Billing Costs | 75,022 | 76,522 | 78,053 | 79,614 | 81,206 | 82,830 | 84,487 | 86,177 | 87,900 | 89,658 | 91,451 |
| Design \& Facilities Services | 27,757 | 28,312 | 28,878 | 29,456 | 30,045 | 30,646 | 31,259 | 31,884 | 32,522 | 33,172 | 33,836 |
| Vehicle \& Equipment Services | 116,449 | 118,778 | 121,154 | 123,577 | 126,048 | 128,569 | 131,140 | 133,763 | 136,439 | 139,167 | 141,951 |
| Increased Expenditures from New Facility ${ }^{1}$ | - | - | - | - | 636,100 | 648,822 | 661,798 | 675,034 | 688,535 | 702,306 | 716,352 |
|  | 2,355,539 | 2,402,650 | 2,450,703 | 2,499,717 | 3,185,811 | 3,249,527 | 3,314,518 | 3,380,808 | 3,448,424 | 3,517,393 | 3,587,741 |
| Water Purchases from Lynchburg ${ }^{2}$ | 1,738,456 | 1,790,609 | 1,844,328 | 1,899,657 | 115,027 | 118,478 | 122,032 | 125,693 | 129,464 | 133,348 | 137,348 |
| Other Water Operations | 336,384 | 343,112 | 349,974 | 356,974 | 364,113 | 371,396 | 378,823 | 386,400 | 394,128 | 402,010 | 410,051 |
| Total Water Operations | 2,074,840 | 2,133,721 | 2,194,302 | 2,256,631 | 479,140 | 489,873 | 500,856 | 512,093 | 523,592 | 535,358 | 547,399 |
| Sewer Treatment Purchases from Lynchburg | 212,826 | 219,211 | 225,787 | 232,560 | 239,537 | 246,723 | 254,125 | 261,749 | 269,601 | 277,689 | 286,020 |
| Other Sewer Operations | 319,479 | 325,869 | 332,386 | 339,034 | 345,815 | 352,731 | 359,785 | 366,981 | 374,321 | 381,807 | 389,443 |
| Total Sewer Operations | 532,305 | 545,079 | 558,173 | 571,594 | 585,352 | 599,454 | 613,911 | 628,730 | 643,922 | 659,497 | 675,463 |
| Contract Operations | 45,000 | 45,900 | 46,818 | 47,754 | 48,709 | 49,684 | 50,677 | 51,691 | 52,725 | 53,779 | 54,855 |
| Direct Operating Expenses | 5,007,684 | 5,127,350 | 5,249,996 | 5,375,697 | 4,299,013 | 4,388,539 | 4,479,961 | 4,573,322 | 4,668,663 | 4,766,027 | 4,865,458 |
| Additional Fund Balance available to Pay Debt Service | - | - | - | - | - | - | - | - | - | - | - |
| NET REVENUES AVAILABLE TO PAY DEBT SERVICE | 2,976,729 | 3,013,076 | 3,047,223 | 3,082,733 | 4,319,007 | 4,401,708 | 4,482,064 | 4,566,739 | 4,657,084 | 4,750,605 | 4,842,511 |
| Existing Authority Debt Service | 2,757,127 | 2,664,415 | 2,636,183 | 2,632,824 | 2,171,926 | 2,171,368 | 2,150,787 | 2,092,818 | 2,065,775 | 2,000,116 | 1,985,931 |
| Existing City Debt Service after FY 2014 Reversion | - | - | - | - | - | - | - | - | - | - | - |
| Debt Service for New Facility | - | - | - | - | 1,843,752 | 1,843,068 | 1,842,353 | 1,841,607 | 1,840,826 | 1,840,011 | 1,839,158 |
| Total Debt Service | 2,757,127 | 2,664,415 | 2,636,183 | 2,632,824 | 4,015,678 | 4,014,437 | 3,993,141 | 3,934,425 | 3,906,601 | 3,840,127 | 3,825,089 |
| NET CASH SURPLUS/(DEFICIT) | 219,602 | 348,661 | 411,040 | 449,908 | 303,329 | 387,271 | 488,923 | 632,314 | 750,482 | 910,479 | 1,017,422 |
| Debt Service Coverage (Minimum of 1.15x Required) | 1.08 | 1.13 | 1.16 | 1.17 | 1.08 | 1.10 | 1.12 | 1.16 | 1.19 | 1.24 | 1.27 |
| Projected Water Sale Rate | \$5.40 | \$5.51 | \$5.62 | \$5.73 | \$5.85 | \$5.96 | \$6.08 | \$6.20 | \$6.33 | \$6.45 | \$6.58 |
| Projected Sewer Sale Rate | \$7.00 | \$7.14 | \$7.28 | \$7.43 | \$7.58 | \$7.73 | \$7.88 | \$8.04 | \$8.20 | \$8.37 | \$8.53 |
| Minimum Water Rate to Achieve 1.00x coverage (Balanced Budget) | \$5.07 | \$4.98 | \$5.00 | \$5.07 | \$5.40 | \$5.40 | \$5.38 | \$5.30 | \$5.27 | \$5.19 | \$5.18 |
| Minimum Water Rate to Achieve 1.15x coverage | \$5.70 | \$5.58 | \$5.59 | \$5.65 | \$6.28 | \$6.27 | \$6.24 | \$6.14 | \$6.10 | \$5.99 | \$5.97 |


| Bedford County Public Service Authority Appendix E- Pro-Forma with New Facility in Three Phases and No City Contribution |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Revenue Sources | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 |
| Water Sales | \$6,092,682 | \$6,252,997 | \$6,417,916 | \$6,587,577 | \$6,762,120 | \$6,941,690 | \$7,126,437 | \$7,316,514 | \$7,512,080 | \$7,713,299 | \$7,920,337 |
| Sewer Sales | 1,451,469 | 1,490,993 | 1,531,668 | 1,573,527 | 1,616,607 | 1,660,943 | 1,706,574 | 1,753,537 | 1,801,873 | 1,851,622 | 1,902,827 |
| Penalties | 52,222 | 53,266 | 54,331 | 55,418 | 56,526 | 57,657 | 58,810 | 59,986 | 61,186 | 62,410 | 63,658 |
| Facility Fees | - | - | - | - | - | - |  | - | - | - | - |
| Administrative Fees | 71,681 | 73,114 | 74,576 | 76,068 | 77,589 | 79,141 | 80,724 | 82,338 | 83,985 | 85,665 | 87,378 |
| Interest | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 |
| Rental \& Service Charges | 135,167 | 137,871 | 140,628 | 143,441 | 146,309 | 149,236 | 152,220 | 155,265 | 158,370 | 161,537 | 164,768 |
| Contract Operations | 114,390 | 116,678 | 119,012 | 121,392 | 123,820 | 126,296 | 128,822 | 131,399 | 134,027 | 136,707 | 139,441 |
| Miscellaneous | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 |
| Bedford County CIP Contribution for Debt | 1,988,484 | 963,066 | 960,213 | 955,173 | - | - | - | - | - | - | - |
| Revenue from Operations | 9,912,095 | 9,093,985 | 9,304,344 | 9,518,596 | 8,788,972 | 9,020,964 | 9,259,588 | 9,505,039 | 9,757,521 | 10,017,240 | 10,284,410 |

## Other Non Operating Revenue Sources

Net Surplus from City of Bedford Pro Forma after 2014 Reversion
DEQ Contributions for Capital Projects
Line Dedications
Prepay Redemptions
Miscellaneous
Other Revenue \& Support
total revenues
Operating Expenditures
Personnel Costs
Administration
Customer Service and Billing Costs
Customer Service and Billing C
Design \& Facilities Services
Vehicle \& Equipment Service
Increased Expenditures from New Facility ${ }^{1}$

Water Purchases from Lynchburg ${ }^{2}$
Other Water Operations

Sewer Treatment Purchases from Lynchburg
Other Sewer Operation
Total Sewer Operations
Contract Operations
Direct Operating Expenses
Additional Fund Balance available to Pay Debt Service net revenues available to pay debt service

Existing Authority Debt Service
Existing City Debt Service after FY 2014 Reversion
Debt Service for New Facility
Total Debt Service
NET CASH SURPLUS/(DEFICIT)


| Bedford County Public Service Authority Appendix E- Pro-Forma with New Facility in Three Phases and No City Contribution |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Revenue Sources | 2034 | 2035 | 2036 | 2037 | 2038 | 2039 | 2040 | 2041 | 2042 | 2043 | 2044 |
| Water Sales | \$8,133,369 | \$8,352,573 | \$8,578,133 | \$8,810,238 | \$9,049,083 | \$9,294,869 | \$9,547,802 | \$9,808,096 | \$10,075,971 | \$10,351,652 | \$10,635,373 |
| Sewer Sales | 1,955,531 | 2,009,780 | 2,065,618 | 2,123,094 | 2,182,257 | 2,243,158 | 2,305,847 | 2,370,379 | 2,436,809 | 2,505,193 | 2,575,591 |
| Penalties | 64,931 | 66,230 | 67,554 | 68,905 | 70,284 | 71,689 | 73,123 | 74,585 | 76,077 | 77,599 | 79,151 |
| Facility Fees |  |  |  |  |  |  |  |  |  |  |  |
| Administrative Fees | 89,126 | 90,908 | 92,726 | 94,581 | 96,473 | 98,402 | 100,370 | 102,377 | 104,425 | 106,513 | 108,644 |
| Interest | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 |
| Rental \& Service Charges | 168,063 | 171,425 | 174,853 | 178,350 | 181,917 | 185,556 | 189,267 | 193,052 | 196,913 | 200,851 | 204,868 |
| Contract Operations | 142,230 | 145,075 | 147,976 | 150,936 | 153,954 | 157,034 | 160,174 | 163,378 | 166,645 | 169,978 | 173,378 |
| Miscellaneous | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 |
| Bedford County CIP Contribution for Debt | - | - | - | - | - |  |  |  | - | - |  |
| Revenue from Operations | 10,559,251 | 10,841,990 | 11,132,862 | 11,432,105 | 11,739,968 | 12,056,707 | 12,382,583 | 12,717,868 | 13,062,840 | 13,417,787 | 13,783,004 |

## Other Non Operating Revenue Sources

Net Surplus from City of Bedford Pro Forma after 2014 Reversion DEQ Contributions for Capital Projects
Line Dedications
Prepay Redemptions
Miscellaneous
Other Revenue \& Support
total revenues

| $\$ 10,559,251$ | $\$ 10,841,990$ | $\$ 11,132,862$ | $\$ 11,432,105$ | $\$ 11,739,968$ | $\$ 12,056,707$ | $\$ 12,382,583$ | $\$ 12,717,868$ | $\$ 13,062,840$ | $\$ 13,417,787$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

## Operating Expenditures

Personnel Costs
Administration
Customer Service and Billing Costs
Vehicle \& Equipment Services
Increased Expenditures from New Facility ${ }^{1}$

Water Purchases from Lynchburg ${ }^{2}$
Other Water Operation
Sewer Treatment Purchases from Lynchburg
Other Sewer Operations
Total Sewer Operations
Contract Operations
Direct Operating Expenses
Additional Fund Balance available to Pay Debt Service Net revenues available to pay debt service

