# Norman Utilities Authority City of Norman, OK

Water and Wastewater Financial Plan, Cost of Service, and Rate Study

Final Report / April 10, 2023



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#### April 10, 2023

Mr. Chris Mattingly Utilities Director P.O. Box 370 201-C West Gray Norman, OK 73070

#### Subject: Updated Water and Wastewater Financial Plan, Cost of Service Analysis, and Rate Study

Dear Mr. Mattingly,

Raftelis is pleased to provide this report highlighting the key findings of the water and wastewater financial plan, cost of service, , and rate design analysis Raftelis has completed for the Norman Utilities Authority water and wastewater divisions (NUA). This updated report contains revisions based on the feedback from NUA, including input from the City Council Study Sessions held December 20<sup>th</sup> (2022), February 7th, and March 7<sup>th</sup>, 2023.

The primary purpose of this study was to ensure the long-term financial sustainability of the water and wastewater utilities and ensure that the utility revenue sources recovered costs proportionately across all customer classes. This study includes the following for water and wastewater utilities:

- Water cost of service analysis to allocate costs proportionately to customer classes
- 10-year financial plan cash analysis to determine the level of revenues to meet annual expenditures
- Design of water and wastewater rate structure alternatives
- Presentation of final results and Rate Recommendations to NUA staff and the City Council

It has been a pleasure working with you, and we thank you and the Norman staff for the support provided during this study.

Sincerely,

Todd fistians

**Todd Cristiano** Senior Manager

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## Introduction

BackgroundThe City, through the Norman Utilities Authority (NUA), provides service to over 40,000 water and wastewater customers. The NUA operates the water and wastewater utilities as a stand-alone, financially self-sufficient entities. The rates and charges which are implemented by the utilities are intended to fully fund the operation and maintenance, debt service obligations and expenses associated with needed capital investments.

NUA retained Raftelis to conduct a comprehensive financial planning, cost of service and rate design study to ensure that the utilities set rates and charges which will provide an adequate level of income from water and wastewater sales. The charges are intended to fully finance operation and maintenance expenses, debt service, cash-funded capital projects, meet their debt service coverage, and maintain reserve balances in line with City & NUA guidance. This study included the development of:

- Separate water and wastewater financial plans for the 10-year study period, 2022 through 2031.
- A water cost of service analysis to determine the cost to provide service to each customer class
- Water and wastewater rates meeting pricing objectives identified by the NUA

Raftelis used industry standard methodologies supported by the American Water Works Association (AWWA) *Principles of Water Rates, Fees, and Charges* M1 manual and the *Water Environment Federation Manual of Practice* 27 (MOP27) for this rate study.

Appendix A contains the supporting tables detailing the development of the water financial plans, cost of service analysis, and rate design. Appendix B contains the wastewater financial plan and rate design tables.

### Assumptions

This study is based on numerous assumptions. Changes in these assumptions could materially affect the study findings. Raftelis incorporated the following key assumptions into the study:

- The test year, or the year new rates will be in effect, FY 2024. The fiscal period is from July 1, 2023 through June 30, 2024
- The study period forecast is for FY22 through FY31
- Annual customer account growth: 1.2%
- Aggregate annual O&M inflation: 3.8%
- Annual capital project inflation: 5.0% for FY24 and FY25, 3.0% thereafter
- Debt service
  - Coverage requirement is 1.25 x debt service based on the State Loan SRF requirements
  - o Bond terms: 4 .0% interest rate, 20-year term, July 1 issue date

### **Guidance for Rate Structure Design**

For completion of the design of rates and charges, NUA identified several objectives to be captured in the analysis of the alternatives. Important attributes for the rate to be recommended included:

- *Revenue stability*. Rates and charges should generate stable and predictable revenues
- *Interclass equity*. Each customer class's rate should be targeted to recover their cost to provide service i.e. minimize interclass subsidies
- Intraclass equity. Low volume users and high-volume users recover their proportionate share of costs
- *Intergenerational equity.* Equitable cost recovery between new and existing customers through the use of connection fees to fund growth-related projects
- *Conservation.* Encourage wise water use through the use of pricing signals in the rate structure
- *Demand management*. Rate structures which encourage shifting peak demands to non-peak times in the system
- *Customer impact.* Minimum the amount of change in customers' bills resulting from a rate structure change
- *Ease of administration / implementation.* The rate structure should be easy to implement with current billing systems and be easy to explain to customers.

Additionally, the revenues resulting from the recommended rates must be sufficient to generate revenues (across both water and wastewater utilities) capable of maintaining a minimum Debt Service Coverage Ratio of 1.25x required by NUA policies and bond covenants.

#### **Policy on Target Reserves**

The NUA's current reserve practice is to maintain a capital reserve of an average of 5-years of capital expenditures. Raftelis proposes a capital reserve equal to 1-year's depreciation expense. The 5-year average approach can cause swings in reserve levels which would impact the level of rate increases in a given year. Because depreciation expense does not tend to vary significantly from year to year, it helps with maintaining a levelized reserve amount.

The NUA's utility operating reserve level is set at 8.0% of annual operation and maintenance expense. The primary goal of the operating reserve is to absorb cash flow fluctuations due to the variability in monthly expenditures and the inflow of revenues. Combined, these reserves strengthen the utility's financial health and ability to weather unexpected operating costs or capital interruptions. Maintaining adequate funds also prevents the utility from reactively having to adjust rates in response to unforeseen events.

These reserve ratios were taken into account in the development of rate recommendations.

# Water Utility

## Introduction

NUA owns and operates wells, treatment plants, and a large distributions system to serve its customers. To cover the expenses associated with owning, operating and managing large term investments are recouped through the application of a series of fixed charges and volumetric rates applied to the amount of water used by each individual customer. For residential connections, fixed charges are applied to customer bills based upon the number of residential units served at each location and volumetric rates are applied based upon the amount of water which passes through the meter using an increasing rate block structure. This type of rate structure ensures that while all customers contribute through the fixed charges, higher use customers pay incrementally more proportional to the additional demands they place upon NUA's water system assets.

NUA provided Raftelis with five years of historical financial and billing data and the adoption FY23 budget and capital improvement program. We used this data as the basis for the 10-year financial plan forecast and determine the level revenue adjustments required to meeting annual operating expenditures.

Raftelis developed multiple cash flow scenarios based on three future water supply capital project options. These were:

- 1. New wells. Construct new wells in the Garber-Wellington aquifer.
- 2. OKC Water. Purchase additional wholesale treated water from Oklahoma City.
- 3. Lake Thunderbird Augmentation. Augment existing surface water supply.

These scenarios assume growth within NUA's service area which would require new infrastructure to meet the increased demand. Each of these scenarios use different capital strategies to meet that forecasted growth. Scenario 3, the Lake Thunderbird capital project, was modeled for the purposes of this study. It should be noted that despite growth, a portion of the revenue adjustments projected for scenario 3 will still be required to maintain the existing infrastructure and operate the facilities.

Additionally, a financial plan with *No Growth* was also evaluated to determine the revenue requirement from existing customers to maintain the existing infrastructure and operate the facilities. In other words, if growth were to stop, revenue adjustments would still be required to maintain the level of service to meet local, state, and federal regulations as well as customer service level expectations. The revenue adjustments for this theoretical *No Growth* scenario was shown to be generally equivalent to the initial increase for the other scenarios even without any growth.

## **Financial plan**

#### SOURCES OF FUNDS

The water cash flow tracks all activities associated with operating and maintaining the water utility on a daily basis and funding capital projects. The FY23 beginning balance is \$1.5 million.

Operating revenues primarily consist of fixed and variable rate revenues and the capital improvement charge (CIC). Fixed and variable revenue at current FY23 rates will increase from \$21.8 million in FY23 to \$23.9 million in FY32. The CIC will increase from \$2.1 million in FY23 to \$2.3 million in FY32. These projections include an annual growth of 1.2%. In addition to rate revenue, state loans, and connection fees will be used to fund the 10-year capital improvement program. Proposed state loans total \$296.7 million. State loans traditionally offer more competitive interest rates than other debt instruments.

#### **USES OF FUNDS**

#### **Operations & Maintenance Costs**

Operation and maintenance (O&M) expenses consist of the cost collection, treat, and distribute water to customers. Major expenses categories include, chemicals, electricity, supplies and maintenance, and cost allocation transfers. These expenses were forecasted by escalating current budgets using industry standard practices and incorporating the current, higher than normal inflationary environment. Using these industry standard escalations, O&M costs are projected to increase from \$12.9 million in FY 2023 to \$18.3 million in FY 2032. Additionally, Interfund transfers are projected to increase from \$1.1 million in FY 2023 to \$1.5 million in FY 2032, escalating at 3.0% annually based on input from the City Finance Department.

#### **Debt Service Costs**

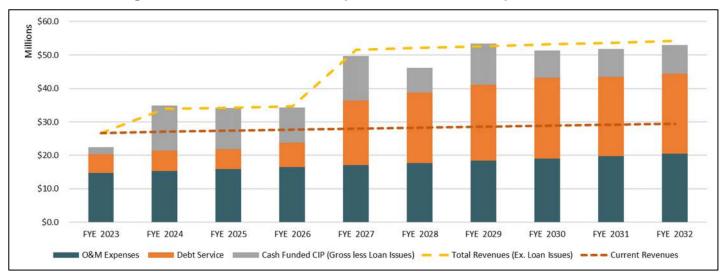
Debt service associated with past borrowing comprises the second category of expense included in the financial plan. These costs are based upon the existing repayment obligations of NUA for past investments in its water infrastructure and is based upon true repayment schedule associated with each bond attributable to the water system. NUA has five outstanding loans associated with the water utility. These loans include the NUA Refunding, the NUA Revenue Note Series 2016, Series 2017, and Series 2018. The payments on these loans will decrease from \$5.5 million in FY2032 to \$2.8 million in FY 2032.

#### **Capital Improvement Program Costs**

The capital improvement program includes costs associated with (1) future capital investments which NUA must make in the water system to ensure long-term physical sustainability of their existing assets and (2) capital investments NUA must make to comply with changing regulatory requirements associated with operating the system. The 10-year capital improvement program totals \$393.3 million and will be funded through a combination of rate revenue, connection charges, and state loans. Major projects include the Lake Thunderbird Augmentation (\$120.5 million), the 40-year line replacement program (\$23.0 million) and the chromium removal project (\$145.0 million). Including the debt financing of the large capital projects indicated above, payments on proposed new water debt will increase to \$21.1 million by FY 2032.