Existing Authority Debt Service
Existing City Debt Service after FY 2014 Reversion
Debt Service for New Facility
Total Debt Service
NET CASH SURPLUS/(DEFICIT)

| Debt Service Coverage (Minimum of 1.15x Required) | 1.96 | 2.03 | 1.79 | 1.86 | 1.92 | 6.75 | 6.99 | 7.24 | 7.50 | 7.77 | 8.04 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Projected Water Sale Rate | \$8.35 | \$8.52 | \$8.69 | \$8.86 | \$9.04 | \$9.22 | \$9.40 | \$9.59 | \$9.78 | \$9.98 | \$10.18 |
| Projected Sewer Sale Rate | \$10.82 | \$11.04 | \$11.26 | \$11.48 | \$11.71 | \$11.95 | \$12.19 | \$12.43 | \$12.68 | \$12.93 | \$13.19 |
| Minimum Water Rate to Achieve 1.00x coverage (Balanced Budget) | \$5.76 | \$5.77 | \$6.23 | \$6.23 | \$6.24 | \$4.12 | \$4.15 | \$4.18 | \$4.20 | \$4.23 | \$4.26 |
| Minimum Water Rate to Achieve 1.15x coverage | \$6.17 | \$6.17 | \$6.70 | \$6.69 | \$6.69 | \$4.26 | \$4.28 | \$4.31 | \$4.33 | \$4.36 | \$4.38 |


| Bedford County Public Service Authority Appendix E- Pro-Forma with New Facility in Three Phases and No City Contribution |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Revenue Sources | 2045 | 2046 | 2047 | 2048 | 2049 | 2050 | 2051 | 2052 | 2053 | 2054 |
| Water Sales | \$10,927,373 | \$11,227,900 | \$11,537,207 | \$11,855,558 | \$12,183,223 | \$12,520,479 | \$12,867,614 | \$13,224,922 | \$13,592,708 | \$13,971,285 |
| Sewer Sales | 2,648,062 | 2,722,668 | 2,799,474 | 2,878,546 | 2,959,950 | 3,043,758 | 3,130,041 | 3,218,873 | 3,310,331 | 3,404,493 |
| Penalties | 80,734 | 82,348 | 83,995 | 85,675 | 87,389 | 89,137 | 90,919 | 92,738 | 94,592 | 96,484 |
| Facility Fees |  |  |  |  |  |  |  |  |  | - |
| Administrative Fees | 110,817 | 113,033 | 115,294 | 117,600 | 119,951 | 122,351 | 124,798 | 127,293 | 129,839 | 132,436 |
| Interest | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 |
| Rental \& Service Charges | 208,966 | 213,145 | 217,408 | 221,756 | 226,191 | 230,715 | 235,329 | 240,036 | 244,837 | 249,733 |
| Contract Operations | 176,845 | 180,382 | 183,990 | 187,670 | 191,423 | 195,251 | 199,157 | 203,140 | 207,202 | 211,346 |
| Miscellaneous | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 |
| Bedford County CIP Contribution for Debt | - | - | - | - |  | - |  |  |  | - |
| Revenue from Operations | 14,158,796 | 14,545,477 | 14,943,369 | 15,352,805 | 15,774,128 | 16,207,691 | 16,653,857 | 17,113,002 | 17,585,510 | 18,071,779 |

## Other Non Operating Revenue Sources

Net Surplus from City of Bedford Pro Forma after 2014 Reversion
DEQ Contributions for Capital Projects
Line Dedications
Prepay Redemptions
Miscellaneous
Other Revenue \& Suppor
total revenues

| \$14,158,796 | \$14,545,477 | \$14,943,369 | \$15,352,805 | \$15,774,128 | \$16,207,691 | \$16,653,857 | \$17,113,002 | \$17,585,510 | \$18,071,779 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2045 | 2046 | 2047 | 2048 | 2049 | 2050 | 2051 | 2052 | 2053 | 2054 |
| 3,632,646 | 3,705,299 | 3,779,405 | 3,854,993 | 3,932,093 | 4,010,735 | 4,090,950 | 4,172,769 | 4,256,224 | 4,341,349 |
| 473,838 | 483,314 | 492,981 | 502,840 | 512,897 | 523,155 | 533,618 | 544,291 | 555,176 | 566,280 |
| 144,210 | 147,094 | 150,036 | 153,036 | 156,097 | 159,219 | 162,403 | 165,652 | 168,965 | 172,344 |
| 53,355 | 54,422 | 55,511 | 56,621 | 57,754 | 58,909 | 60,087 | 61,289 | 62,514 | 63,765 |
| 223,842 | 228,319 | 232,885 | 237,543 | 242,294 | 247,140 | 252,082 | 257,124 | 262,266 | 267,512 |
| 1,129,615 | 1,152,207 | 1,175,251 | 1,198,756 | 1,222,731 | 1,247,186 | 1,272,130 | 1,297,572 | 1,323,524 | 1,349,994 |
| 5,657,506 | 5,770,656 | 5,886,069 | 6,003,790 | 6,123,866 | 6,246,344 | 6,371,270 | 6,498,696 | 6,628,670 | 6,761,243 |
| 271,069 | 279,201 | 287,577 | 296,204 | 305,090 | 314,243 | 323,670 | 333,380 | 343,382 | 353,683 |
| 646,609 | 659,541 | 672,732 | 686,186 | 699,910 | 713,908 | 728,186 | 742,750 | 757,605 | 772,757 |
| 917,677 | 938,742 | 960,308 | 982,390 | 1,005,000 | 1,028,151 | 1,051,856 | 1,076,130 | 1,100,987 | 1,126,440 |
| 564,485 | 581,420 | 598,863 | 616,828 | 635,333 | 654,393 | 674,025 | 694,246 | 715,073 | 736,525 |
| 614,113 | 626,395 | 638,923 | 651,702 | 664,736 | 678,030 | 691,591 | 705,423 | 719,531 | 733,922 |
| 1,178,598 | 1,207,815 | 1,237,786 | 1,268,530 | 1,300,069 | 1,332,424 | 1,365,616 | 1,399,669 | 1,434,604 | 1,470,447 |
| 86,500 | 88,230 | 89,995 | 91,795 | 93,631 | 95,503 | 97,414 | 99,362 | 101,349 | 103,376 |
| 7,840,282 | 8,005,443 | 8,174,158 | 8,346,506 | 8,522,566 | 8,702,422 | 8,886,156 | 9,073,857 | 9,265,610 | 9,461,507 |

Direct Operating Expenses
Additional Fund Balance available to Pay Debt Service NET REVENUES AVAILABLE TO PAY DEBT SERVICE

Existing Authority Debt Service
Existing City Debt Service after FY 2014 Reversion
Debt Service for New Facility
Total Debt Service
NET CASH SURPLUS/(DEFICIT)

| Debt Service Coverage (Minimum of 1.15x Required) | 8.33 | 8.63 | 8.94 | 9.26 | 19.28 | 19.97 | 20.68 | 21.42 | 22.18 | 22.97 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Projected Water Sale Rate | \$10.38 | \$10.59 | \$10.80 | \$11.02 | \$11.24 | \$11.46 | \$11.69 | \$11.92 | \$12.16 | \$12.41 |
| Projected Sewer Sale Rate | \$13.46 | \$13.72 | \$14.00 | \$14.28 | \$14.56 | \$14.86 | \$15.15 | \$15.46 | \$15.77 | \$16.08 |
| Minimum Water Rate to Achieve 1.00x coverage (Balanced Budget) | \$4.28 | \$4.31 | \$4.34 | \$4.37 | \$3.99 | \$4.02 | \$4.06 | \$4.09 | \$4.12 | \$4.15 |
| Minimum Water Rate to Achieve 1.15x coverage | \$4.41 | \$4.43 | \$4.46 | \$4.49 | \$4.05 | \$4.08 | \$4.11 | \$4.14 | \$4.18 | \$4.21 |

Bedford County Public Service Authority
Appendix E- Pro-Forma with New Facility in Three Phases and

## No City Contribution

Revenue Sources
Water Sales
Penalties
Facility Fees
Administrative Fees
Interest
Rental \& Service Charges
Contract Operations
Miscellaneous Bedford County CIP Contribution for Debt
Revenue from Operations

| $\mathbf{2 0 5 5}$ | $\mathbf{2 0 5 6}$ | $\mathbf{2 0 5 7}$ | $\mathbf{2 0 5 8}$ | $\mathbf{2 0 5 9}$ | $\mathbf{2 0 6 0}$ |
| ---: | ---: | ---: | ---: | ---: | ---: |
| $\$ 14,360,976$ | $\$ 14,762,113$ | $\$ 15,175,039$ | $\$ 15,600,106$ | $\$ 16,037,679$ | $\$ 16,488,130$ |
| $3,501,442$ | $3,601,259$ | $3,704,031$ | $3,809,848$ | $3,918,799$ | $4,030,980$ |
| 98,414 | 100,382 | 102,390 | 104,438 | 106,526 | 108,657 |
| - | - | - | - | - |  |
| 135,085 | 137,787 | 140,542 | 143,353 | 146,220 | 149,145 |
| 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 |
| 254,728 | 259,823 | 265,019 | 270,320 | 257,726 | 281,20 |
| 215,573 | 219,885 | 224,283 | 228,768 | 233,344 | 238,010 |
| 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 |
|  | - | - | - | - | - |
| $18,572,218$ | $19,087,249$ | $19,617,304$ | $20,162,833$ | $20,724,294$ | $21,302,163$ |

Other Non Operating Revenue Sources
Net Surplus from City of Bedford Pro Forma after 2014 Reversion
DEQ Contributions for Capital Projects
Line Dedications
Prepay Redemptions
Miscellaneous
Other Revenue \& Support
TOTAL REVENUES

| $\$ 18,572,218$ | $\$ 19,087,249$ | $\$ 19,617,304$ | $\$ 20,162,833$ | $\$ 20,724,294$ | $\$ 21,302,163$ |
| :--- | :--- | :--- | :--- | :--- | :--- |

## Operating Expenditures

Personnel Costs
Administration
Customer Service and Billing Costs
Vehicle \& Equipment Service
Increased Expenditures from New Facility

Water Purchases from Lynchburg ${ }^{2}$
Other Water Operations
Total Water Operations
Sewer Treatment Purchases from Lynchburg
Other Sewer Operation
Total Sewer Operations
Contract Operations
Direct Operating Expenses
Additional Fund Balance available to Pay Debt Service Net revenues available to pay debt service

Existing Authority Debt Service
Existing City Debt Service after FY 2014 Reversion
Debt Service for New Facility
Total Debt Service
NET CASH SURPLUS/(DEFICIT)

| Debt Service Coverage (Minimum of 1.15x Required) |
| :--- |

## Appendix F

Case I Revised - Pro-Forma Financial Model with Water Purchases and No \$8.5 million Project