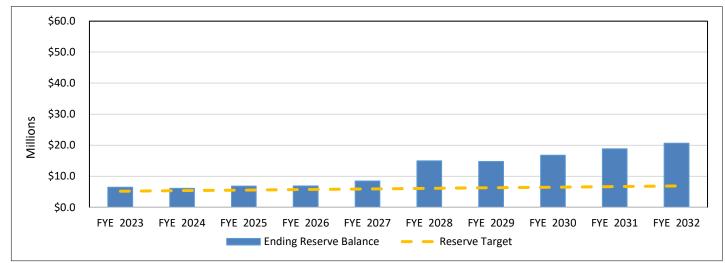
#### INDICATED REVENUE ADJUSTMENTS

Projected water sales revenue under existing rates is insufficient to meet annual operation and maintenance expense (O&M), payments on existing debt service, capital repair and replacement costs while also maintaining recommended and target utility reserve levels. To meet these requirements, a revenue increase of \$6.7 million is required in FY24 and with an additional increase required \$15.4 million in FY27. Figures 3 and 4 summarize the proposed water cash flow analysis.



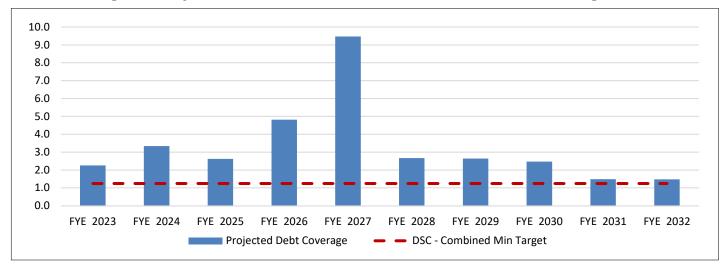
#### Figure 1: Water Revenue with Proposed Increases and Expenditures





#### DEBT SERVICE COVERAGE

Additionally, existing rates will not enable NUA to maintain a debt service coverage (DSC) ratio of 1.25 x annual debt service based on the current loan covenants. The annual DSC ratio is met through the study, when including connection charge revenue. The proposed revenue adjustments generate sufficient net income to meet requirements through the study period. Appendix A contains the detailed financial plan cash flow analysis tables. Figures 3 & 4 below summarize the recommended financial plan for the utility. Figure 5 shows the annual debt service coverage based on the proposed revenue adjustments.



#### Figure 3: Projected Combined Water and Wastewater Debt Service Coverage

## **Cost of Service Analysis**

Raftelis completed a comprehensive cost of service analysis using standard methods supported by the American Water Works Association (AWWA) in its M1 manual, *Principles of Water Rates, Fees, and Charges*. This analysis determines the cost of providing water service to each customer class and guides the design of the proposed rates. While the financial plan analysis indicates *how much* total rate revenue is required, the cost of service analysis determines *from who* - or what is each class' responsibility to the total revenue requirement. The general steps of the cost of service analysis are described below and Figure 1 on the follow page illustrates the process.

- 1. *Revenue Requirement.* Determine the level of revenue required from rates. The revenue requirement includes expenditures in the operating fund: O&M, capital repair and replacement costs, reserves, and changes in fund balance.
- 2. *Cost functionalization.* Assign the detailed costs in the revenue requirements to functional areas in the system. Functional areas include water treatment, transmission and distribution, storage, source of supply, meters, and services, and billing and administrative costs. Costs are functionalized based on the facility that has the most influence on that expense. For example, chemical costs are most influenced by treatment processes so those costs would be allocated to the water treatment category.
- 3. *Demand parameters and customer characteristics.* Functional costs can be allocated to demand parameters and customer characteristics. Demand parameters include average day demands and peak demands. Customer characteristics include the number of accounts by meter size and bills. Each facility is designed to meet specific design requirements in the system. Water treatment facilities are designed and operated to meet maximum day demands. As a result, a portion of water treatment costs would be allocated to the average day demand category and a portion to the peak demand category.
- 4. *Units of service.* The units of service capture the demand and customer characteristics for each customer class. These characteristics include average day demand, peak demand, number of accounts by meter size, and the number of bills.
- 5. *Distribution of costs to customer classes.* Because customer classes are defined by their demand parameters (average day and peak demands) and the account makeup (meters by meter sizes), the allocated costs can be proportionately distributed to each class based on their specific demand and customer characteristics. For example, if the residential customer class represents 50% of total peak day demands, they would be allocated 50% of the allocated peak day demand costs.



#### Figure 4: Water Cost of Service Process

Table 1 summarizes the results of the cost of service analysis compared to the revenue at current rate adjusted for the proposed revenue adjustment. The FY24 revenue requirement, or revenue from rates, totals \$28.8 million. The The cost of service analysis reallocates the revenue requirement to the customer classes based on their demand and customer characteristics (see Figure 4, Allocation). This process simply reallocates costs but does hence the same total shown in column 2 and column 3 of Table 1. This analysis shows that that revenue from residential customers with the proposed increase does not meet the cost to provide service. Conversely, commercial rate revenue with the proposed increase recovers more than the cost to provide service.

#### Table 1: Comparison of Test Year Water Cost of Service to Revenue at Current Rates

(1) Customer Type	(2) FY24 Cost of Service [1]	(3) FY24 Revenue with Increase [1,2]	(4) Change - \$
Residential	\$21,694,058	\$22,429,857	(\$735,799)
Commercial	\$5,144,263	\$4,548,134	\$596,129
Irrigation	\$1,923,023	\$1,783,352	\$139,670
Total	\$28,761,343	\$28,761,343	\$0

[1] Excludes CIC revenue

[2] Represents FY24 revenue at current rates with the proposed revenue adjustment

### Water Rate Structure Alternatives

As there is no 'perfect' rate structure, Raftelis designed multiple rate structures which are expected to meet the revenue requirements for the water utility. These were:

- *Across-the-Board*. This structure simply applied the overall rate increase for FY23 to the existing rate structure.
- *Fixed Charge Recovery*. This structure focused on increasing the level of revenue from the monthly base fee. The volume rate structure retained the 4-tier rates however, the price ratios for tier 3 and tier 4 rates were increased to further the conservation pricing signal.
- *Middle of Road*. This structure was a blend of Across-the-Board and Fixed Charge Recovery. The fixed charge was increased slightly with the remainder of the costs recovered in the volume rate.

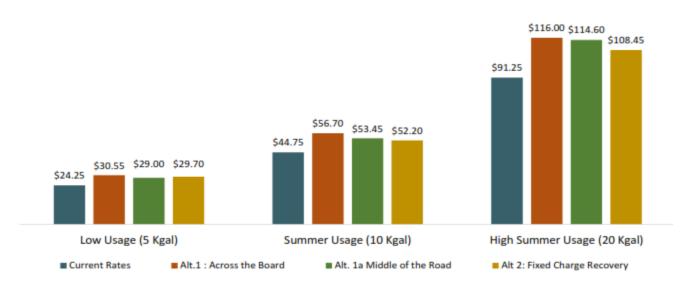
For each of the alternatives, the rates were designed to recover each customer class's identified cost of service, as determined in the cost of service analysis. Two of the rate structures, the Across-the-Board and Fixed Charge recovery options, were presented at the February 7, 2023 City Council Study Session. Following the Study Session, the NUA requested the development of a third option which blended the first two, noted above as the Middle of Road option. For each structure, the recommended rates were designed to recover the total FY 2024 revenue requirement of \$28.76 million and indicating an increase of \$6.7 million. Figure 6 shows the proposed rate structure alternatives.

	Description	Current Rates	Alt 1 Across the Board	Alt. 1a Middle of the Road	Alt. 2 Fixed Charge Recovery
RESIDENTIAL					
RESIDENTIAL					
Base Fee,\$ p	er Bill	\$6.00	\$7.70	\$8.70	\$10.90
CIC, \$ per Bill	I	1.50	1.50	1.50	1.50
Volume Rate	s, \$ per 1,000 gallons				
Tier 1	0 - 5 Kgal	\$3.35	\$4.27	\$3.76	\$3.46
Tier 2	5 - 15 Kgal	4.10	5.23	4.89	4.50
Tier 3	5 - 20 Kgal	5.20	6.63	7.34	6.75
Tier 4	> 20 Kgal	6.80	8.67	10.34	9.51
COMMERCIA	L				
Base Fee,\$ p	er Bill	\$6.00	\$7.70	\$8.70	\$10.90
Volume Rate	s, \$ per 1,000 gallons				
Tier 1	0 - AWC	\$3.80	\$5.62	\$4.78	\$4.69
Tier 2	> AWC	4.20	6.21	7.18	7.04
IRRIGATION					
Base Fee, \$ p	er Bill	\$6.00	\$7.70	\$8.70	\$10.90
CIC, \$ per Bill	I	1.50	1.50	1.50	1.50
Volume Rate	s, \$ per 1,000 gallons				
Tier 1	0 - 5 Kgal	\$3.35	\$4.27	\$3.76	\$3.46
Tier 2	5 - 15 Kgal	4.10	5.23	4.89	4.50
Tier 3	5 - 20 Kgal	5.20	6.63	7.34	6.75
Tier 4	> 20 Kgal	6.80	8.67	10.34	9.51

#### Table 2: Comparison of Current and Proposed Water Rate Structure Alternatives

#### **PROJECTION OF MONTHLY BILLS**

The chart below provides guidance on the expected monthly bills for a single residential customer with varying levels of consumption.



#### Figure 5: Projected Monthly Residential Water Bills at Various Levels of Consumption

#### **COMPARISON TO PEER COMMUNITIES**

For the sake of comparison, Raftelis completed a benchmarking exercise to compare the Low Usage Bills from the preceding chart against the calculated bills for similar usage in peer communities. The chart below shows the result of this analysis. The existing and proposed bills shown in Figure 8 include the base and volumetric charges for a range of customers using between 5,000 gallons and 20,000 gallons of water per month. While not included in this chart, the Middle of the Road values fall between the Alternative 1 & 2 values.



#### Figure 6: Monthly Water Bills for a Customer with Usage of 5,000 gal/month

## **Wastewater Utility**

## Introduction

NUA owns and operates a large base of infrastructure associated with the collection, treatment, and disposal of wastewater. To pay for these activities, the utility maintains several independently accounted-for funds. The largest of these funds is the Water Reclamation Fund (WRF) which pays for the operations of the primary system assets and investments to those assets with the exception of expenses covered by the Sewer Maintenance Fund (Fund 321). Revenues to this fund are derived from a mixture of fixed service charges and volumetric charges. The WRF fixed and volumetric charges, their sufficiency to meet projected system expenses, and needed modifications to the existing rates were evaluated as part of this study. Volumetric charges are assessed based upon the existing practice of billing sewer volumes based upon each customer's average winter consumption (AWC).

### Wastewater Financial Plan

Using data provided by NUA, Raftelis developed a financial plan which included projection of revenues, O&M expenses, existing debt service and the financing of needed capital projects. While NUA has several funds associated with its wastewater operations, the tables and figures below all relate to the Water Reclamation Fund (WRF) portion of those operations, which constitute the large preponderance of both revenues and expenses associated with overall wastewater operations. Importantly, based upon an examination of the expenses and revenues associated with the other funds (sewer maintenance, etc), no modification to existing policies or charges is necessary or recommended in the next several years for the other wastewater funds to maintain their fiscal health.

#### SOURCES OF FUNDS

The wastewater utility (WRF) cash flow tracks the finances associated with the operations of the wastewater utility, including normal operations and capital investments. The FY23 beginning balance is \$1.5 million.

Operating revenues consist of a blend of fixed and variable charges, including services charges and CIC based upon each customer's unit count and a volumetric charge based upon their AWU (average winter usage of water). While customer impact charts in the section below have the maintenance charge included in the monthly bill calculation to provide the full cost which customers will see under the proposed rates, the maintenance funds do not flow into WRF accounts. At current FY23 rates, the combined WRF fixed and variable revenue sources generate approximately \$12 million annually. Under the recommended financial plan, the annual revenues needed from these sources will increase to almost \$16 million for FY32. The wastewater financial plan assumes an annual customer growth rate of 1.2% and volumetric growth rate of 0.6%, based upon recent historical billing patterns. In addition to rate revenue, state loans are proposed for use in funding the at least the next five years of the 10-year capital improvement program. The proposed state loans amount to approximately \$16.4 million and will replace earlier debt that is being repaid over this period.

#### **USES OF FUNDS**

#### **Operations & Maintenance Costs**

The first expense included in the financial plan was current operational costs. Significant contributors to this type of cost include labor, chemicals, electricity, and all the other expenses incurred as part of the normal operations of the utility, including cost allocation transfers to other City departments. To project these costs for future years, these costs were escalated using industry standard practices and took into account the current, higher than normal inflationary environment. In total, the annual operational costs of the wastewater utility are expected to grow from approximately \$9 million in FY24 to \$11 million in FY29.

#### **Debt Service Costs**

The second class of expense included in the financial plan was the debt repayment obligations of the utility for loans taken in the past to construct capital system investments and upgrades. The debt service schedule carried within the financial plan is based upon the actual schedule and amounts associated with all debt currently attributable to the WRF. Based upon current outstanding debts, the wastewater utility will have approximately \$2.5 million in payments for the next several fiscal years, dropping to approximately \$1.2 million in FY2028, the final year of payments on existing debt. New debt associated with future capital investments is projected to grow to approximately \$1.2 million over that same time period.

#### Capital Investment Costs

The final class of expense included in the financial plan are the costs associated with making needed capital investments in the system. Specifically, these were limited to non-growth capital projects which are required to account for aging plant facilities and equipment and comply with the regulatory requirements associated with permits for the existing treatment infrastructure. A table of the capital projects which were included in our evaluation are included in Appendix B. For the past several rate setting cycles, NUA has been in the practice of funding most or all of its wastewater capital investments using cash from rate receipts and reserves. As a result of this study and rate setting, Raftelis is recommending that NUA issue debt to finance its wastewater capital program through at least 2028. There are two reasons for this recommendation:

- 1. The majority of debt service from outstanding bonds is maturing over the next two to three years, meaning that those earlier debts will have been fully repaid and no further payments on those notes is required. This provides the opportunity to borrow money without adding to the utility's overall debt burden, stabilizing rate revenue requirements and maintaining the relative proportion of the utility budget dedicated to debt repayment; and
- 2. Due to the size of several projects in the WRF capital improvement plan (CIP), debt financing these projects is the only way to avoid a significantly larger, immediate increase in the rates-based revenues which would be required to cash finance these projects.

The net result from this change in capital financing practices will be that the payment associated with debt which is due to mature will be replaced with new debt service payments, minimizing the impact of needed capital projects on the current fixed service charges and volumetric rates. In essence, old capital debt will be replaced with new capital debt resulting in a minimized change in the utility's operating revenue requirements and allowing the utility to build sufficient reserves to re-commence cash-financed capital investments in FY2029.

Over the next five years, the escalated costs associated with the current capital investment plan total approximately \$16.4 million and will result in new annual debt service payments of between \$1 and \$1.2 million.

#### INDICATED REVENUE ADJUSTMENTS

The financial plan compiles a summation of the projected costs described above and compares current revenues against future expenses. A graphical projection of the financial plan, the recommended revenues to maintain the utility's fiscal health, and the resulting reserves balances is presented in the two charts noted as Figures 9 & 10. The debt service indicated on the financial plan chart includes all projected debt service obligations associated with the use of debt-financed capital investments through FY2028.

The projection of utility operating revenue includes an approximately 10% increase in revenue from fixed and volumetric charges in FY2024 and an approximately 15% increase in FY2029. The adjustment for FY2024 is

included in the rate recommendations included in this report. The *pro forma* which forms the basis for the charts is included in Appendix B.

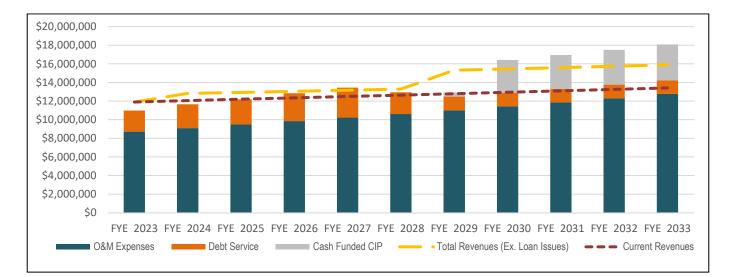
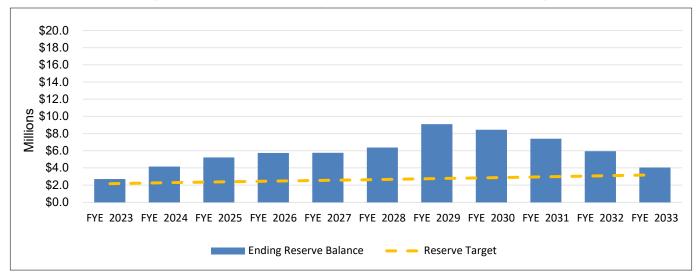


Figure 7: NUA - WRF Revenues and Expenditures

#### Figure 8: Wastewater Ending Fund Balance and Reserve Target



### Wastewater Rate Structure Alternatives

Consistent with the NUA policies and goals discussed earlier, Raftelis designed two sets of rates for wastewater service. Both of the options are expected to result in financial performance indicated in the preceding financial plan charts. The first option is an across the board (ATB) increase of the Base service charge and volumetric rates. The second option (FCR) increases the fixed charge (thereby providing additional stability in the overall revenue generation) while maintaining the current volumetric rate in an effort.

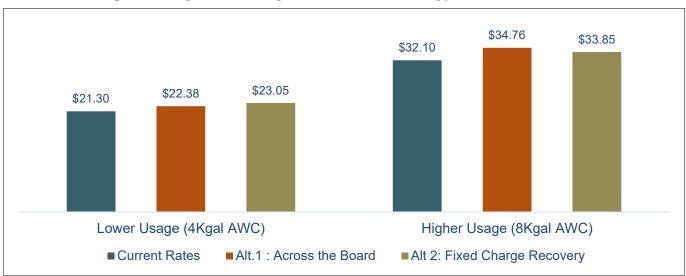
#### **Table 3: Comparison of Current and Proposed Wastewater Rate Alterantives**

Description	FY24 Existing	Alt. 1 ATB	Alt. 2 FCR
RESIDENTIAL			
Base Fee,\$ per Bill	\$5.00	\$5.50	\$6.75
<b>Volume Rates, \$ per 1,000 gallons</b> Billed Volume	2.70	2.97	2.70
COMMERCIAL			
Base Fee,\$ per Bill	\$5.00	\$5.50	\$6.75
Volume Rates, \$ per 1,000 gallons Billed Volume (85% of Water Use)	2.70	2.97	2.70

As previously indicated, either option will allow NUA to fully fund operations and capital investment (assuming the transition to debt-financed capital investment) while delivering the financial performance needed to ensure the long-term fiscal health of the utility.

#### **PROJECTION OF MONTHLY BILLS**

The chart below provides guidance on the expected monthly bills for a single residential unit customer with varying AWC.



#### Figure 9: Projected Monthly Wastewater Bills for Hypothetical Customers

#### **COMPARISON TO PEER COMMUNITIES**

Finally, Raftelis benchmarked expected monthly sewer bills of the current and both proposed rate options against peer communities. Figure 13 below shows the result of this analysis. As noted on the chart, the changes to the fixed charges and rates are not applicable to the existing maintenance or CIC charges, both of which remain unchanged from the current levels.



#### Figure 10: Monthly Wastewater Bills for a Customer with 5,000 gal/month AWC

## **Reliance on Client Provided Data**

During this project, NUA (and/or its representatives) provided Raftelis with a variety of technical information, including cost and revenue data. Raftelis did not independently assess or test for the accuracy of such data – historic or projected. Raftelis has relied on this data in the formulation of our findings and subsequent recommendations, as well as in the preparation of this report. Raftelis also relied on cost allocation data provided by the NUA needed to complete the cost-of-service analysis.

There are often differences between actual and projected data. Some of the assumptions used for projections in this report will not be realized, and unanticipated events and circumstances may occur. Therefore, there are likely to be differences between the data or results projected in this report and actual results achieved, and those differences may be material. As a result, Raftelis takes no responsibility for the accuracy of data or projections provided by or prepared on behalf of NUA, nor do we have any responsibility for updating this report for events occurring after the date of this report.