| Bedford County Public Service Authority Appendix F- Pro-Forma with Continuing Water Purchases and No $\$ 8.5$ million Project Revenue Sources |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 |
| Water Sales | \$4,597,798 | \$4,715,423 | \$4,836,387 | \$4,960,791 | \$5,088,735 | \$5,220,324 | \$5,355,666 | \$5,494,873 | \$5,638,058 | \$5,785,339 | \$5,936,839 | \$6,092,682 | \$6,252,997 | \$6,417,916 |
| Sewer Sales | 1,083,770 | 1,112,637 | 1,142,337 | 1,172,894 | 1,204,335 | 1,236,686 | 1,269,973 | 1,304,226 | 1,339,471 | 1,375,740 | 1,413,062 | 1,451,469 | 1,490,993 | 1,531,668 |
| Penalties | 42,000 | 42,840 | 43,697 | 44,571 | 45,462 | 46,371 | 47,299 | 48,245 | 49,210 | 50,194 | 51,198 | 52,222 | 53,266 | 54,331 |
| Facility Fees |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Administrative Fees | 57,650 | 58,803 | 59,979 | 61,179 | 62,402 | 63,650 | 64,923 | 66,222 | 67,546 | 68,897 | 70,275 | 71,681 | 73,114 | 74,576 |
| Interest | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 |
| Rental \& Service Charges | 108,710 | 110,884 | 113,102 | 115,364 | 117,671 | 120,025 | 122,425 | 124,874 | 127,371 | 129,919 | 132,517 | 135,167 | 137,871 | 140,628 |
| Contract Operations | 92,000 | 93,840 | 95,717 | 97,631 | 99,584 | 101,575 | 103,607 | 105,679 | 107,793 | 109,949 | 112,147 | 114,390 | 116,678 | 119,012 |
| Miscellaneous | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 |
| Bedford County CIP Contribution for Debt | 1,996,485 | 2,000,000 | 2,000,000 | 2,000,000 | 1,993,831 | 1,995,615 | 1,992,132 | 1,989,944 | 1,990,298 | 1,990,595 | 1,985,931 | 1,988,484 | 963,066 | 960,213 |
| Revenue from Operations | 7,984,413 | 8,140,427 | 8,297,219 | 8,458,429 | 8,618,020 | 8,790,247 | 8,962,026 | 9,140,061 | 9,325,747 | 9,516,632 | 9,707,969 | 9,912,095 | 9,093,985 | 9,304,344 |
| Other Non Operating Revenue Sources |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Net Surplus from City of Bedford Pro Forma after 2014 Reversion | - | - | 616,729 | 620,543 | 624,390 | 628,272 | 632,189 | 636,140 | 640,127 | 644,150 | 648,210 | 652,307 | 656,441 | 660,614 |
| DEQ Contributions for Capital Projects | - | - | - | - | - |  |  | - | . |  |  |  |  |  |
| Line Dedications | - | - | - | - | - | - | - | - | - | - |  |  |  |  |
| Prepay Redemptions | - | - |  | * | - |  |  |  |  |  |  |  |  |  |
| Miscellaneous | . |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Other Revenue \& Support | - |  | 616,729 | 620,543 | 624,390 | 628,272 | 632,189 | 636,140 | 640,127 | 644,150 | 648,210 | 652,307 | 656,441 | 660,614 |
| total revenues | \$7,984,413 | \$8,140,427 | \$8,913,947 | \$9,078,972 | \$9,242,410 | \$9,418,519 | \$9,594,214 | \$9,776,201 | \$9,965,874 | \$10,160,783 | \$10,356,179 | \$10,564,402 | \$9,750,426 | \$9,964,958 |
| Operating Expenditures | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 |
| Personnel Costs | 1,889,807 | 1,927,603 | 1,966,155 | 2,005,478 | 2,045,588 | 2,086,500 | 2,128,230 | 2,170,794 | 2,214,210 | 2,258,494 | 2,303,664 | 2,349,737 | 2,396,732 | 2,444,667 |
| Administration | 246,504 | 251,434 | 256,463 | 261,592 | 266,824 | 272,160 | 277,604 | 283,156 | 288,819 | 294,595 | 300,487 | 306,497 | 312,627 | 318,879 |
| Customer Service and Billing Costs | 75,022 | 76,522 | 78,053 | 79,614 | 81,206 | 82,830 | 84,487 | 86,177 | 87,900 | 89,658 | 91,451 | 93,280 | 95,146 | 97,049 |
| Design \& Facilities Services | 27,757 | 28,312 | 28,878 | 29,456 | 30,045 | 30,646 | 31,259 | 31,884 | 32,522 | 33,172 | 33,836 | 34,512 | 35,203 | 35,907 |
| Vehicle \& Equipment Services | 116,449 | 118,778 | 121,154 | 123,577 | 126,048 | 128,569 | 131,140 | 133,763 | 136,439 | 139,167 | 141,951 | 144,790 | 147,685 | 150,639 |
| Increased Expenditures from New Facility |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 2,355,539 | 2,402,650 | 2,450,703 | 2,499,717 | 2,549,711 | 2,600,705 | 2,652,719 | 2,705,774 | 2,759,889 | 2,815,087 | 2,871,389 | 2,928,817 | 2,987,393 | 3,047,141 |
| Water Purchases from Lynchburg | 1,738,456 | 1,790,609 | 1,844,328 | 1,899,657 | 1,956,647 | 2,015,347 | 2,075,807 | 2,138,081 | 2,202,224 | 2,268,290 | 2,336,339 | 2,406,429 | 2,478,622 | 2,552,981 |
| Other Water Operations | 336,384 | 343,112 | 349,974 | 356,974 | 364,113 | 371,396 | 378,823 | 386,400 | 394,128 | 402,010 | 410,051 | 418,252 | 426,617 | 435,149 |
| Total Water Operations | 2,074,840 | 2,133,721 | 2,194,302 | 2,256,631 | 2,320,760 | 2,386,742 | 2,454,630 | 2,524,481 | 2,596,351 | 2,670,301 | 2,746,390 | 2,824,681 | 2,905,239 | 2,988,130 |
| Sewer Treatment Purchases from Lynchburg | 212,826 | 219,211 | 225,787 | 232,560 | 239,537 | 246,723 | 254,125 | 261,749 | 269,601 | 277,689 | 286,020 | 294,601 | 303,439 | 312,542 |
| Other Sewer Operations | 319,479 | 325,869 | 332,386 | 339,034 | 345,815 | 352,731 | 359,785 | 366,981 | 374,321 | 381,807 | 389,443 | 397,232 | 405,177 | 413,280 |
| Total Sewer Operations | 532,305 | 545,079 | 558,173 | 571,594 | 585,352 | 599,454 | 613,911 | 628,730 | 643,922 | 659,497 | 675,463 | 691,833 | 708,616 | 725,822 |
| Contract Operations | 45,000 | 45,900 | 46,818 | 47,754 | 48,709 | 49,684 | 50,677 | 51,691 | 52,725 | 53,779 | 54,855 | 55,952 | 57,071 | 58,212 |
| Direct Operating Expenses | 5,007,684 | 5,127,350 | 5,249,996 | 5,375,697 | 5,504,533 | 5,636,585 | 5,771,938 | 5,910,676 | 6,052,888 | 6,198,664 | 6,348,097 | 6,501,282 | 6,658,318 | 6,819,305 |
| Additional Fund Balance available to Pay Debt Service NET REVENUES AVAILABLE TO PAY DEBT SERVICE |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 2,976,729 | 3,013,076 | 3,663,952 | 3,703,276 | 3,737,878 | 3,781,934 | 3,822,277 | 3,865,526 | 3,912,986 | 3,962,119 | 4,008,082 | 4,063,120 | 3,092,108 | 3,145,653 |
| Existing Authority Debt Service | 2,757,127 | 2,664,415 | 2,636,183 | 2,632,824 | 2,171,926 | 2,171,368 | 2,150,787 | 2,092,818 | 2,065,775 | 2,000,116 | 1,985,931 | 1,988,484 | 963,066 | 960,213 |
| Existing City Debt Service after FY 2014 Reversion | - | - | 1,018,373 | 1,022,134 | 1,018,728 | 1,014,225 | 828,647 | 826,288 | 634,941 | 635,155 | 635,280 | 635,542 | 635,071 | 635,901 |
| Debt Service for Lines to City ( $\$ 8.5$ million) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total Debt Service | 2,757,127 | 2,664,415 | 3,654,556 | 3,654,958 | 3,190,654 | 3,185,593 | 2,979,434 | 2,919,106 | 2,700,716 | 2,635,271 | 2,621,211 | 2,624,026 | 1,598,137 | 1,596,114 |
| NET CASH SURPLUS/(DEFICIT) | 219,602 | 348,661 | 9,396 | 48,317 | 547,224 | 596,340 | 842,842 | 946,420 | 1,212,270 | 1,326,848 | 1,386,872 | 1,439,094 | 1,493,971 | 1,549,540 |
| Debt Service Coverage (Minimum of 1.15x Required) | 1.08 | 1.13 | 1.00 | 1.01 | 1.17 | 1.19 | 1.28 | 1.32 | 1.45 | 1.50 | 1.53 | 1.55 | 1.93 | 1.97 |
| Projected Water Sale Rate | \$5.40 | \$5.51 | \$5.62 | \$5.73 | \$5.85 | \$5.96 | \$6.08 | \$6.20 | \$6.33 | \$6.45 | \$6.58 | \$6.71 | \$6.85 | \$6.99 |
| Projected Sewer Sale Rate | \$7.00 | \$7.14 | \$7.28 | \$7.43 | \$7.58 | \$7.73 | \$7.88 | \$8.04 | \$8.20 | \$8.37 | \$8.53 | \$8.70 | \$8.88 | \$9.06 |
| Minimum Water Rate to Achieve 1.00x coverage (Balanced Budget) | \$5.07 | \$4.98 | \$5.60 | \$5.66 | \$5.04 | \$5.10 | \$4.87 | \$4.86 | \$4.62 | \$4.61 | \$4.67 | \$4.75 | \$4.83 | \$4.91 |
| Minimum Water Rate to Achieve 1.15x coverage | \$5.70 | \$5.58 | \$6.42 | \$6.47 | \$5.74 | \$5.79 | \$5.51 | \$5.48 | \$5.19 | \$5.16 | \$5.21 | \$5.29 | \$5.15 | \$5.23 |


| Bedford County Public Service Authority <br> Appendix F- Pro-Forma with Continuing Water Purchases and No $\$ 8.5$ million Project |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 | 2036 | 2037 | 2038 | 2039 |
| Water Sales | \$6,587,577 | \$6,762,120 | \$6,941,690 | \$7,126,437 | \$7,316,514 | \$7,512,080 | \$7,713,299 | \$7,920,337 | \$8,133,369 | \$8,352,573 | \$8,578,133 | \$8,810,238 | \$9,049,083 | \$9,294,869 |
| Sewer Sales | 1,573,527 | 1,616,607 | 1,660,943 | 1,706,574 | 1,753,537 | 1,801,873 | 1,851,622 | 1,902,827 | 1,955,531 | 2,009,780 | 2,065,618 | 2,123,094 | 2,182,257 | 2,243,158 |
| Penalties | 55,418 | 56,526 | 57,657 | 58,810 | 59,986 | 61,186 | 62,410 | 63,658 | 64,931 | 66,230 | 67,554 | 68,905 | 70,284 | 71,689 |
| Facility Fees | - |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Administrative Fees | 76,068 | 77,589 | 79,141 | 80,724 | 82,338 | 83,985 | 85,665 | 87,378 | 89,126 | 90,908 | 92,726 | 94,581 | 96,473 | 98,402 |
| Interest | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 |
| Rental \& Service Charges | 143,441 | 146,309 | 149,236 | 152,220 | 155,265 | 158,370 | 161,537 | 164,768 | 168,063 | 171,425 | 174,853 | 178,350 | 181,917 | 185,556 |
| Contract Operations | 121,392 | 123,820 | 126,296 | 128,822 | 131,399 | 134,027 | 136,707 | 139,441 | 142,230 | 145,075 | 147,976 | 150,936 | 153,954 | 157,034 |
| Miscellaneous | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 |
| Bedford County CIP Contribution for Debt | 955,173 |  | - | - | - | - | - | . | - | - | . | . | - |  |
| Revenue from Operations | 9,518,596 | 8,788,972 | 9,020,964 | 9,259,588 | 9,505,039 | 9,757,521 | 10,017,240 | 10,284,410 | 10,559,251 | 10,841,990 | 11,132,862 | 11,432,105 | 11,739,968 | 12,056,707 |
| Other Non Operating Revenue Sources |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Net Surplus from City of Bedford Pro Forma after 2014 Reversion | 664,825 | 669,075 | 673,366 | 677,696 | 682,068 | 686,481 | 690,936 | 695,433 | 699,975 | 704,560 | 709,190 | 713,865 | 718,586 | 723,353 |
| DEQ Contributions for Capital Projects |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Line Dedications | - | - | - |  |  |  |  |  |  |  |  |  |  |  |
| Prepay Redemptions | $\checkmark$ | - | - | . | - | - | . | - |  |  | - | - |  |  |
| Miscellaneous | - | - | - | - |  |  |  |  |  |  |  |  | - |  |
| Other Revenue \& Support | 664,825 | 669,075 | 673,366 | 677,696 | 682,068 | 686,481 | 690,936 | 695,433 | 699,975 | 704,560 | 709,190 | 713,865 | 718,586 | 723,353 |
| total revenues | \$10,183,421 | \$9,458,048 | \$9,694,329 | \$9,937,284 | \$10,187,107 | \$10,444,001 | \$10,708,175 | \$10,979,843 | \$11,259,226 | \$11,546,550 | \$11,842,051 | \$12,145,969 | \$12,458,554 | \$12,780,060 |
| Operating Expenditures | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 | 2036 | 2037 | 2038 | 2039 |
| Personnel Costs | 2,493,560 | 2,543,431 | 2,594,300 | 2,646,186 | 2,699,110 | 2,753,092 | 2,808,154 | 2,864,317 | 2,921,603 | 2,980,035 | 3,039,636 | 3,100,429 | 3,162,437 | 3,225,686 |
| Administration | 325,257 | 331,762 | 338,397 | 345,165 | 352,068 | 359,110 | 366,292 | 373,618 | 381,090 | 388,712 | 396,486 | 404,416 | 412,504 | 420,754 |
| Customer Service and Billing Costs | 98,990 | 100,970 | 102,989 | 105,049 | 107,150 | 109,293 | 111,479 | 113,708 | 115,982 | 118,302 | 120,668 | 123,082 | 125,543 | 128,054 |
| Design \& Facilities Services | 36,625 | 37,357 | 38,104 | 38,867 | 39,644 | 40,437 | 41,245 | 42,070 | 42,912 | 43,770 | 44,645 | 45,538 | 46,449 | 47,378 |
| Vehicle \& Equipment Services | 153,652 | 156,725 | 159,860 | 163,057 | 166,318 | 169,644 | 173,037 | 176,498 | 180,028 | 183,628 | 187,301 | 191,047 | 194,868 | 198,765 |
| Increased Expenditures from New Facility |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 3,108,084 | 3,170,245 | 3,233,650 | 3,298,323 | 3,364,290 | 3,431,576 | 3,500,207 | 3,570,211 | 3,641,615 | 3,714,448 | 3,788,737 | 3,864,511 | 3,941,802 | 4,020,638 |
| Water Purchases from Lynchburg | 2,629,570 | 2,708,457 | 2,789,711 | 2,873,402 | 2,959,604 | 3,048,392 | 3,139,844 | 3,234,040 | 3,331,061 | 3,430,993 | 3,533,922 | 3,639,940 | 3,749,138 | 3,861,612 |
| Other Water Operations | 443,852 | 452,729 | 461,784 | 471,019 | 480,440 | 490,049 | 499,849 | 509,846 | 520,043 | 530,444 | 541,053 | 551,874 | 562,912 | 574,170 |
| Total Water Operations | 3,073,422 | 3,161,186 | 3,251,495 | 3,344,422 | 3,440,044 | 3,538,441 | 3,639,694 | 3,743,886 | 3,851,104 | 3,961,437 | 4,074,976 | 4,191,814 | 4,312,050 | 4,435,782 |
| Sewer Treatment Purchases from Lynchburg | 321,918 | 331,576 | 341,523 | 351,769 | 362,322 | 373,191 | 384,387 | 395,919 | 407,796 | 420,030 | 432,631 | 445,610 | 458,978 | 472,748 |
| Other Sewer Operations | 421,546 | 429,977 | 438,576 | 447,348 | 456,295 | 465,421 | 474,729 | 484,224 | 493,908 | 503,787 | 513,862 | 524,140 | 534,622 | 545,315 |
| Total Sewer Operations | 743,464 | 761,553 | 780,099 | 799,117 | 818,617 | 838,612 | 859,116 | 880,143 | 901,705 | 923,817 | 946,493 | 969,749 | 993,601 | 1,018,062 |
| Contract Operations | 59,377 | 60,564 | 61,775 | 63,011 | 64,271 | 65,557 | 66,868 | 68,205 | 69,569 | 70,960 | 72,380 | 73,827 | 75,304 | 76,810 |
| Direct Operating Expenses | 6,984,347 | 7,153,548 | 7,327,020 | 7,504,872 | 7,687,222 | 7,874,185 | 8,065,885 | 8,262,445 | 8,463,993 | 8,670,662 | 8,882,585 | 9,099,902 | 9,322,756 | 9,551,292 |
| Additional Fund Balance available to Pay Debt Service NET REVENUES AVAILABLE TO PAY DEBT SERVICE |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 3,199,074 | 2,304,499 | 2,367,310 | 2,432,411 | 2,499,885 | 2,569,816 | 2,642,291 | 2,717,398 | 2,795,232 | 2,875,889 | 2,959,466 | 3,046,067 | 3,135,798 | 3,228,768 |
| Existing Authority Debt Service | 955,173 | - | - | - | - | - | - | - | - | - | - | - | - |  |
| Existing City Debt Service after FY 2014 Reversion | 635,201 | - | - | - |  | - | - |  |  | - |  | - | - |  |
| Debt Service for Lines to City ( $\$ 8.5$ million) |  | . | . | - | - | . | . | - | - |  |  | . | - |  |
| Total Debt Service | 1,590,374 | - | - | - |  |  |  |  |  |  |  |  |  |  |
| NET CASH SURPLUS/(DEFICIT) | 1,608,701 | 2,304,499 | 2,367,310 | 2,432,411 | 2,499,885 | 2,569,816 | 2,642,291 | 2,717,398 | 2,795,232 | 2,875,889 | 2,959,466 | 3,046,067 | 3,135,798 | 3,228,768 |
| Debt Service Coverage (Minimum of 1.15x Required) | 2.01 | - | - | - | - | - | - | - | - | - | - | - | - |  |
| Projected Water Sale Rate | \$7.13 | \$7.27 | \$7.41 | \$7.56 | \$7.71 | \$7.87 | \$8.02 | \$8.18 | \$8.35 | \$8.52 | \$8.69 | \$8.86 | \$9.04 | \$9.22 |
| Projected Sewer Sale Rate | \$9.24 | \$9.42 | \$9.61 | \$9.80 | \$10.00 | \$10.20 | \$10.40 | \$10.61 | \$10.82 | \$11.04 | \$11.26 | \$11.48 | \$11.71 | \$11.95 |
| Minimum Water Rate to Achieve 1.00x coverage (Balanced | \$4.99 | \$4.25 | \$4.34 | \$4.43 | \$4.53 | \$4.63 | \$4.73 | \$4.83 | \$4.93 | \$5.03 | \$5.14 | \$5.24 | \$5.35 | \$5.46 |
| Minimum Water Rate to Achieve 1.15x coverage | \$5.31 | \$4.25 | \$4.34 | \$4.43 | \$4.53 | \$4.63 | \$4.73 | \$4.83 | \$4.93 | \$5.03 | \$5.14 | \$5.24 | \$5.35 | \$5.46 |


| Bedford County Public Service Authority <br> Appendix F- Pro-Forma with Continuing Water Purchases and No $\$ 8.5$ million Project |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2040 | 2041 | 2042 | 2043 | 2044 | 2045 | 2046 | 2047 | 2048 | 2049 | 2050 | 2051 | 2052 |
| Water Sales | \$9,547,802 | \$9,808,096 | \$10,075,971 | \$10,351,652 | \$10,635,373 | \$10,927,373 | \$11,227,900 | \$11,537,207 | \$11,855,558 | \$12,183,223 | \$12,520,479 | \$12,867,614 | \$13,224,922 |
| Sewer Sales | 2,305,847 | 2,370,379 | 2,436,809 | 2,505,193 | 2,575,591 | 2,648,062 | 2,722,668 | 2,799,474 | 2,878,546 | 2,959,950 | 3,043,758 | 3,130,041 | 3,218,873 |
| Penalties | 73,123 | 74,585 | 76,077 | 77,599 | 79,151 | 80,734 | 82,348 | 83,995 | 85,675 | 87,389 | 89,137 | 90,919 | 92,738 |
| Facility Fees |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Administrative Fees | 100,370 | 102,377 | 104,425 | 106,513 | 108,644 | 110,817 | 113,033 | 115,294 | 117,600 | 119,951 | 122,351 | 124,798 | 127,293 |
| Interest | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 |
| Rental \& Service Charges | 189,267 | 193,052 | 196,913 | 200,851 | 204,868 | 208,966 | 213,145 | 217,408 | 221,756 | 226,191 | 230,715 | 235,329 | 240,036 |
| Contract Operations | 160,174 | 163,378 | 166,645 | 169,978 | 173,378 | 176,845 | 180,382 | 183,990 | 187,670 | 191,423 | 195,251 | 199,157 | 203,140 |
| Miscellaneous | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 |
| Bedford County CIP Contribution for Debt |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Revenue from Operations | 12,382,583 | 12,717,868 | 13,062,840 | 13,417,787 | 13,783,004 | 14,158,796 | 14,545,477 | 14,943,369 | 15,352,805 | 15,774,128 | 16,207,691 | 16,653,857 | 17,113,002 |
| Other Non Operating Revenue Sources |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Net Surplus from City of Bedford Pro Forma after 2014 Reversion | 728,168 | 733,031 | 737,943 | 742,904 | 747,916 | 752,978 | 758,093 | 763,260 | 768,480 | 773,754 | 779,084 | 784,469 | 789,911 |
| DEQ Contributions for Capital Projects | - | - | - | - |  |  |  |  | - | - | - |  | - |
| Line Dedications | - | - | - | - | - | - | - | - | - | - |  |  | - |
| Prepay Redemptions | - | - | - | - |  |  |  |  |  |  |  |  |  |
| Miscellaneous | - |  |  |  |  |  |  |  |  |  |  |  |  |
| Other Revenue \& Support | 728,168 | 733,031 | 737,943 | 742,904 | 747,916 | 752,978 | 758,093 | 763,260 | 768,480 | 773,754 | 779,084 | 784,469 | 789,911 |
| total revenues | \$13,110,751 | \$13,450,899 | \$13,800,784 | \$14,160,692 | \$14,530,920 | \$14,911,775 | \$15,303,569 | \$15,706,628 | \$16,121,284 | \$16,547,882 | \$16,986,774 | \$17,438,326 | \$17,902,913 |
| Operating Expenditures | 2040 | 2041 | 2042 | 2043 | 2044 | 2045 | 2046 | 2047 | 2048 | 2049 | 2050 | 2051 | 2052 |
| Personnel Costs | 3,290,200 | 3,356,004 | 3,423,124 | 3,491,586 | 3,561,418 | 3,632,646 | 3,705,299 | 3,779,405 | 3,854,993 | 3,932,093 | 4,010,735 | 4,090,950 | 4,172,769 |
| Administration | 429,169 | 437,753 | 446,508 | 455,438 | 464,547 | 473,838 | 483,314 | 492,981 | 502,840 | 512,897 | 523,155 | 533,618 | 544,291 |
| Customer Service and Billing Costs | 130,615 | 133,227 | 135,892 | 138,610 | 141,382 | 144,210 | 147,094 | 150,036 | 153,036 | 156,097 | 159,219 | 162,403 | 165,652 |
| Design \& Facilities Services | 48,326 | 49,292 | 50,278 | 51,284 | 52,309 | 53,355 | 54,422 | 55,511 | 56,621 | 57,754 | 58,909 | 60,087 | 61,289 |
| Vehicle \& Equipment Services | 202,741 | 206,795 | 210,931 | 215,150 | 219,453 | 223,842 | 228,319 | 232,885 | 237,543 | 242,294 | 247,140 | 252,082 | 257,124 |
| Increased Expenditures from New Facility |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 4,101,050 | 4,183,071 | 4,266,733 | 4,352,068 | 4,439,109 | 4,527,891 | 4,618,449 | 4,710,818 | 4,805,034 | 4,901,135 | 4,999,158 | 5,099,141 | 5,201,124 |
| Water Purchases from Lynchburg | 3,977,461 | 4,096,785 | 4,219,688 | 4,346,279 | 4,476,667 | 4,610,967 | 4,749,296 | 4,891,775 | 5,038,528 | 5,189,684 | 5,345,375 | 5,505,736 | 5,670,908 |
| Other Water Operations | 585,653 | 597,366 | 609,314 | 621,500 | 633,930 | 646,609 | 659,541 | 672,732 | 686,186 | 699,910 | 713,908 | 728,186 | 742,750 |
| Total Water Operations | 4,563,114 | 4,694,151 | 4,829,002 | 4,967,779 | 5,110,597 | 5,257,576 | 5,408,837 | 5,564,507 | 5,724,714 | 5,889,594 | 6,059,283 | 6,233,922 | 6,413,658 |
| Sewer Treatment Purchases from Lynchburg | 486,930 | 501,538 | 516,584 | 532,082 | 548,044 | 564,485 | 581,420 | 598,863 | 616,828 | 635,333 | 654,393 | 674,025 | 694,246 |
| Other Sewer Operations | 556,221 | 567,345 | 578,692 | 590,266 | 602,072 | 614,113 | 626,395 | 638,923 | 651,702 | 664,736 | 678,030 | 691,591 | 705,423 |
| Total Sewer Operations | 1,043,151 | 1,068,883 | 1,095,276 | 1,122,348 | 1,150,116 | 1,178,598 | 1,207,815 | 1,237,786 | 1,268,530 | 1,300,069 | 1,332,424 | 1,365,616 | 1,399,669 |
| Contract Operations | 78,346 | 79,913 | 81,511 | 83,141 | 84,804 | 86,500 | 88,230 | 89,995 | 91,795 | 93,631 | 95,503 | 97,414 | 99,362 |
| Direct Operating Expenses | 9,785,662 | 10,026,019 | 10,272,522 | 10,525,336 | 10,784,626 | 11,050,565 | 11,323,331 | 11,603,105 | 11,890,074 | 12,184,429 | 12,486,367 | 12,796,092 | 13,113,812 |
| Additional Fund Balance available to Pay Debt Service NET REVENUES AVAILABLE TO PAY DEBT SERVICE |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 3,325,090 | 3,424,881 | 3,528,261 | 3,635,356 | 3,746,295 | 3,861,209 | 3,980,238 | 4,103,523 | 4,231,211 | 4,363,453 | 4,500,407 | 4,642,234 | 4,789,101 |
| Existing Authority Debt Service | - | - | - | - | - | - |  |  | - | - | - | - | - |
| Existing City Debt Service after FY 2014 Reversion | - | - | - | . | - | - |  | - | - | - | - | - | - |
| Debt Service for Lines to City (\$8.5 million) | - |  | - | - | - | - |  | - | - | - | - | - |  |
| Total Debt Service | - |  |  |  | - |  |  | - | - | - |  | - |  |
| NET CASH SURPLUS/(DEFICIT) | 3,325,090 | 3,424,881 | 3,528,261 | 3,635,356 | 3,746,295 | 3,861,209 | 3,980,238 | 4,103,523 | 4,231,211 | 4,363,453 | 4,500,407 | 4,642,234 | 4,789,101 |
| Debt Service Coverage (Minimum of 1.15x Required) | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Projected Water Sale Rate | 59.40 | \$9.59 | \$9.78 | \$9.98 | \$10.18 | \$10.38 | \$10.59 | \$10.80 | \$11.02 | \$11.24 | \$11.46 | \$11.69 | \$11.92 |
| Projected Sewer Sale Rate | \$12.19 | \$12.43 | \$12.68 | \$12.93 | \$13.19 | \$13.46 | \$13.72 | \$14.00 | \$14.28 | \$14.56 | \$14.86 | \$15.15 | \$15.46 |
| Minimum Water Rate to Achieve 1.00x coverage (Balanced Budget) | \$5.57 | \$5.68 | \$5.80 | \$5.91 | \$6.03 | \$6.15 | \$6.27 | \$6.39 | \$6.51 | \$6.64 | \$6.77 | \$6.90 | \$7.03 |
| Minimum Water Rate to Achieve 1.15x coverage | \$5.57 | \$5.68 | \$5.80 | \$5.91 | \$6.03 | \$6.15 | \$6.27 | \$6.39 | \$6.51 | \$6.64 | \$6.77 | \$6.90 | \$7.03 |