## APPENDIX A: WATER UTILITY FINANCIAL PLAN, COST OF SERVICE,AND RATE DESIGN TABLES

	Line						Fiscal Year Ending	ır Ending				
Bejinntig Fund Baince         51,42,00         56,486,53         56,186,41         57,023,75         515,239,423         515,111,56         51,113,56 </th <th>۶</th> <th></th> <th>FY23</th> <th>FY24</th> <th>FY25</th> <th>FY26</th> <th>FY27</th> <th>FY28</th> <th>FY29</th> <th>FY30</th> <th>FY31</th> <th>FY32</th>	۶		FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32
Surves of fund;         Surves of	T-	Beginning Fund Balance	\$1,452,000	\$6,489,635	\$6,198,94 <b>1</b>	\$6,918,491	\$7,023,754	\$8,718,422	\$15,239,429	\$15,111,556	\$17,188,352	\$19,316,575
Fired denetics         33.97.463         53.43.50         53.53.73         53.43.51         53.53.74         53.53.74         53.53.74         53.53.74         53.53.74         53.53.74         53.53.74         53.53.74         53.53.74         53.53.74         53.53.74         53.53.74         53.53.74         53.53.74         53.53.74         53.53.73         53.53.53         53.73.73         53.53.53         53.73.73         53.53.53         53.73.73         53.53.53         53.73.73         53.53.53         53.53.53         53.53.53         53.53.53         53.53.53         53.53.53         53.53.53         53.53.53         53.53.53         53.53.53         53.53.53         53.53.53         53.53.53         53.53.53         53.53.53         53.53.53		Sources of Funds										
	2	Fixed Charges	\$3,971,693	\$5,243,950	\$5,297,439	\$5,351,472	\$8,217,207	\$8,301,023	\$8,385,693	\$8,471,227	\$8,557,634	\$8,644,922
Commending metric statistic stati	m	Residential Variable	13,378,721	17,664,345	17,844,521	18,026,536	27,679,817	27,962,152	28,247,365	28,535,489	28,826,551	29,120,581
	4	Commercial Variable	4,433,014	5,853,048	5,912,749	5,973,059	9,171,656	9,265,207	9,359,712	9,455,181	9,551,624	9,649,050
Other Non-Nates Revenues         Section Solution         Station	ы С	Capital Improvement Charge	2,092,878	2,114,225	2,135,790	2,157,575	3,312,966	3,346,758	3,380,895	3,415,380	3,450,217	3,485,409
					CC+'OCT'TC+	340,000,104	0+0'+00'0+0			117'110'646	ראהיהמרימרל	בטביבבסיטרל
Connection Feet         697/44         533.68         84.73.73         56.90         536.73         56.97         56.73         56.97         56.73         56.97         56.73         56.97         56.73         56.97         56.73         56.97         56.73         56.53         56.56	2	Denalties	\$337,126	\$340 497	\$343 902	\$347 341	\$350 <b>81</b> 5	<b>\$354 373</b>	\$357,866	\$361 445	\$365 በ59	\$368 710
Meter Sales         187/018         188/018         190/77         192/65         194/665         196/37         196/35         196/37         196/35 <th< td=""><td></td><td>Connection Fees</td><td>697,845</td><td>833.868</td><td>842.373</td><td>850.966</td><td>859.645</td><td>868.414</td><td>677.778</td><td>886.220</td><td>895.259</td><td>904.391</td></th<>		Connection Fees	697,845	833.868	842.373	850.966	859.645	868.414	677.778	886.220	895.259	904.391
	6	Meter Sales	187,018	188,888	190,777	192,685	194,612	196,558	198,523	200,509	202,514	204,539
Rental         355,975         360,545         364,150         357,792         371,470         375,184         378,395         382,726         385,553         383,005         113,591         313,005         113,591         313,005         113,567         313,005         113,567         313,005         113,567         313,005         113,567         313,005         113,574         313,005         113,567         313,005         113,567         313,005         113,567         313,005         113,567         313,005         113,567         313,005         113,567         313,005         113,567         313,005         113,567         313,005         113,567         313,005         113,567         313,005         113,567         313,005         113,574         313,005         113,567         313,005         113,574         313,005         113,547         313,005         113,567         313,005         113,547         313,005         113,567         313,005         113,567 <th< td=""><td>2</td><td>Interdepartmental</td><td>183,593</td><td>185,429</td><td>187,283</td><td>189,156</td><td>191,048</td><td>192,958</td><td>194,888</td><td>196,837</td><td>198,805</td><td>200,793</td></th<>	2	Interdepartmental	183,593	185,429	187,283	189,156	191,048	192,958	194,888	196,837	198,805	200,793
Interest         161,220         162,323         164,461         166,105         167,766         169,444         171,138         172,850         174,578           Cost Mocation         70,670         778,377         788,160         79,4022         80,1952         83,635         133,678         137,678         133,678         111,459         112,574         53,08,129         53,176,561         53,247,793         53,308,772         53           Asst Sales         103,960         105,000         15,550         131,686         53,210,460         53,247,739         53,75341         53,308,772         53           Proposed Bonds and Loans         1,900,000         5,250,000         5,250,000         5,250,000         5,250,000         5,250,000         5,250,000         5,251,073         5,140,466         5,251,046         5,314,66	Ξ	Rental	356,975	360,545	364,150	367,792	371,470	375,184	378,936	382,726	386,553	390,418
Cost Allocation         770,670         778,160         74,022         801,962         818,082         826,563         834,525         834,525           Asset Sales         127,181         112,781         137,003         137,055         137,056         137,055         137,055         137,056         137,056         137,056         137,056         137,056         137,056         137,056	2	Interest	161,220	162,832	164,461	166,105	167,766	169,444	171,138	172,850	174,578	176,324
Asset Sales         127,815         129,033         131,368         133,005         133,005         133,005         133,005         133,005         133,005         133,405         133,705         133,705         133,405         133,405         133,405         133,405         133,705         133,405         133,405         133,415         133,405         133,405         133,735         133,735         133,735         133,735         133,735         133,735         133,735         133,735         133,735         133,735         133,735         133,305,277         33,315,514         113,573         133,305,277         33,310,577         33,310,455         13,3306,277         33,310,577         33,310,457         33,310,455         113,574         1113,574         1113,574         1113,574         113,5754         53,5369,297         53,53,594,297         53,53,594,297         53,544,297         53,544,297         53,52,514,046         53,53,594,297         5	m	Cost Allocation	770,670	778,377	786,160	794,022	801,962	809,982	818,082	826,263	834,525	842,870
Other         113.7         106.500         105.000         105.504         111.754         113.753         111.7459         112.574         113.753           Total Non-Rate Revenue         32.926,222         \$3.984,529         \$3.115,541         \$3.10,606         53.175,341         \$3.308,272         \$3.3308,272         \$3.3318,541           Proposed Bonds and Loans         1,900,00         5,250,000         5,250,000         5,250,000         5,159,46         53.175,531         \$3.308,272         \$3.3,308,272	4	Asset Sales	127,815	129,093	130,384	131,688	133,005	134,335	135,678	137,035	138,405	139,789
Total Non-Rate Revenue         \$2,926,222         \$3,084,529         \$3,115,541         \$3,146,865         \$3,176,303         \$3,210,460         \$3,232,739         \$3,375,341         \$3,308,272         \$3,308,274         \$3,210,046         \$5,5914,046         \$5,5914,046         \$5,5914,046         \$5,54,241,4           Total Bonds and Loans         \$1,00000         \$5,592,0000         \$5,5924,020         \$5,148,278         \$5,148,278         \$5,143,27         \$5,14,046         \$5,25,14,046         \$5,24,241,4           Total Bonds and Loans         \$5,200,000         \$5,392,040         \$55,244,82,78         \$5,512,073         \$1,175,507         \$5,424,14         \$1,25,292,12	ы	Other	103,960	105,000	106,050	107,110	108,181	109,263	110,356	111,459	112,574	113,700
Proposed Bonds and Loans         1,900,000         5,250,000         5,250,000         5,250,000         5,250,000         5,551,550,568         25,115,268         25,115,068         25,514,046         -<	<b>1</b> 6	Total Non-Rate Revenue	\$2,926,222	\$3,084,529	\$3,115,541	\$3,146,865	\$3,178,503	\$3,210,460	\$3,242,739	\$3,275,341	\$3,308,272	\$3,341,534
Proposed State Loans         1,900,000         5,250,000         5,250,000         5,250,000         5,250,000         5,250,100         5,250,100         5,250,100         5,250,1406         -		Proposed Bonds and Loans										
Proposed Revenue Bonds         -	5	Proposed State Loans	1,900,000	5,250,000	I	31,269,420	182,888,128	24,426,474	25,159,268	25,914,046	I	I
Total Bonds and Loans         51,900,000         55,250,000         50         531,269,420         582,189,188         525,159,268         525,14,046         50           Total Bonds and Loans         528,702,527         539,210,097         534,306,040         565,924,927         523,448,278         577,775,672         579,066,664         533,694,297         554,241,4           Total Uses of Funds         528,702,527         539,210,097         534,306,040         565,924,927         524,448,278         577,775,672         579,066,664         533,694,297         554,241,4           Total Uses of Funds         512,946,273         513,238,734         514,137,725         514,488,218         515,789,762         516,937,520         517,635,757         514,260,6         532,547         1,367,374         1,408,395         1,450,6           Interfund Transfers         1,111,800         1,145,154         1,179,509         1,251,341         1,288,881         1,327,547         1,367,374         1,408,395         1,450,6           Debt Service         51,477,533         51,473,618         51,488,818         57,374         1,367,374         1,408,395         1,450,6           NUA Refunding         51,477,533         51,488,818         51,371,75         50         50         50         50         50 <td><sup>∞</sup></td> <td>Proposed Revenue Bonds</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td></td>	<sup>∞</sup>	Proposed Revenue Bonds	1	1	1	1	1	1	1	1	1	
Total Sources of Funds         528,702,527         539,210,097         534,306,040         565,924,927         523,448,278         577,775,672         579,066,664         553,694,297         554,241,4           Total Uses of Funds         512,946         513,528,734         514,137,725         514,668,162         515,789,762         516,997,520         517,635,767         518,298,0           Operation and Maintenance Expense         512,946,273         513,528,734         1,179,509         1,214,894         1,251,341         1,288,881         1,327,547         1,367,374         1,408,395         1,450,6           Debt Service         51,477,533         51,475,154         1,179,509         1,214,894         1,251,341         1,288,881         1,327,547         1,367,374         1,408,395         1,450,6           Debt Service         51,477,533         51,473,618         51,488,118         51,488,818         5,737,775         50         51,327,374         1,408,395         1,450,6           NUA Refunding         51,477,533         51,473,518         51,488,818         5,737,775         50         50         50,520         51,450,6         50,66,614         53,423,67         54,50,6           NUA Revenue Note, Refunding         51,473,518         51,488,818         57,377,75         713,61,520	61	Total Bonds and Loans	\$1,900,000	\$5,250,000	\$0	Ş31,269,420	Ş182,888,128	Ş24,426,474	Ş25,159,268	\$25,914,046	\$0	ŞO
Total Uses of Funds         \$12,346,273         \$13,528,734         \$14,137,725         \$14,668,162         \$15,789,762         \$16,382,468         \$16,997,520         \$17,635,767         \$18,238,06           Operation and Maintenance Expense         \$1,111,800         1,145,154         1,179,509         1,214,894         1,251,341         1,288,881         1,327,547         \$1,408,395         1,450,6           Interfund Transfers         1,111,800         1,145,154         1,179,509         1,214,894         1,251,341         1,288,881         1,327,547         1,367,374         1,408,395         1,450,6           Debt Service         1,111,800         1,145,154         1,179,509         1,214,894         1,251,341         1,288,881         1,327,547         1,367,374         1,408,395         1,450,6           NUA Refunding         \$1,417,533         \$1,473,618         \$1,484,118         \$1,488,818         \$737,775         \$0         \$0         \$0         \$0         \$0         \$0         \$0         \$0         \$1,450,6         1,450,6         \$1,430,8         \$1,488,818         \$1,710,718         \$1,367,775         \$1,367,775         \$1,367,775         \$1,408,786         \$1,450,6         \$1,484,118         \$1,488,818         \$7,136,755         \$1,470,170         \$1,486,418         \$1,488,818 <td>20</td> <td>Total Sources of Funds</td> <td>\$28,702,527</td> <td>\$39,210,097</td> <td>\$34,306,040</td> <td></td> <td>\$234,448,278</td> <td>\$76,512,073</td> <td>\$77,775,672</td> <td>\$79,066,664</td> <td>\$53,694,297</td> <td>\$54,241,497</td>	20	Total Sources of Funds	\$28,702,527	\$39,210,097	\$34,306,040		\$234,448,278	\$76,512,073	\$77,775,672	\$79,066,664	\$53,694,297	\$54,241,497
Interfund Transfers         1,111,800         1,145,154         1,179,509         1,251,341         1,288,881         1,327,547         1,367,374         1,408,395         1,450,6           Debt Service         \$1,477,533         \$1,473,618         \$1,484,118         \$1,488,818         \$737,775         \$0 <t< td=""><td>1</td><td>Total Uses of Funds Operation and Maintenance Expense</td><td>\$12,946,273</td><td>\$13,528,734</td><td>\$14,137,725</td><td>\$14,668,162</td><td>\$15,218,589</td><td>\$15,789,762</td><td>\$16,382,468</td><td>\$16,997,520</td><td>\$17,635,767</td><td>\$18,298,085</td></t<>	1	Total Uses of Funds Operation and Maintenance Expense	\$12,946,273	\$13,528,734	\$14,137,725	\$14,668,162	\$15,218,589	\$15,789,762	\$16,382,468	\$16,997,520	\$17,635,767	\$18,298,085
Debt Service       \$1,477,533       \$1,473,618       \$1,488,818       \$737,775       \$0       \$0       \$0       \$0         NUA Refunding       \$1,477,533       \$1,473,618       \$1,484,118       \$1,488,818       \$737,775       \$0       \$0       \$0       \$0       \$0         NUA Refunding       Series 2       768,560       769,232       764,570       \$769,629       769,242       768,575       771,017       384,236         NUA Revenue Note, Refunding Series 2       768,560       769,232       769,529       7170,118       2,130,920       2,049,140       2,006,417       1,962,6         NUA Series 2017 Drinking Water SRF Lc       2,316,616       2,281,438       2,245,342       \$2,208,259       2,170,118       2,130,920       2,049,140       2,006,417       1,962,6         NUA Series 2018 Primissory Note       888,795       890,525       890,085       887,915       887,216       7,049,140       2,006,417       1,962,6         NUA Series 2018 Primissory Note       888,795       890,555       \$2,208,259       2,170,118       2,130,920       2,049,140       2,006,417       1,962,6         NUA Series 2018 Primissory Note       888,795       887,915       887,915       887,915       887,216       7,049,140       2,049,140 </td <td>22</td> <td>Interfund Transfers</td> <td>1,111,800</td> <td>1,145,154</td> <td>1,179,509</td> <td>1,214,894</td> <td>1,251,341</td> <td>1,288,881</td> <td>1,327,547</td> <td>1,367,374</td> <td>1,408,395</td> <td>1,450,647</td>	22	Interfund Transfers	1,111,800	1,145,154	1,179,509	1,214,894	1,251,341	1,288,881	1,327,547	1,367,374	1,408,395	1,450,647
NUA Revenue Note, Refunding Series 2       768,550       769,242       768,575       772,520       771,017       384,236         NUA Series 2017 Drinking Water SRF Lc       2,316,616       2,281,438       2,245,342       \$2,208,259       2,170,118       2,130,920       2,049,140       2,006,417       1,962,6         NUA Series 2017 Drinking Water SRF Lc       2,316,616       2,281,438       2,245,342       \$2,208,259       2,170,118       2,130,920       2,049,140       2,006,417       1,962,6         NUA Series 2018 Primissory Note       888,795       890,555       \$890,085       \$87,915       887,245       888,200       891,155       886,1         Master Conservancy Debt       71,229       70,654       70,165       -       -       -       -       -	33	Debt Service NUA Refunding	\$1,477,533	\$1,473,618	\$1,484,118	\$1,488,818	\$737.775	ŚO	Ş	ŞO	\$0	\$0
NUA Series 2017 Drinking Water SRF Lc 2,316,616 2,281,438 2,245,342 \$2,208,259 2,170,118 2,130,920 2,090,594 2,049,140 2,006,417 NUA Series 2018 Primissory Note 888,795 890,525 890,955 \$890,085 887,915 887,245 888,200 891,155 888,165 Master Conservancy Debt 71,229 70,958 70,674 70,165	24	NUA Revenue Note, Refunding Series 2		769,232	764,570	\$769,629	769,242	768,575	772,520	771,017	384,236	
Master Conservancy Debt 71,229 70,958 70,674 70,165	ະ ທ	NUA Series 2017 Drinking Water SRF Lc NUA Series 2018 Primissorv Note		2,281,438 890.525	2,245,342 890.955	\$2,208,259 \$890.085	2,170,118 887.915	2,130,920 887.245	2,090,594 888.200	2,049,140 891.155	2,006,417 888.165	1,962,636 886.180
	27	Master Conservancy Debt	71,229	70,958	70,674	70,165				,		