| Bedford County Public Service Authority <br> Appendix F- Pro-Forma with Continuing Water Purchases and No $\$ 8.5$ million Project |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2053 | 2054 | 2055 | 2056 | 2057 | 2058 | 2059 | 60 |
| Water Sales | \$13,592,708 | \$13,971,285 | \$14,360,976 | \$14,762,113 | \$15,175,039 | \$15,600,106 | \$16,037,679 | \$16,488,130 |
| Sewer Sales | 3,310,331 | 3,404,493 | 3,501,442 | 3,601,259 | 3,704,031 | 3,809,848 | 3,918,799 | 4,030,980 |
| Penalties | 94,592 | 96,484 | 98,414 | 100,382 | 102,390 | 104,438 | 106,526 | 108,657 |
| Facility Fees |  |  |  |  |  |  |  |  |
| Administrative Fees | 129,839 | 132,436 | 135,085 | 137,787 | 140,542 | 143,353 | 146,220 | 149,145 |
| Interest | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 |
| Rental \& Service Charges | 244,837 | 249,733 | 254,728 | 259,823 | 265,019 | 270,320 | 275,726 | 281,240 |
| Contract Operations | 207,202 | 211,346 | 215,573 | 219,885 | 224,283 | 228,768 | 233,344 | 238,010 |
| Miscellaneous | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 |
| Bedford County CIP Contribution for Debt |  |  |  |  |  |  |  |  |
| Revenue from Operations | 17,585,510 | 18,071,779 | 18,572,218 | 19,087,249 | 19,617,304 | 20,162,833 | 20,724,294 | 21,302,163 |
| Other Non Operating Revenue Sources |  |  |  |  |  |  |  |  |
| Net Surplus from City of Bedford Pro Forma after 2014 Reversion | 795,411 | 800,969 | 806,586 | 812,264 | 818,003 | 823,805 | 829,669 | 835,598 |
| DEQ Contributions for Capital Projects |  |  | . | . | - | - | - | - |
| Line Dedications |  |  |  |  |  |  |  |  |
| Prepay Redemptions |  |  | - | - | - |  |  |  |
| Miscellaneous |  |  |  |  |  |  |  |  |
| Other Revenue \& Support | 795,411 | 800,969 | 806,586 | 812,264 | 818,003 | 823,805 | 829,669 | 835,598 |
| TOTAL REVENUES | \$18,380,921 | \$18,872,748 | \$19,378,804 | \$19,899,512 | \$20,435,308 | \$20,986,637 | \$21,553,963 | \$22,137,761 |
| Operating Expenditures | 2053 | 2054 | 2055 | 2056 | 2057 | 2058 | 2059 | 2060 |
| Personnel Costs | 4,256,224 | 4,341,349 | 4,428,176 | 4,516,739 | 4,607,074 | 4,699,215 | 4,793,200 | 4,889,064 |
| Administration | 555,176 | 566,280 | 577,606 | 589,158 | 600,941 | 612,960 | 625,219 | 637,723 |
| Customer Service and Billing Costs | 168,965 | 172,344 | 175,791 | 179,307 | 182,893 | 186,551 | 190,282 | 194,087 |
| Design \& Facilities Services | 62,514 | 63,765 | 65,040 | 66,341 | 67,668 | 69,021 | 70,401 | 71,809 |
| Vehicle \& Equipment Services | 262,266 | 267,512 | 272,862 | 278,319 | 283,886 | 289,563 | 295,355 | 301,262 |
| Increased Expenditures from New Facility |  |  |  |  |  |  |  |  |
|  | 5,305,146 | 5,411,249 | 5,519,474 | 5,629,863 | 5,742,461 | 5,857,310 | 5,974,456 | 6,093,945 |
| Water Purchases from Lynchburg | 5,841,035 | 6,016,266 | 6,196,754 | 6,382,657 | 6,574,137 | 6,771,361 | 6,974,501 | 7,183,737 |
| Other Water Operations | 757,605 | 772,757 | 788,212 | 803,977 | 820,056 | 836,457 | 853,186 | 870,250 |
| Total Water Operations | 6,598,640 | 6,789,023 | 6,984,967 | 7,186,633 | 7,394,193 | 7,607,818 | 7,827,688 | 8,053,987 |
| Sewer Treatment Purchases from Lynchburg | 715,073 | 736,525 | 758,621 | 781,380 | 804,821 | 828,966 | 853,835 | 879,450 |
| Other Sewer Operations | 719,531 | 733,922 | 748,600 | 763,572 | 778,844 | 794,421 | 810,309 | 826,515 |
| Total Sewer Operations | 1,434,604 | 1,470,447 | 1,507,221 | 1,544,952 | 1,583,665 | 1,623,386 | 1,664,144 | 1,705,965 |
| Contract Operations | 101,349 | 103,376 | 105,444 | 107,552 | 109,703 | 111,898 | 114,135 | 116,418 |
| Direct Operating Expenses | 13,439,740 | 13,774,096 | 14,117,105 | 14,469,001 | 14,830,022 | 15,200,412 | 15,580,423 | 15,970,315 |
| Additional Fund Balance available to Pay Debt Service NET REVENUES AVAILABLE TO PAY DEBT SERVICE |  |  |  |  |  |  |  |  |
|  | 4,941,181 | 5,098,652 | 5,261,699 | 5,430,511 | 5,605,286 | 5,786,226 | 5,973,540 | 6,167,446 |
| Existing Authority Debt Service |  |  |  | - | - | - | - | - |
| Existing City Debt Service after FY 2014 Reversion |  |  | - | - | - |  |  | - |
| Debt Service for Lines to City ( $\$ 8.5$ million)Total Debt Service |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| NET CASH SURPLUS/(DEFICIT) | 4,941,181 | 5,098,652 | 5,261,699 | 5,430,511 | 5,605,286 | 5,786,226 | 5,973,540 | 6,167,446 |
| Debt Service Coverage (Minimum of 1.15x Required) | - | - | - | - | - | - | - | - |
| Projected Water Sale Rate | \$12.16 | \$12.41 | \$12.65 | \$12.91 | \$13.16 | \$13.43 | \$13.70 | \$13.97 |
| Projected Sewer Sale Rate | \$15.77 | \$16.08 | \$16.40 | \$16.73 | \$17.06 | \$17.41 | \$17.75 | \$18.11 |
| Minimum Water Rate to Achieve 1.00x coverage (Balanced Budget) | \$7.16 | \$7.29 | \$7.43 | \$7.57 | \$7.71 | \$7.85 | \$8.00 | \$8.15 |
| Minimum Water Rate to Achieve 1.15x coverage | \$7.16 | \$7.29 | \$7.43 | \$7.57 | \$7.71 | \$7.85 | \$8.00 | \$8.15 |

Appendix G
Bedford City Water \& Sewer Fund Projected Revenue and Expenditures

City of Bedford Water \& Sewer Enterprise Fund
Appendix G - Projected Revenue and Expenditures

## Revenue Sources

Interest on Investments
Revenue Sharing Agreement
Sale of Water
Sewer Treatment Charges
Water \& Sewer Connection Charges
Water \& Sewer Facility Fees
Wastewater Discharge Permits
Penalties
Miscellaneous
Bedford City CIP Contributions
Revenue from Operations

## TOTAL REVENUES

## Operating Expenditures

General Administration
Supply and Purification
Transmission \& Distribution
Wastewater Treatment
Maintenance - Sewer Lines
Pretreatment- Wastewater
Transfers to Other Funds
Direct Operating Expenses

## Debt Service

Existing DS
New Debt Service
Total Debt Service
TOTAL CASH EXPENDITURES
NET CASH SURPLUS/(DEFICIT)
NET CASH SURPLUS/(DEFICIT) PLUS DEBT SERVICE

| 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| \$3,000 | \$3,060 | \$3,121 | \$3,184 | \$3,247 | \$3,312 | \$3,378 | \$3,446 | \$3,515 | \$3,585 | \$3,657 |
| 405,000 | 413,100 | - | - | - | - | - |  | - | - | - |
| 1,285,000 | 1,291,425 | 1,297,882 | 1,304,372 | 1,310,893 | 1,317,448 | 1,324,035 | 1,330,655 | 1,337,309 | 1,343,995 | 1,350,715 |
| 1,884,300 | 1,893,722 | 1,903,190 | 1,912,706 | 1,922,270 | 1,931,881 | 1,941,540 | 1,951,248 | 1,961,004 | 1,970,809 | 1,980,663 |
| 11,600 | 11,832 | 12,069 | 12,310 | 12,556 | 12,807 | 13,063 | 13,325 | 13,591 | 13,863 | 14,140 |
| 19,050 | 19,431 | - | - | - | - | - | - | - | - | - |
| 21,900 | 22,338 | 22,785 | 23,240 | 23,705 | 24,179 | 24,663 | 25,156 | 25,659 | 26,173 | 26,696 |
| 10,100 | 10,302 | 10,508 | 10,718 | 10,933 | 11,151 | 11,374 | 11,602 | 11,834 | 12,070 | 12,312 |
| 200 | 204 | 208 | 212 | 216 | 221 | 225 | 230 | 234 | 239 | 244 |
| - | - | - | - | - | - | - | - | - | - | - |
| 3,640,150 | 3,665,414 | 3,249,763 | 3,266,742 | 3,283,821 | 3,301,000 | 3,318,280 | 3,335,662 | 3,353,146 | 3,370,735 | 3,388,427 |
| 3,640,150 | 3,665,414 | 3,249,763 | 3,266,742 | 3,283,821 | 3,301,000 | 3,318,280 | 3,335,662 | 3,353,146 | 3,370,735 | 3,388,427 |
| 297,850 | 299,339 | 300,836 | 302,340 | 303,852 | 305,371 | 306,898 | 308,432 | 309,975 | 311,524 | 313,082 |
| 566,500 | 569,333 | 572,179 | 575,040 | 577,915 | 580,805 | 583,709 | 586,627 | 589,561 | 592,508 | 595,471 |
| 182,850 | 183,764 | 184,683 | 185,606 | 186,535 | 187,467 | 188,405 | 189,347 | 190,293 | 191,245 | 192,201 |
| 1,154,460 | 1,160,232 | 1,166,033 | 1,171,864 | 1,177,723 | 1,183,612 | 1,189,530 | 1,195,477 | 1,201,455 | 1,207,462 | 1,213,499 |
| 185,250 | 186,176 | 187,107 | 188,043 | 188,983 | 189,928 | 190,877 | 191,832 | 192,791 | 193,755 | 194,724 |
| 81,490 | 81,897 | 82,307 | 82,718 | 83,132 | 83,548 | 83,965 | 84,385 | 84,807 | 85,231 | 85,657 |
| 138,500 | 139,193 | 139,888 | 140,588 | 141,291 | 141,997 | 142,707 | 143,421 | 144,138 | 144,859 | 145,583 |
| 2,606,900 | 2,619,935 | 2,633,034 | 2,646,199 | 2,659,430 | 2,672,727 | 2,686,091 | 2,699,522 | 2,713,019 | 2,726,584 | 2,740,217 |
| 1,030,142 | 1,024,252 | 1,018,373 | 1,022,134 | 1,018,728 | 1,014,225 | 828,647 | 826,288 | 634,941 | 635,155 | 635,280 |
| - | - | - | - | - | - | - | - | - | - | - |
| 1,030,142 | 1,024,252 | 1,018,373 | 1,022,134 | 1,018,728 | 1,014,225 | 828,647 | 826,288 | 634,941 | 635,155 | 635,280 |
| 3,637,042 | 3,644,187 | 3,651,407 | 3,668,333 | 3,678,158 | 3,686,952 | 3,514,738 | 3,525,810 | 3,347,960 | 3,361,739 | 3,375,497 |
| 3,108 | 21,227 | $(401,644)$ | $(401,591)$ | $(394,338)$ | $(385,953)$ | $(196,458)$ | $(190,148)$ | 5,186 | 8,995 | 12,930 |
| 1,033,250 | 1,045,479 | 616,729 | 620,543 | 624,390 | 628,272 | 632,189 | 636,140 | 640,127 | 644,150 | 648,210 |

City of Bedford Water \& Sewer Enterprise Fund
Appendix G - Projected Revenue and Expenditures

## Revenue Sources

Interest on Investments
Revenue Sharing Agreement
Sale of Water
Sewer Treatment Charges
Water \& Sewer Connection Charges
Water \& Sewer Facility Fees
Wastewater Discharge Permits
Penalties
Miscellaneous
Bedford City CIP Contributions
Revenue from Operations

## TOTAL REVENUES

## Operating Expenditures

General Administration
Supply and Purification
Transmission \& Distribution
Wastewater Treatment
Maintenance - Sewer Lines
Pretreatment- Wastewater
Transfers to Other Funds
Direct Operating Expenses

## Debt Service

Existing DS
New Debt Service
Total Debt Service

TOTAL CASH EXPENDITURES
NET CASH SURPLUS/(DEFICIT)
NET CASH SURPLUS/(DEFICIT) PLUS DEBT SERVICE

|  |  |  |  |  |  |  |  |  |  |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  |  |  |  |  |  |  |  |  |  |

City of Bedford Water \& Sewer Enterprise Fund
Appendix G - Projected Revenue and Expenditures

## Revenue Sources

Interest on Investments
Revenue Sharing Agreement
Sale of Water
Sewer Treatment Charges
Water \& Sewer Connection Charges
Water \& Sewer Facility Fees
Wastewater Discharge Permits
Penalties
Miscellaneous
Bedford City CIP Contributions
Revenue from Operations

## TOTAL REVENUES

Operating Expenditures
General Administration
Supply and Purification
Transmission \& Distribution
Wastewater Treatment
Maintenance - Sewer Lines
Pretreatment- Wastewater
Transfers to Other Funds
Direct Operating Expenses

## Debt Service

Existing DS
New Debt Service
Total Debt Service

TOTAL CASH EXPENDITURES
NET CASH SURPLUS/(DEFICIT)
NET CASH SURPLUS/(DEFICIT) PLUS DEBT SERVICE

|  |  |  |  |  |  |  |  |  |  |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  |  |  |  |  |  |  |  |  |  |

City of Bedford Water \& Sewer Enterprise Fund
Appendix G - Projected Revenue and Expenditures

## Revenue Sources

Interest on Investments
Revenue Sharing Agreement
Sale of Water
Sewer Treatment Charges
Water \& Sewer Connection Charges
Water \& Sewer Facility Fees
Wastewater Discharge Permits
Penalties
Miscellaneous
Bedford City CIP Contributions
Revenue from Operations

## TOTAL REVENUES

Operating Expenditures
General Administration
Supply and Purification
Transmission \& Distribution
Wastewater Treatment
Maintenance - Sewer Lines
Pretreatment- Wastewater
Transfers to Other Funds
Direct Operating Expenses

## Debt Service

Existing DS
New Debt Service
Total Debt Service
TOTAL CASH EXPENDITURES
NET CASH SURPLUS/(DEFICIT)
NET CASH SURPLUS/(DEFICIT) PLUS DEBT SERVICE

| 2043 | 2044 | 2045 | 2046 | 2047 | 2048 | 2049 | 2050 | 2051 | 2052 | 2053 | 2054 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| \$5,543 | \$5,654 | \$5,767 | \$5,882 | \$6,000 | \$6,120 | \$6,242 | \$6,367 | \$6,494 | \$6,624 | \$6,757 | \$6,892 |
| - | - | - | - | - | - | - | - | - | - | - | - |
| 1,499,861 | 1,507,360 | 1,514,897 | 1,522,472 | 1,530,084 | 1,537,734 | 1,545,423 | 1,553,150 | 1,560,916 | 1,568,721 | 1,576,564 | 1,584,447 |
| 2,199,368 | 2,210,365 | 2,221,417 | 2,232,524 | 2,243,687 | 2,254,905 | 2,266,180 | 2,277,511 | 2,288,898 | 2,300,343 | 2,311,844 | 2,323,404 |
| 21,432 | 21,861 | 22,298 | 22,744 | 23,199 | 23,663 | 24,136 | 24,619 | 25,111 | 25,613 | 26,126 | 26,648 |
| - | - | - | - | - | - | - | - | - | - | - | - |
| 40,462 | 41,271 | 42,097 | 42,939 | 43,798 | 44,674 | 45,567 | 46,478 | 47,408 | 48,356 | 49,323 | 50,310 |
| 18,661 | 19,034 | 19,415 | 19,803 | 20,199 | 20,603 | 21,015 | 21,435 | 21,864 | 22,301 | 22,747 | 23,202 |
| 370 | 377 | 384 | 392 | 400 | 408 | 416 | 424 | 433 | 442 | 450 | 459 |
| - | - | - | - | - | - | - | - | - | - | - | - |


| $3,785,697$ | $3,805,922$ | $3,826,275$ | $3,846,755$ | $3,867,366$ | $3,888,106$ | $3,908,979$ | $3,929,984$ | $3,951,124$ | $3,972,399$ | $3,993,811$ | $4,015,362$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |


|  |  |  |  |  |  |  |  |  |  |  |  |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 347,653 | 349,391 | 351,138 | 352,894 | 354,658 | 356,431 | 358,213 | 360,005 | 361,805 | 363,614 | 365,432 | 367,259 |
| 661,223 | 664,529 | 667,852 | 671,191 | 674,547 | 677,920 | 681,309 | 684,716 | 688,139 | 691,580 | 695,038 | 698,513 |
| 213,424 | 214,491 | 215,563 | 216,641 | 217,724 | 218,813 | 219,907 | 221,007 | 222,112 | 223,222 | 224,338 | 225,460 |
| $1,347,494$ | $1,354,231$ | $1,361,003$ | $1,367,808$ | $1,374,647$ | $1,381,520$ | $1,388,427$ | $1,395,370$ | $1,402,346$ | $1,409,358$ | $1,416,405$ | $1,423,487$ |
| 216,225 | 217,306 | 218,393 | 219,485 | 220,582 | 221,685 | 222,793 | 223,907 | 225,027 | 226,152 | 227,283 | 228,419 |
| 95,116 | 95,591 | 96,069 | 96,550 | 97,032 | 97,517 | 98,005 | 98,495 | 98,988 | 99,483 | 99,980 | 100,480 |
| 161,658 | 162,466 | 163,279 | 164,095 | 164,916 | 165,740 | 166,569 | 167,402 | 168,239 | 169,080 | 169,925 | 170,775 |
| $3,042,792$ | $3,058,006$ | $3,073,296$ | $3,088,663$ | $3,104,106$ | $3,119,626$ | $3,135,225$ | $3,150,901$ | $3,166,655$ | $3,182,488$ | $3,198,401$ | $3,214,393$ |


| $3,042,792$ | $3,058,006$ | $3,073,296$ | $3,088,663$ | $3,104,106$ | $3,119,626$ | $3,135,225$ | $3,150,901$ | $3,166,655$ | $3,182,488$ | $3,198,401$ |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| $\mathbf{7 4 2 , 9 0 4}$ | $\mathbf{7 4 7 , 9 1 6}$ | $\mathbf{7 5 2 , 9 7 8}$ | $\mathbf{7 5 8 , 0 9 3}$ | $\mathbf{7 6 3 , 2 6 0}$ | $\mathbf{7 6 8 , 4 8 0}$ | $\mathbf{7 7 3 , 7 5 4}$ | $\mathbf{7 7 9 , 0 8 4}$ | $\mathbf{7 8 4 , 4 6 9}$ | $\mathbf{7 8 9 , 9 1 1}$ | $\mathbf{7 9 5 , 4 1 1}$ |
| $\mathbf{7 4 2 , 9 0 4}$ | $\mathbf{7 4 7 , 9 1 6}$ | $\mathbf{7 5 2 , 9 7 8}$ | $\mathbf{7 5 8 , 0 9 3}$ | $\mathbf{7 6 3 , 2 6 0}$ | $\mathbf{7 6 8 , 4 8 0}$ | $\mathbf{7 7 3 , 7 5 4}$ | $\mathbf{7 7 9 , 0 8 4}$ | $\mathbf{7 8 4 , 4 6 9}$ | $\mathbf{7 8 9 , 9 1 1}$ | $\mathbf{7 9 5 , 4 1 1}$ |