City of Norman, OK - Norman Utilities Authority (NUA)		nalysis
City of Norman, O	Water Utility	Cash Flow Analysi

Line						Fiscal Year Ending	ır Ending				
ů	Description	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32
28	Proposed	133,686	503,082	503,082	2,703,232	15,571,438	17,290,111	19,060,344	20,883,684	20,883,684	21,119,394
29	29 Capital Improvement Program	\$3,950,400	\$3,950,400 \$18,838,050	\$12,310,515	\$41,806,421	\$41,806,421 \$196,147,192	\$31,835,572	\$37,381,871	\$34,029,979	\$8,359,411	\$8,610,193
30	30 Total Uses of Funds	\$23,664,892 \$39,500,791	\$39,500,791	\$33,586,490	\$65,819,664	\$65,819,664 \$232,753,610	\$69,991,067	\$77,903,544	\$76,989,869	\$51,566,074	\$52,327,135
31 32	<ol> <li>Annual Surplus/(Deficiency)</li> <li>Ending Fund Balance</li> </ol>	\$5,037,635 <b>\$6,489,635</b>	(\$290,694) <b>\$6,198,941</b>	\$719,550 <b>\$6,918,491</b>	\$105,263 <b>\$7,023,754</b>	\$1,694,668 <b>\$8,718,422</b>	\$6,521,007 <b>\$15,239,429</b>	(\$127,872) <b>\$15,111,556</b>	\$2,076,796 <b>\$17,188,352</b>	\$2,128,223 <b>\$19,316,575</b>	\$1,914,362 <b>\$21,230,937</b>
33 34	Target Reserves Operating (8% of Line 19) Canital Baserve (1 vear's Derreciation Ev & 4 100 000	\$1,124,646 \$4 100 000	\$1,173,911 \$4 773 000	\$1,225,379 \$1 349 690	\$1,270,644 \$4 480 181	\$1,317,594 \$4 614 586	\$1,366,291 \$4 753 074	\$1,416,801 \$4 895 614	\$1,469,192 \$5,042,483	\$1,523,533 \$5 193 757	\$1,579,899 \$5 349 570
35		\$5,224,646	\$5,396,911	\$5,575,069	\$5,750,825	\$5,932,180	\$6,119,315	\$6,312,416	\$6,511,674	\$6,717,290	\$6,929,469
36	<b>36</b> Over/(Under) Reserves	\$1,264,989	\$802,030	\$1,343,423	\$1,272,929	\$2,786,242	\$9,120,114	\$8,799,141	\$10,676,678	<i>\$12,599,285</i>	\$14,301,468
31 37	Annual Revenue Increase Cumulative Increase	0.0% 0.0%	30.7% 30.7%	0.0% 30.7%	0.0% 30.7%	52.0% 98.7%	0.0% 98.7%	0.0% 98.7%	0.0% 98.7%	0.0% 98.7%	0.0% 98.7%
38	Water Utility Debt Service Coverage	1.88	2.87	2.83	2.04	1.58	1.50	1.38	1.28	1.29	1.29

City of Norman, OK - Norman Utilities Authority (NUA)	Nater Utility	Projected Operation and Maintenance Expense
City of <b>N</b>	Water L	Projecte

Line						Fiscal Year Ending	Ending				
٥N	Description	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32
1	Salaries / Benefits	\$4,689,677	\$4,877,264	\$5,072,355	\$5,249,887	\$5,433,633	\$5,623,810	\$5,820,644	\$6,024,366	\$6,235,219	\$6,453,452
2	Supplies / Materials	3,134,440	3,291,162	3,455,720	3,593,949	3,737,707	3,887,215	4,042,704	4,204,412	4,372,588	4,547,492
£	Services / Maintenance	3,063,108	3,216,263	3,377,077	3,512,160	3,652,646	3,798,752	3,950,702	4,108,730	4,273,079	4,444,002
4	Internal Services	263,506	276,681	290,515	302,136	314,221	326,790	339,862	353,456	367,595	382,298
5	Cost Allocations	1,861,667	1,936,134	2,013,579	2,084,054	2,156,996	2,232,491	2,310,628	2,391,500	2,475,203	2,561,835
9	Emp Turnover Savings	(66,125)	(68,770)	(71,521)	(74,024)	(76,615)	(79,296)	(82,072)	(84,944)	(87,917)	(90,994)
7	Inter-Fund Transfers	1,111,800	1,145,154	1,179,509	1,214,894	1,251,341	1,288,881	1,327,547	1,367,374	1,408,395	1,450,647
						•					

\$19,748,73**2** 

\$19,044,162

\$18,364,894

\$17,710,015

\$17,078,643

\$16,469,929

\$15,883,056

\$15,317,234

\$14,673,888

Total Operation and Maintenance Expense \$14,058,073

∞

City of Norman, OK - Norman Utilities Authority (NUA) Water Utility Projected Capital Improvement Program (Including Inflation)

FY23 \$
1,900,000
-
•
- 3,885
1
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262,000 213, 100,000 105
428.400 3.213
- 241,
- 367
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- 26,
1
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- 525,
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50,000 525,
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City of Norman, OK - Norman Utilities Authority (NUA) Water Utility Projected Capital Improvement Program (Including Inflation)

Line	% Growth	Funding				-	Fiscal Year Ending						
No Description	Related Source	Source	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32	Total
			Ş	Ş	Ş	Ş	Ş	Ş	Ş	ş	Ş	Ş	
65 Placeholder	Cash	Ļ										 	•
66 Placeholder	Cash	- u		•	•		•		•		•		
Total			3,950,400	18,838,050	12,310,515	41,806,421	41,806,421 196,147,192	31,835,572	37,381,871	34,029,979	8,359,411	8,610,193	393,269,605

Io.DescriptionCoperating ExpenseExpense ExpenseExpenseRevenue Requirement13,528,734ExpenseOperation and Maintenance Expense13,528,7340Interfund Transfers1,145,1545,485,771Existing Debt Service1,145,1545,383,050Proposed Debt Service1,145,1545,383,050Proposed Debt Service1,145,1545,383,050Proposed Debt Service1,145,1545,383,050Proposed Debt Service1,4673,88824,826,903Proposed Bonds and Loans14,673,88824,826,903Neter Sales(188,888)(833,868)Interdepartmental(188,888)(833,868)Meter Sales(188,888)(149,7)(5,250,000)Penalties(188,882)(142,25)Connection Fees(188,882)(142,25)Interdepartmental(162,832)(2114,225)Rental(162,832)(114,225)Operating Reserve Increase (Decrease)(105,000)Cic(105,000)Operating Reserve Increase (Decrease)(2,250,661)Operating Reserve Increase (Decrease)(2,250,661)Subtotal(2,250,661)(3,488,787)Subtotal(2,250,661)(3,488,787)Subtotal(2,250,661)(3,488,787)Subtotal(2,250,661)(3,488,787)Subtotal(2,250,661)(3,488,787)Subtotal(2,250,661)(3,488,777)Subtotal(2,250,661)(2,250,661)Subtotal(2,250,661					
Revenue Requirement13,528,734Operation and Maintenance Expense13,528,734Incremental OKC Water Cost (3 mgd)1,145,154Existing Debt Service5,485,771Existing Debt Service5,383,050Capital Improvement Program14,673,888Otal Revenue Requirement14,673,888Otal Revenue Requirement14,673,888Proposed Debt Service(5,250,000)Proposed Debt Service14,673,888Capital Improvement Program14,673,888Otal Revenue Requirement14,673,888Proposed Bonds and Loans(188,888)Proposed Bonds and Loans(188,888)Proposed Bonds and Loans(188,888)Proposed Bonds and Loans(188,888)Oconnection Fees(188,883)Interdepartmental(165,832)Connection Fees(105,000)Other(105,000)Other(105,000)Other(105,000)Other(105,000)Other(105,000)Other(105,000)Other(105,000)Other(105,000)Other(105,000)Other(105,000)Other(2,250,661)Other(2,250,661)Other(2,250,661)Other(2,250,661)Other(2,250,661)Other(2,250,661)Other(2,250,661)Other(2,250,661)Other(2,338,116)Other(2,250,661)Other(2,338,116)Other <td< th=""><th>Line No.</th><th>Description</th><th>Operating Expense</th><th>Capital Expense</th><th>Total</th></td<>	Line No.	Description	Operating Expense	Capital Expense	Total
Operation and Maintenance Expense Incertund Transfers13,528,734 0Incertund Transfers1,145,154Existing Debt Service5,485,771Existing Debt Service5,338,050Proposed Debt Service5,338,050Total Revenue Requirement14,673,888Oral Revenue Requirement14,673,888State14,673,888Total Revenue Requirement14,673,888Proposed Bonds and Loans(5,250,000)Penalties(188,888)Connection Fees(188,888)Meter Sales(188,888)Interdepartmental(188,888)Neter Sales(188,883)Other(105,000)Cost Allocation(120,093)Other(105,000)Cost Allocation(105,000)Cic(2,114,225)Operating Reserve Increase (Decrease)(2,526,661)Cic(2,250,661)Cic(2,250,661)Cic(105,000)Cic(2,250,661)Cic(105,000)Cic(2,114,225)Operating Reserve Increase (Decrease)(2,250,661)Cic(105,000)Cic(105,000)Cic(105,000)Cic(105,000)Cic(105,000)Cic(105,000)Cic(105,000)Cic(105,000)Cic(105,000)Cic(105,000)Cic(105,000)Cic(105,000)Cic(105,000)Cic(105,000)Cic<		Revenue Recruitement			
Interfund Transfers 1,145,154 5,485,771 Transfers 5,485,771 Proposed Debt Service 5,93,082 Capital Improvement Program 18,838,050 1,145,154 5,033,082 Capital Improvement Program 18,838,050 1,145,153 24,826,903 24,826,903 24,826,903 24,826,903 24,826,903 24,826,903 24,826,903 24,826,903 24,826,903 24,929 14,672 25,0000 Penalties (185,429) Penalties (125,093) Other for (178,377) Asset Sales (129,093) Other (126,000) CiC (2,114,225) Other (105,000) CiC (2,114,225) Other (2,250,661) CiC (2,250,661) CiC (2,214,23,228 16,33,116 Other (2,232,228 16,33,116 Other (2,232,228 16,33,116 Other (2,232,228 16,33,116 Other (2,230,220) CiC (2,240,00) CiC (2,240,00) CiC (2,250,661) CiC (2,250,661) CiC (2,250,661) CiC (2,250,661) CiC (2,233,228 16,33,116 Other (2,233,210) CiC (2,233,216 0ther (2,233,216 0ther (2,233,228 16,33,116 Other (2,233,216 0ther (2,233,	-	Operation and Maintenance Evnence	13 578 734		13 578 734
interfund Transfers 1,145,154 Existing Debt Service 5,485,771 Proposed Debt Service 5,33,082 Capital Improvement Program 1,4,673,888 24,826,903 <b>Total Revenue Requirement Adjustments</b> 14,673,888 24,826,903 <b>Proposed Bonds and Loans</b> 14,673,888 24,826,903 Proposed Bonds and Loans 14,673,888 14,673,888 15,250,000 Proposed Bonds and Loans 14,673,888 14,673,888 14,673,733 Proposed Bonds and Loans 14,673,888 14,673,888 14,673,733 Proposed Bonds and Loans 14,673,888 14,673,733 Proposed Bonds and Loans 14,673,888 14,673 14,725 14,7	4				
Existing Debt Service       5,485,771         Existing Debt Service       503,082         Proposed Debt Service       5,33,050         Total Revenue Requirement       14,673,888       5,485,771         Total Revenue Requirement       14,673,888       24,826,903         Proposed Bonds and Loans       14,673,888       33,868         Revenue Requirement Adjustments       14,673,888       833,868         Meter Sales       (188,888)       (833,868)         Interdepartmental       (185,429)       (833,868)         Rental       (162,832)       (142,232)         Interest       (162,832)       (290,693)         Cost Allocation       (105,000)       (2,114,225)         Asset Sales       (105,000)       (2,114,225)         Operating Reserve Increase (Decrease)       (20,603)       (290,694)         Cic       (20,003)       (2,114,225)         Operating Reserve Increase (Decrease)       (2,250,661)       (8,488,787)         Operating Reserve Increase (Decrease)       (2,250,661) <td< td=""><td></td><td>littleilleitei ONC Water COst (3 iligu) Intorfund Trancforc</td><td>0 1 1 1 F 1 F A</td><td></td><td>1 1 1 1 1 1 1 1</td></td<>		littleilleitei ONC Water COst (3 iligu) Intorfund Trancforc	0 1 1 1 F 1 F A		1 1 1 1 1 1 1 1
Proposed Debt Service     503,082       Capital Improvement Program     14,673,888     503,082       Total Revenue Requirement     14,673,888     503,082       Total Revenue Requirement Adjustments     14,673,888     503,082       Revenue Requirement Adjustments     14,673,888     24,826,903       Proposed Bonds and Loans     (340,497)     (5,250,000)       Proposed Bonds and Loans     (138,488)     (133,429)       Reter Sales     (188,888)     (135,429)       Interdepartmental     (165,429)     (360,545)       Interest     (162,832)     (20,903)       Cost Allocation     (129,093)     (105,000)       Asset Sales     (105,000)     (2,114,225)       Other     (129,033)     (20,661)       Other     (129,033)     (20,661)       Other     (2,250,661)     (29,694)       Other<	ſ	Evicting Lansleis	т, 140, L04	E 40E 771	т, 140, 104 Г ЛОГ 771
Proposed Debt Service503,082Capital Improvement Program14,673,88854,835,050Total Revenue Requirement Adjustments14,673,88824,826,903Proposed Bonds and Loans14,673,88824,826,900Proposed Bonds and Loans(5,250,000)(5,250,000)Proposed Bonds and Loans(340,497)(5,250,000)Pronatties(340,497)(833,868)Interdepartmental(188,888)(188,888)Interdepartmental(188,429)(185,429)Rental(185,429)(185,322)Interest(105,000)(2,114,225)Other </td <td>7</td> <td></td> <td></td> <td>T//(C0+/C</td> <td>T//'C0+'C</td>	7			T//(C0+/C	T//'C0+'C
Capital Improvement Program       18,838,050         Total Revenue Requirement       14,673,888       24,826,903         Total Revenue Requirement Adjustments       14,673,888       24,826,903         Proposed Bonds and Loans       14,673,888       24,826,903         Proposed Bonds and Loans       (5,250,000)       (5,250,000)         Proposed Bonds and Loans       (188,888)       (833,868)         Proposed Bonds and Loans       (340,497)       (833,868)         Proposed Bonds and Loans       (386,545)       (833,868)         Interest       (165,832)       (162,832)       (162,832)         Interest       (165,903)       (105,000)       (2,114,225)         Other       (105,000)       (2,014,225)       (290,694)         CIC       (200,93)       (200,601)       (2,114,225)         Operating Reserve Increase (Decrease)       (2,05,661)       (8,488,787)         Operating Reserve Increase (Decrease)       (2,250,661)       (8,488,787)         Operating Reserve Increase (Decrease)       (2,250,661)       (8,488,787) </td <td>m</td> <td>Proposed Debt Service</td> <td></td> <td>503,082</td> <td>503,082</td>	m	Proposed Debt Service		503,082	503,082
Total Revenue Requirement14,673,88824,826,903Revenue Requirement Adjustments14,673,88824,826,903Proposed Bonds and Loans(5,250,000)(5,250,000)Penalties(340,497)(833,868)Rental(188,888)(185,429)Interdepartmental(185,429)(833,868)Meter Sales(188,888)(185,429)Interdepartmental(185,429)(162,832)Rental(162,832)(778,377)Asset Sales(129,093)(178,377)Other(129,093)(105,000)Other(105,000)(2,114,225)Other(105,000)(2,114,225)Other(105,000)(2,114,225)Other(105,000)(2,114,225)Other(105,000)(2,114,225)Other(105,000)(2,114,225)Other(129,093)(105,000)Other(129,093)(206,694)Other(120,003)(2,114,225)Operating Reserve Increase (Decrease)(2,250,661)Other(2,250,661)(8,488,787)Subtotal12,423,22816,338,116Meterson12,423,22816,338,116	4	Capital Improvement Program		18,838,050	18,838,050
Revenue Requirement Adjustments(5,250,000)Proposed Bonds and Loans(5,250,000)Penalties(340,497)Connection Fees(188,888)Meter Sales(188,888)Interdepartmental(188,429)Rental(185,429)Interdepartmental(162,832)Rental(162,832)Interest(778,377)Cost Allocation(778,377)Asset Sales(105,000)Other(105,000)Cost Allocation(129,093)Other(290,693)Other(290,693)Other(2,114,225)Other(105,000)Other(129,093)Other(129,093)Other(129,093)Other(129,093)Other(129,093)Other(129,093)Other(136,400)Subtotal(2,250,661)Subtotal(2,250,661)Subtotal(2,23,228)Other(2,423,228)Subtotal(2,338,116)Other(2,423,228)Other(2,338,116)Other(12,423,228)Other(12,423,228)Other(12,423,228)Other(12,423,228)Other(12,423,228)Other(12,423,228)Other(12,423,228)Other(12,423,228)Other(12,423,228)Other(12,423,228)Other(12,423,228)Other(12,423,228)Other(12,423,228) <tr< td=""><td>ß</td><td>Total Revenue Requirement</td><td>14,673,888</td><td>24,826,903</td><td>39,500,791</td></tr<>	ß	Total Revenue Requirement	14,673,888	24,826,903	39,500,791
Proposed Bonds and Loans       (5,250,000)         Penalties       (340,497)         Penalties       (340,497)         Connection Fees       (340,497)         Connection Fees       (383,888)         Meter Sales       (188,888)         Interdepartmental       (188,888)         Meter Sales       (188,888)         Interdepartmental       (185,429)         Rental       (162,832)         Interest       (162,832)         Cost Allocation       (778,377)         Asset Sales       (105,000)         Other       (105,000)         ClC       (105,000)         Other       (105,000)         ClC       (2,114,225)         Operating Reserve Increase (Decrease)       (2,000)         ClC       (2,250,661)       (290,694)         Operating Reserve Increase (Decrease)       (2,250,661)       (8,488,787)         Subtotal       12,423,228       16,338,116		Revenue Requirement Adjustments			
Penalties       (340,497)         Connection Fees       (340,497)         Keter Sales       (188,888)         Interdepartmental       (188,429)         Rental       (185,429)         Rental       (162,832)         Interest       (162,832)         Cost Allocation       (778,377)         Asset Sales       (105,003)         Other       (105,000)         CIC       (105,000)         Other       (2,114,225)         Other       (2,000)         Other       (105,000)         CIC       (2,114,225)         Operating Reserve Increase (Decrease)       (2,250,661)         Interest       (2,250,661)       (8,48,787)         Subtotal       12,423,228       16,338,116		Proposed Bonds and Loans		(5,250,000)	(2,250,000)
Connection Fees     (833,868)       Meter Sales     (188,888)       Meter Sales     (185,429)       Interdepartmental     (185,429)       Rental     (185,429)       Rental     (162,832)       Interest     (162,832)       Cost Allocation     (778,377)       Asset Sales     (129,093)       Other     (129,093)       Other     (105,000)       ClC     (2,114,225)       Operating Reserve Increase (Decrease)     (2,0061)       Operating Reserve Increase (Decrease)     (2,250,661)       Interest     (2,250,661)       Subtotal     (2,253)       Interest     (2,250,661)       Interest     (2,250,661)       Interest     (12,333,116)	9	Penalties	(340,497)		(340,497)
Meter Sales     (188,888)       Interdepartmental     (185,429)       Rental     (185,429)       Rental     (360,545)       Interest     (360,545)       Interest     (162,832)       Cost Allocation     (778,377)       Asset Sales     (105,003)       Other     (105,000)       CIC     (105,000)       Other     (2,114,225)       Operating Reserve Increase (Decrease)     (2,114,225)       Interest     (2,250,661)       Operating Reserve Increase (Decrease)     (2,250,661)       Interest     (2,23,228)       Interest     (2,338,116)	7	Connection Fees		(833,868)	(833,868)
Interdepartmental       (185,429)         Rental       (360,545)         Rental       (360,545)         Interest       (162,832)         Cost Allocation       (778,377)         Asset Sales       (129,093)         Other       (105,000)         Other       (105,000)         CIC       (20,694)         Operating Reserve Increase (Decrease)       (2,114,225)         Total Adjustments       (2,250,661)       (8,488,787)         Subtotal       12,423,228       16,338,116	8	Meter Sales	(188, 888)		(188,888)
Rental       (360,545)         Interest       (162,832)         Cost Allocation       (778,377)         Asset Sales       (129,093)         Other       (129,093)         Other       (129,093)         Other       (129,093)         Other       (129,093)         Other       (129,093)         Other       (105,000)         CIC       (2,114,225)         Operating Reserve Increase (Decrease)       (2,250,661)         Cotal Adjustments       (2,250,661)         Subtotal       (2,23,228)         Motodal       (2,433,228)	6	Interdepartmental	(185,429)		(185,429)
Interest       (162,832)         Cost Allocation       (778,377)         Asset Sales       (129,093)         Asset Sales       (105,000)         Other       (105,000)         CIC       (2,114,225)         Operating Reserve Increase (Decrease)       (290,694)         Total Adjustments       (2,250,661)       (8,488,787)         Subtotal       12,423,228       16,338,116	10	Rental	(360,545)		(360,545)
Cost Allocation       (778,377)         Asset Sales       (129,093)         Asset Sales       (105,000)         Other       (105,000)         CIC       (2,114,225)         CIC       (2,250,661)         Adjustments       (2,250,661)         Subtotal       (2,250,661)       (8,488,787)	11	Interest	(162,832)		(162,832)
Asset Sales       (129,093)         Other       (105,000)         CIC       (2,114,225)         CIC       (2,114,225)         Operating Reserve Increase (Decrease)       (2,114,225)         Total Adjustments       (2,250,661)       (8,488,787)         Subtotal       12,423,228       16,338,116	12	Cost Allocation	(778,377)		(778,377)
Other     (105,000)       CIC     (2,114,225)       CIC     (290,694)       Operating Reserve Increase (Decrease)     (290,694)       Total Adjustments     (2,250,661)     (8,488,787)       Subtotal     12,423,228     16,338,116	13	Asset Sales	(129,093)		(129,093)
CIC       (2,114,225)         Operating Reserve Increase (Decrease)       (290,694)         Total Adjustments       (2,250,661)       (8,488,787)         Subtotal       12,423,228       16,338,116	14	Other	(105,000)		(105,000)
Operating Reserve Increase (Decrease)         (290,694)           Total Adjustments         (2,250,661)         (8,488,787)           Subtotal         12,423,228         16,338,116	15	CIC		(2,114,225)	(2,114,225)
Total Adjustments         (2,250,661)         (8,488,787)           Subtotal         12,423,228         16,338,116	16	Operating Reserve Increase (Decrease)		(290,694)	(290,694)
Subtotal 12,423,228 16,338,116	17	Total Adjustments	(2,250,661)	(8,488,787)	(10,739,448)
	18	Subtotal	12,423,228	16,338,116	28,761,343
	ç	Mot Dourse Douring the		I	CVC 132 0C