City of Bedford Water \& Sewer Enterprise Fund
Appendix G - Projected Revenue and Expenditures

## Revenue Sources

Interest on Investments
Revenue Sharing Agreement
Sale of Water
Sewer Treatment Charges
Water \& Sewer Connection Charges
Water \& Sewer Facility Fees
Wastewater Discharge Permits
Penalties
Miscellaneous
Bedford City CIP Contributions
Revenue from Operations

## TOTAL REVENUES

## Operating Expenditures

General Administration
Supply and Purification
Transmission \& Distribution
Wastewater Treatment
Maintenance - Sewer Lines
Pretreatment- Wastewater
Transfers to Other Funds
Direct Operating Expenses

## Debt Service

Existing DS
New Debt Service
Total Debt Service
TOTAL CASH EXPENDITURES
NET CASH SURPLUS/(DEFICIT)
NET CASH SURPLUS/(DEFICIT) PLUS DEBT SERVICE

| 2055 | 2056 | 2057 | 2058 | 2059 | 2060 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| \$7,030 | \$7,170 | \$7,314 | \$7,460 | \$7,609 | \$7,761 |
| - | - | - | - | - | - |
| 1,592,369 | 1,600,331 | 1,608,333 | 1,616,374 | 1,624,456 | 1,632,579 |
| 2,335,021 | 2,346,696 | 2,358,429 | 2,370,221 | 2,382,072 | 2,393,983 |
| 27,181 | 27,725 | 28,279 | 28,845 | 29,422 | 30,010 |
| - | - | - | - |  | - |
| 51,316 | 52,342 | 53,389 | 54,457 | 55,546 | 56,657 |
| 23,666 | 24,140 | 24,622 | 25,115 | 25,617 | 26,129 |
| 469 | 478 | 488 | 497 | 507 | 517 |
| - | - | - | - | - | - |
| 4,037,051 | 4,058,881 | 4,080,853 | 4,102,969 | 4,125,230 | 4,147,636 |
| 4,037,051 | 4,058,881 | 4,080,853 | 4,102,969 | 4,125,230 | 4,147,636 |
| 369,095 | 370,941 | 372,795 | 374,659 | 376,533 | 378,415 |
| 702,006 | 705,516 | 709,043 | 712,588 | 716,151 | 719,732 |
| 226,587 | 227,720 | 228,859 | 230,003 | 231,153 | 232,309 |
| 1,430,604 | 1,437,757 | 1,444,946 | 1,452,171 | 1,459,432 | 1,466,729 |
| 229,561 | 230,709 | 231,863 | 233,022 | 234,187 | 235,358 |
| 100,982 | 101,487 | 101,995 | 102,505 | 103,017 | 103,532 |
| 171,629 | 172,487 | 173,349 | 174,216 | 175,087 | 175,963 |
| 3,230,465 | 3,246,617 | 3,262,850 | 3,279,165 | 3,295,560 | 3,312,038 |
| - | - | - | - | - | - |
| - | - | - | - | - | - |
| - | - | - | - | - | - |
| 3,230,465 | 3,246,617 | 3,262,850 | 3,279,165 | 3,295,560 | 3,312,038 |
| 806,586 | 812,264 | 818,003 | 823,805 | 829,669 | 835,598 |
| 806,586 | 812,264 | 818,003 | 823,805 | 829,669 | 835,598 |

Appendix H
Existing Debt Service Tables

Bedford County Public Service Authority
Appendix H - Summary of Outstanding PSA Debt

| Fiscal Year | Series 2002A |  |  | Series 2002B-1993 Refinance |  |  | Lynchburg Sewer |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Principal | Interest | Trustee Fee | Principal | Interest | Trustee Fee | Principal | Interest | Trustee Fee |
| 2011 | \$580,000.00 | \$24,505.50 | \$0.00 | \$365,000.00 | \$82,475.00 | \$2,265.63 | \$181,562.35 | \$33,799.71 | \$0.00 |
| 2012 |  |  |  | \$380,000.00 | \$65,750.00 | \$1,800.00 | \$182,426.98 | \$30,418.30 | \$0.00 |
| 2013 |  |  |  | \$400,000.00 | \$48,150.00 | \$1,312.50 | \$183,321.44 | \$27,007.09 | \$0.00 |
| 2014 |  |  |  | \$415,000.00 | \$27,775.00 | \$803.13 | \$164,866.75 | \$23,565.00 | \$0.00 |
| 2015 |  |  |  | \$435,000.00 | \$8,700.00 | \$271.88 | \$165,823.98 | \$20,091.03 | \$0.00 |
| 2016 |  |  |  |  |  |  | \$161,511.23 | \$16,584.00 | \$0.00 |
| 2017 |  |  |  |  |  |  | \$162,535.65 | \$13,217.82 | \$0.00 |
| 2018 |  |  |  |  |  |  | \$148,839.28 | \$9,816.32 | \$0.00 |
| 2019 |  |  |  |  |  |  | \$96,495.96 | \$6,378.25 | \$0.00 |
| 2020 |  |  |  |  |  |  | \$72,574.72 | \$2,902.34 | \$0.00 |
| 2021 |  |  |  |  |  |  | \$9,276.88 | \$244.22 | \$0.00 |
| 2022 |  |  |  |  |  |  |  |  |  |
| 2023 |  |  |  |  |  |  |  |  |  |
| 2024 |  |  |  |  |  |  |  |  |  |
| 2025 |  |  |  |  |  |  |  |  |  |
| 2026 |  |  |  |  |  |  |  |  |  |
| 2027 |  |  |  |  |  |  |  |  |  |
| 2028 |  |  |  |  |  |  |  |  |  |
| 2029 |  |  |  |  |  |  |  |  |  |
| 2030 |  |  |  |  |  |  |  |  |  |
| 2031 |  |  |  |  |  |  |  |  |  |
| 2032 |  |  |  |  |  |  |  |  |  |
| 2033 |  |  |  |  |  |  |  |  |  |
|  | \$580,000.00 | \$24,505.50 | \$0.00 | \$1,995,000.00 | \$232,850.00 | \$6,453.14 | \$1,529,235.22 | \$184,024.08 | \$0.00 |

Bedford County Public Service Authority
Appendix H - Summary of Outstanding PSA Debt

| Fiscal | 2004 Building Loan |  |  | VRA Series 2005 |  |  | VRA Series 2009B |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Principal | Interest | Trustee Fee | Principal | Interest | Trustee Fee | Principal | Interest | Trustee Fee |
| 2011 | \$93,346.72 | \$6,899.97 | \$0.00 | \$500,000.00 | \$465,407.50 | \$450.00 |  | \$430,881.26 | \$328.13 |
| 2012 | \$96,735.20 | \$3,511.49 | \$0.00 | \$520,000.00 | \$447,406.88 | \$450.00 | \$610,000.00 | \$418,300.01 | \$328.13 |
| 2013 |  |  | \$0.00 | \$540,000.00 | \$428,680.01 | \$450.00 | \$645,000.00 | \$390,165.63 | \$328.13 |
| 2014 |  |  | \$0.00 | \$560,000.00 | \$408,901.26 | \$450.00 | \$670,000.00 | \$364,493.75 | \$328.13 |
| 2015 |  |  | \$0.00 | \$585,000.00 | \$384,543.76 | \$450.00 | \$695,000.00 | \$337,615.63 | \$328.13 |
| 2016 |  |  | \$0.00 | \$610,000.00 | \$355,971.26 | \$450.00 | \$720,000.00 | \$307,081.26 | \$328.13 |
| 2017 |  |  | \$0.00 | \$640,000.00 | \$325,877.51 | \$450.00 | \$755,000.00 | \$273,959.38 | \$328.13 |
| 2018 |  |  | \$0.00 | \$670,000.00 | \$294,635.01 | \$450.00 | \$790,000.00 | \$236,718.75 | \$328.13 |
| 2019 |  |  | \$0.00 | \$700,000.00 | \$262,356.26 | \$450.00 | \$825,000.00 | \$201,809.38 | \$328.13 |
| 2020 |  |  | \$0.00 | \$735,000.00 | \$230,488.76 | \$450.00 | \$860,000.00 | \$164,031.26 | \$328.13 |
| 2021 |  |  | \$0.00 | \$765,000.00 | \$199,738.76 | \$450.00 | \$905,000.00 | \$120,078.13 | \$328.13 |
| 2022 |  |  |  | \$795,000.00 | \$167,608.76 | \$450.00 | \$950,000.00 | \$72,543.75 | \$328.13 |
| 2023 |  |  |  | \$830,000.00 | \$133,606.26 | \$450.00 | \$1,000,000.00 | \$24,100.00 | \$328.13 |
| 2024 |  |  |  | \$865,000.00 | \$97,615.63 | \$450.00 |  |  |  |
| 2025 |  |  |  | \$900,000.00 | \$59,762.50 | \$450.00 |  |  |  |
| 2026 |  |  |  | \$935,000.00 | \$20,172.50 | \$0.00 |  |  |  |
| 2027 |  |  |  |  |  |  |  |  |  |
| 2028 |  |  |  |  |  |  |  |  |  |
| 2029 |  |  |  |  |  |  |  |  |  |
| 2030 |  |  |  |  |  |  |  |  |  |
| 2031 |  |  |  |  |  |  |  |  |  |
| 2032 |  |  |  |  |  |  |  |  |  |
| 2033 |  |  |  |  |  |  |  |  |  |
|  | \$190,081.92 | \$10,411.46 | \$0.00 | \$11,150,000.00 | \$4,282,772.62 | \$6,750.00 | \$9,425,000.00 | \$3,341,778.19 | \$4,265.69 |

Bedford County Public Service Authority
Appendix H - Summary of Outstanding PSA Debt

| Outstanding <br> Balance | Debt <br> Remaining |
| :---: | :---: | :---: |
| $\$ 24,869,317.14$ | $100 \%$ |
| $\$ 23,149,408.07$ | $93 \%$ |
| $\$ 21,360,245.89$ | $86 \%$ |
| $\$ 19,591,924.45$ | $79 \%$ |
| $\$ 17,782,057.70$ | $72 \%$ |
| $\$ 15,901,233.72$ | $64 \%$ |
| $\$ 14,409,722.49$ | $58 \%$ |
| $\$ 12,852,186.84$ | $52 \%$ |
| $\$ 11,243,347.56$ | $45 \%$ |
| $\$ 9,621,851.60$ | $39 \%$ |
| $\$ 7,954,276.88$ | $32 \%$ |
| $\$ 6,275,000.00$ | $25 \%$ |
| $\$ 4,530,000.00$ | $18 \%$ |
| $\$ 2,700,000.00$ | $11 \%$ |
| $\$ 1,835,000.00$ | $7 \%$ |
| $\$ 935,000.00$ | $4 \%$ |
| $\$ 0.00$ | $0 \%$ |
| $\$ 0.00$ | $0 \%$ |
| $\$ 0.00$ | $0 \%$ |
| $\$ 0.00$ | $0 \%$ |
| $\$ 0.00$ | $0 \%$ |
| $\$ 0.00$ | $0 \%$ |
| $\$ 0.00$ | $0 \%$ |
| $\$ 0.00$ | $0 \%$ |