**Customer Related** Volume City of Norman, OK - Norman Utilities Authority (NUA) Water Utility Allocation of Water System Assets And Annual Capital Costs

Line No. Description Water System Asse U LAND 2 SOURCE OF SUPPLY 3 RAW WATER LINES 4 WTP 5 WTP	ы	Replacement	Baco	Maximum Dav Demand	Maximum Hour Demand	Meters &		Distribution	Fire	1	
	u		Baco	Dav Demand	Hour Demand	•				to dian at	
Water Sys Water Sys LAND 2 SOURCE O 3 RAW WAT 4 WELLS 5 WTP		Cost New	6000			Services	Billing	Mains	Protection	Indirect	Total
Water Sys Uater Sys LAND 2 SOURCE O 3 RAW WAT 4 WELLS 5 WTP											
Water Sys 1 LAND 2 SOURCE O 3 RAW WAT 4 WELLS 5 WTP											
<ol> <li>LAND</li> <li>SOURCE O</li> <li>SOURCE O</li> <li>RAW WAT</li> <li>RAW WAT</li> <li>MELLS</li> <li>WTP</li> </ol>	Water System Assets										
<ul><li>2 SOURCE O</li><li>3 RAW WAT</li><li>4 WELLS</li><li>5 WTP</li></ul>		0	100.0%								100.0
<ul><li>3 RAW WAT</li><li>4 WELLS</li><li>5 WTP</li></ul>	SOURCE OF SUPPLY	220,328	100.0%								100.0%
4 WELLS 5 WTP	TER LINES	356,292	100.0%								100.0
5 WTP		15,723,770	59.0%	41.0%							100.
		56,047,472	59.0%	41.0%							100.
6 STORAGE		8,422,711	39.3%	27.3%	33.3%						100.
7 TRANSMISSION	SSION	41,895,651	59.0%	41.0%							100.
8 DISTRIBUTION	TION	69,596,563	39.3%	27.3%	33.3%			%0.0			100.
9 PUMPING		0	39.3%	27.3%	33.3%						100.
10 METERS		0				100.0%					100.
11 HYDRANTS	S	6,604		50.0%	50.0%						100.
12 VEHICLES		1,309,219								100.0%	100.
13 EQUIPMENT	NT.	6,385,996								100.0%	100.
14 BUILDING	BUILDINGS/EQUIPMENT	6,756								100.0%	
		]									
15		199,971,363									

City of Norman, OK - Norman Utilities Authority (NUA)	Water Utility	
f No	Ę	
City o	Wate	