City of Bedford Water \& Sewer Enterprise Fund Debt
Appendix H- Summary of Outstanding City W\&S Enterprise Fund Debt

| Fiscal | 1991 VRA WWTP |  |  | 1998 Enterprise GO Issue WWTP Upgrade |  |  | 2001A Enterprise GO Issue VRA W\&S |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Principal | Interest | Total DS |  |  |  | Principal | Interest | Total DS |
| 2012 | \$101,315.29 | \$0.00 | \$101,315.29 | \$276,973.00 | \$63,002.00 | \$339,975.00 | \$90,000.00 | \$0.00 | \$90,000.00 |
| 2013 |  |  |  | \$283,940.00 | \$56,034.00 | \$339,974.00 | \$90,000.00 | \$0.00 | \$90,000.00 |
| 2014 |  |  |  | \$291,083.00 | \$48,892.00 | \$339,975.00 | \$90,000.00 | \$0.00 | \$90,000.00 |
| 2015 |  |  |  | \$298,406.00 | \$41,569.00 | \$339,975.00 | \$90,000.00 | \$0.00 | \$90,000.00 |
| 2016 |  |  |  | \$305,912.00 | \$34,062.00 | \$339,974.00 | \$90,000.00 | \$0.00 | \$90,000.00 |
| 2017 |  |  |  | \$313,608.00 | \$26,367.00 | \$339,975.00 | \$90,000.00 | \$0.00 | \$90,000.00 |
| 2018 |  |  |  | \$321,497.00 | \$18,477.00 | \$339,974.00 | \$90,000.00 | \$0.00 | \$90,000.00 |
| 2019 |  |  |  | \$329,585.00 | \$10,390.00 | \$339,975.00 | \$90,000.00 | \$0.00 | \$90,000.00 |
| 2020 |  |  |  | \$167,889.00 | \$2,099.00 | \$169,988.00 | \$90,000.00 | \$0.00 | \$90,000.00 |
| 2021 |  |  |  |  |  |  | \$90,000.00 | \$0.00 | \$90,000.00 |
| 2022 |  |  |  |  |  |  | \$90,000.00 | \$0.00 | \$90,000.00 |
| 2023 |  |  |  |  |  |  |  |  |  |
| 2024 |  |  |  |  |  |  |  |  |  |
| 2025 |  |  |  |  |  |  |  |  |  |
| 2026 |  |  |  |  |  |  |  |  |  |
| 2027 |  |  |  |  |  |  |  |  |  |
| 2028 |  |  |  |  |  |  |  |  |  |
| 2029 |  |  |  |  |  |  |  |  |  |
| 2030 |  |  |  |  |  |  |  |  |  |
| TOTAL | \$101,315.29 | \$0.00 | \$101,315.29 | \$2,588,893.00 | \$300,892.00 | \$2,889,785.00 | \$990,000.00 | \$0.00 | \$990,000.00 |

City of Bedford Water \& Sewer Enterprise Fund Debt
Appendix H-Summary of Outstanding City W\&S Enterprise Fund Debt

| Fiscal | 2002A Enterprise GO Issue VRA W\&S |  |  | 2008 Enterprise GO Issue W\&S |  |  | 2010 Enterprise GO Issue W\&S Refunding |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Principal | Interest | Total DS | Principal | Interest | Total DS | Principal | Interest | Total DS |
| 2012 | \$143,315.00 | \$0.00 | \$143,315.00 | \$58,574.00 | \$31,175.00 | \$89,749.00 | \$155,000.00 | \$27,720.00 | \$182,720.00 |
| 2013 | \$143,315.00 | \$0.00 | \$143,315.00 | \$60,695.00 | \$29,054.00 | \$89,749.00 | \$160,000.00 | \$23,805.00 | \$183,805.00 |
| 2014 | \$143,315.00 | \$0.00 | \$143,315.00 | \$62,892.00 | \$26,857.00 | \$89,749.00 | \$160,000.00 | \$20,285.00 | \$180,285.00 |
| 2015 | \$143,315.00 | \$0.00 | \$143,315.00 | \$65,169.00 | \$24,581.00 | \$89,750.00 | \$170,000.00 | \$16,405.00 | \$186,405.00 |
| 2016 | \$143,315.00 | \$0.00 | \$143,315.00 | \$67,528.00 | \$22,222.00 | \$89,750.00 | \$175,000.00 | \$10,360.00 | \$185,360.00 |
| 2017 | \$143,315.00 | \$0.00 | \$143,315.00 | \$69,972.00 | \$19,777.00 | \$89,749.00 | \$180,000.00 | \$3,217.00 | \$183,217.00 |
| 2018 | \$143,315.00 | \$0.00 | \$143,315.00 | \$72,505.00 | \$17,244.00 | \$89,749.00 |  |  |  |
| 2019 | \$143,315.00 | \$0.00 | \$143,315.00 | \$75,130.00 | \$14,619.00 | \$89,749.00 |  |  |  |
| 2020 | \$143,315.00 | \$0.00 | \$143,315.00 | \$77,849.00 | \$11,900.00 | \$89,749.00 |  |  |  |
| 2021 | \$143,315.00 | \$0.00 | \$143,315.00 | \$80,668.00 | \$9,082.00 | \$89,750.00 |  |  |  |
| 2022 | \$143,315.00 | \$0.00 | \$143,315.00 | \$83,588.00 | \$6,161.00 | \$89,749.00 |  |  |  |
| 2023 | \$71,657.00 | \$0.00 | \$71,657.00 | \$86,614.00 | \$3,135.00 | \$89,749.00 |  |  |  |
| 2024 |  |  |  |  |  |  |  |  |  |
| 2025 |  |  |  |  |  |  |  |  |  |
| 2026 |  |  |  |  |  |  |  |  |  |
| 2027 |  |  |  |  |  |  |  |  |  |
| 2028 |  |  |  |  |  |  |  |  |  |
| 2029 |  |  |  |  |  |  |  |  |  |
| 2030 |  |  |  |  |  |  |  |  |  |
| TOTAL | \$1,648,122.00 | \$0.00 | \$1,648,122.00 | \$861,184.00 | \$215,807.00 | \$1,076,991.00 | \$1,000,000.00 | \$101,792.00 | \$1,101,792.00 |

City of Bedford Water \& Sewer Enterprise Fund Debt
Appendix H-Summary of Outstanding City W\&S Enterprise Fund Debt

|  |  |  |  |  |  |  | Outstanding Balance | Debt <br> Remaining |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fiscal Year | 2011 Enterprise GO Issue W\&S |  |  | Total City Enterprise Fund Debt |  |  |  |  |
|  | Principal | Interest | Total DS | Principal | Interest | Total DS | \$10,491,514.29 | 100\% |
| 2012 | \$0.00 | \$83,068.00 | \$83,068.00 | \$825,177.29 | \$204,965.00 | \$1,030,142.29 | \$9,666,337.00 | 92\% |
| 2013 | \$80,000.00 | \$97,409.00 | \$177,409.00 | \$817,950.00 | \$206,302.00 | \$1,024,252.00 | \$8,848,387.00 | 84\% |
| 2014 | \$80,000.00 | \$95,049.00 | \$175,049.00 | \$827,290.00 | \$191,083.00 | \$1,018,373.00 | \$8,021,097.00 | 76\% |
| 2015 | \$80,000.00 | \$92,689.00 | \$172,689.00 | \$846,890.00 | \$175,244.00 | \$1,022,134.00 | \$7,174,207.00 | 68\% |
| 2016 | \$80,000.00 | \$90,329.00 | \$170,329.00 | \$861,755.00 | \$156,973.00 | \$1,018,728.00 | \$6,312,452.00 | 60\% |
| 2017 | \$80,000.00 | \$87,969.00 | \$167,969.00 | \$876,895.00 | \$137,330.00 | \$1,014,225.00 | \$5,435,557.00 | 52\% |
| 2018 | \$80,000.00 | \$85,609.00 | \$165,609.00 | \$707,317.00 | \$121,330.00 | \$828,647.00 | \$4,728,240.00 | 45\% |
| 2019 | \$80,000.00 | \$83,249.00 | \$163,249.00 | \$718,030.00 | \$108,258.00 | \$826,288.00 | \$4,010,210.00 | 38\% |
| 2020 | \$61,000.00 | \$80,889.00 | \$141,889.00 | \$540,053.00 | \$94,888.00 | \$634,941.00 | \$3,470,157.00 | 33\% |
| 2021 | \$233,000.00 | \$79,090.00 | \$312,090.00 | \$546,983.00 | \$88,172.00 | \$635,155.00 | \$2,923,174.00 | 28\% |
| 2022 | \$240,000.00 | \$72,216.00 | \$312,216.00 | \$556,903.00 | \$78,377.00 | \$635,280.00 | \$2,366,271.00 | 23\% |
| 2023 | \$409,000.00 | \$65,136.00 | \$474,136.00 | \$567,271.00 | \$68,271.00 | \$635,542.00 | \$1,799,000.00 | 17\% |
| 2024 | \$582,000.00 | \$53,071.00 | \$635,071.00 | \$582,000.00 | \$53,071.00 | \$635,071.00 | \$1,217,000.00 | 12\% |
| 2025 | \$600,000.00 | \$35,901.00 | \$635,901.00 | \$600,000.00 | \$35,901.00 | \$635,901.00 | \$617,000.00 | 6\% |
| 2026 | \$617,000.00 | \$18,201.00 | \$635,201.00 | \$617,000.00 | \$18,201.00 | \$635,201.00 | \$0.00 | 0\% |
| 2027 |  |  |  |  |  |  | \$0.00 | 0\% |
| 2028 |  |  |  |  |  |  | \$0.00 | 0\% |
| 2029 |  |  |  |  |  |  | \$0.00 | 0\% |
| 2030 |  |  |  |  |  |  | \$0.00 | 0\% |
|  |  |  |  |  |  |  | \$0.00 | 0\% |
| TOTAL | \$3,302,000.00 | \$1,119,875.00 | \$4,421,875.00 | \$10,491,514.29 | \$1,738,366.00 | \$12,229,880.29 |  |  |


[^0]:    The sum of $\$ 196,400$ for expanding Highpoint WTP to 1.0 MGD and $\$ 439,700$ for Constructing the 5.0 MGD WTP from Page 20 Table 6 of the PER
    ${ }^{2}$ Full purchases from Lynchburg for FY 2012-FY 2015 and 100,000 gallons per day purchased thereafter.

[^1]:    ${ }^{1}$ Includes $\$ 3.0$ million for 2 years of capitalized interest and $\$ 33.9$ million for project costs.
    ${ }^{2}$ Includes $\$ 750,000$ for 2 years of capitalized interest and $\$ 8.5$ million for project costs.
    ${ }^{3}$ Years of amortization after 2 year capitalized interest period.

[^2]:    ${ }^{1}$ The sum of $\$ 196,400$ for expanding Highpoint WTP to 1.0 MGD a।
    ${ }^{2}$ Full purchases from Lynchburg for FY 2012-FY 2015 and 100,000

[^3]:    ${ }^{1}$ The sum of $\$ 196,400$ for expanding Highpoint WTP to 1.0 MGD and
    ${ }^{2}$ Full purchases from Lynchburg for FY 2012-FY 2015 and 100,000 ga

[^4]:    ${ }^{1}$ The sum of $\$ 196,400$ for expanding Highpoint WTP to 1.0 MGD and:
    ${ }^{2}$ Full purchases from Lynchburg for FY 2012-FY 2015 and 100,000 ga