Allocation of Water System Assets And Annual Capital Costs

And Ann	And Annual Capital Costs										
				Volume			Custome	<b>Customer Related</b>			
Line. No.	Description	Original Cost	Base	Maximum Dav Demand	Maximum Hour Demand	Meters & Services	Billing	Capital Imp. Fee (CIC)	Fire Protection	Indirect	Total
							0				
	Water System Assets										
1	LAND	•				•	•				
2	SOURCE OF SUPPLY	220,328	220,328	,				ı	,	I	220,328
æ	RAW WATER LINES	356,292	356,292						'		356,292
4	WELLS	15,723,770	9,274,746	6,449,025		•	•				15,723,770
S	WTP	56,047,472	33,059,886	22,987,587				ı	,	I	56,047,472
9	STORAGE	8,422,711	3,312,119	2,303,022	2,807,570				'	·	8,422,711
7	TRANSMISSION	41,895,651	24,712,362	17,183,289		•	•				41,895,651
8	DISTRIBUTION	69,596,563	27,367,924	19,029,785	23,198,854			ı		I	69,596,563
6	PUMPING		,		'	,	,		,	ı	
10	METERS	•				•					
11	HYDRANTS	6,604	'	3,302	3,302	•	•		'	I	6,604
12	VEHICLES	1,309,219							,	1,309,219	1,309,219
13	EQUIPMENT	6,385,996	,			,		1		6,385,996	6,385,996
14	Total Water System Assets	199,964,607	98,303,656	61,956,009	26,009,727	0	0	0	0	7,695,215	199,964,607
15	Percent of Total		49.2%	34.0%	13.0%	0.0%	0.0%	0.0%	0.0%	3.8%	
16 17	Reallocation of Indirect Reallocation of Indirect	7,695,215	51.1% 3,934,416	35.3% 2,719,809	13.5% 1,040,990	0.0% 0	0.0% 0	0.0% 0	0.0% 0		

**0** 0.0%

**0** 0.0%

**0** 0.0%

0.0%

**27,050,716** 13.5%

**70,675,818** 35.3%

**102,238,072** 51.1%

199,964,607

Reallocated System Assets Reallocated System Assets

18 19 0

0

0

0

2,210,180

5,774,570

8,353,365

16,338,116

Test Year Net Annual Capital Capital Cc

20

Norman Utilities Authority (NUA)	
City of Norman, OK - No	<b>Nater Utility</b>

Allocation of Non-Rate Revenue and O&M Expenses

				Volume			Customer Related	r Related			
Line		J		Maximum	Maximum	Meters &		Capital	Fire		
No.	Description	Total	Base	Day Demand	Hour Demand	Services	Billing	Imp. Fee (CIC)	Protection	Indirect	Total
		L									
	Operation and Maintenance Expense	nce Expense									ĺ
1	LAND	0	100.0%								100.0%
2	SOURCE OF SUPPLY	772,406	100.0%								100.0%
æ	RAW WATER LINES	0	100.0%								100.0%
4	WELLS	919,302	59.0%	41.0%							100.0%
ŝ	Water Treatment Plant	5,369,403	59.0%	41.0%							100.0%
9	Treated Storage	0	39.3%	27.3%	%E'EE			0.0%			100.0%
7	Transmission Mains	2,824,181	59.0%	41.0%			100.0%				200.0%
œ	Distribution Mains	686,939	39.3%	27.3%	33.3%						100.0%
6	Treated Pumping	0	39.3%	27.3%	33.3%						100.0%
10	Meters and Services	1,000,127				100.0%					100.0%
11	HYDRANTS	1,239			50.0%	50.0%					100.0%
12	VEHICLES	84,852								100.0%	100.0%
13	EQUIPMENT	349,308								100.0%	100.0%
14	<b>BUILDINGS/EQUIPMENT</b>	8,139								100.0%	100.0%
15	BILLING	843,174					100.0%				100.0%
16	Infrastructure Indirect	46,931								100.0%	100.0%
17	All Other Indirect	1,767,887								100.0%	100.0%
6	Toto Toto Monte Contraction	000 CL3 V1									
21	lotal water U&IVI	14,b/3,888									

				Volume			Custome	Customer Related			
Line No.	Description	Total	Base	Maximum Day Demand	Maximum Hour Demand	Meters & Services	Billing	Capital Imp. Fee (CIC)	Fire Protection	Indirect	Total
	O&M Expense										
-	LAND				•	•	•	•	•	•	'
2	SOURCE OF SUPPLY	772,406	772,406	1	'	,	'	'	'	'	772,406
ŝ	RAW WATER LINES	ı	ı				'	'			
4	WELLS	919,302	542,255	377,047							919,302
S	Water Treatment Plant	5,369,403	3,167,170	2,202,234							5,369,403
9	Treated Storage	·	'				•	•	•	•	
7	Transmission Mains	2,824,181	1,665,857	1,158,323	•	•	2,824,181	'	•		5,648,361
8	Distribution Mains	686,939	270,130	187,830	228,980		'	'	'		686,939
6	Treated Pumping	ı	ı				'				'
10	Meters and Services	1,000,127	,			1,000,127					1,000,127
11	HYDRANTS	1,239			620	620		•	•		1,239
12	VEHICLES	84,852					'			84,852	84,852
13	EQUIPMENT	349,308	'	1	ı		'		'	349,308	349,308
14	<b>BUILDINGS/EQUIPMENT</b>	8,139									
15	BILLING	843,174									
16	Infrastructure Indirect	46,931									
17	All Other Indirect	1,767,887									
18	Total O&M Expense	14,673,888	6,417,817	3,925,434	229,599	1,000,747	2,824,181	0	0	434,160	14,831,938
19	Percent of Total		43.3%	26.5%	1.5%	6.7%	19.0%	0.0%	0.0%	2.9%	
20	Reallocation of Indirect		44.6%	27.3%	1.6%	7.0%	19.6%	0.0%	0.0%		
22	Reallocated O&M Exper	14,831,938	6,611,345	4,043,804	236,523	1,030,924	2,909,343	ı			
23	Reallocated O&M Expen:	100.0%	44.6%	27.3%	1.6%	7.0%	19.6%	0.0%	0.0%		
24	Test Year Net O&M	12.423.228	5.537.661	3.387,089	198.111	863.502	2.436.865				

City of Norman, OK - Norman Utilities Authority (NUA) Water Utility Allocation of Non-Rate Revenue and O&M Expenses

City of Norma Water Utility Units of Servi	City of Norman, OK - Norman Utilities Authority (NUA) Water Utility Units of Service	es Authority (N	(A)							Table A-9
		Wat	Water Use	Maxii	Maximum Day Demand		Maxir	Maximum Hour Demand	q	
Line No.	Customer Class	Annal	Average Day	Demand Factor	Total Demand	Extra Demand	Demand Factor	Total Demand	Extra Demand	Bills
		1,000 gal	1,000 gal/day		gpd	gpd		gpd	gpd	
1	Residential	3,328,869	9,120	217%	19,825	10,705	326%	29,737	9,912	607,691
2	Commercial	839,567	2,300	226%	5,203	2,903	339%	7,805	2,602	41,759
£	Irrigation	217,774	597	373%	2,225	1,629	559%	3,338	1,113	12,765
4	OU	15,000	41	223%	92	50	334%	137	46	576
ъ	Total	4,401,211	12,058		27,345	15,287		41,017	13,672	662,791

		<u></u>		Volume		Customer Related	telated
Line No.	Description	Total	Base	Maximum Day Demand	Maximum Hour Demand	Meters & Services	Billing
-	Cost of Service	8CC 5CV CT	5 537 661	080 785 5	100	862 EN7	7 136 865
7 7	Operation and Maintena Capital Cost	16,338,116	8,353,365 8	5,774,570	2,210,180	200'000	0
m		28,761,343	13,891,026	9,161,660	2,408,291	863,502	2,436,865
4	Allocation of Revenue Re	100%	48%	32%	8%	3%	8%
	Units of Service					Equivalent	
	Units		<u>1,000 gal</u>	gpd	gpd	Cost	<u># Bills</u>
	Units of Service						
ß	Residential		3,328,869	10,705	9,912	607,691	607,691
9	Commercial		839,567	2,903	2,602	41,759	41,759
7	Irrigation		217,774	1,629	1,113	12,765	12,765
∞	OU	100.0%	15,000	50	46	576	576
6	Total Units of Service	I	4,401,211	15,287	13,672	662,791	662,791
	Unit Costs of Service						
10	Residential		\$3.16	<b>\$599.32</b>	\$176.14	\$1.30	<b>\$3.68</b>
11	Commercial		\$3.16	<b>\$599.32</b>	\$176.14	\$1.30	<b>\$3.68</b>
12	Irrigation		\$3.16	<b>\$599.32</b>	\$176.14	\$1.30	<b>\$3.68</b>
10	ļ		_				

Description         Total         Base         Maximum         Maximum <th< th=""><th></th><th></th><th></th><th></th><th>Volume</th><th></th><th><b>Customer Related</b></th><th>Related</th></th<>					Volume		<b>Customer Related</b>	Related
Unit Costs of Service - \$/unit       \$3.16       \$559-32       \$176.14         Residential       \$3.16       \$599.32       \$176.14         Commercia       \$3.16       \$599.32       \$176.14         Irrigation       \$3.16       \$599.32       \$176.14         Commercia       \$3.16       \$599.32       \$176.14         Irrigation       \$3.16       \$599.32       \$176.14         OU       \$3.16       \$599.32       \$176.14         Units       \$3.16       \$599.32       \$176.14         Units       \$3.328.869       \$10.705       \$9912       6         Units       3,328.869       \$10.705       \$9912       6         Cost of Service - \$       \$21,694,058       \$10,506,520       \$6,415,542       \$1,745,999       \$7         Units       333,567       2,903       2,602       \$2,602       \$6,415,542       \$1,113       \$2,602         Units       Units       \$2,649,829       \$1,739,725       \$458,235       \$2       \$2         Cost of Service - \$       \$51,933,023       \$687,335       \$547,343       \$195,991       \$2         Units       Units       Units       \$1,739,725       \$47,343       \$30,258       \$8,066	Line No.	Description	Total	Base	Maximum Day Demand	Maximum Hour Demand	Meters & Services	Billing
Residential         53.16         5599.32         \$176.14           Commercia         \$3.16         \$599.32         \$176.14           Irrigation         \$3.16         \$599.32         \$176.14           Cummercia         \$3.16         \$599.32         \$176.14           Irrigation         \$3.16         \$599.32         \$176.14           OU         \$3.16         \$599.32         \$176.14           Irrigation         \$3.16         \$599.32         \$176.14           Units         \$3.367         \$10,705         9912         6           Units         \$10,705         \$10,705         9,912         6           Units         \$3.328,869         10,705         9,912         6           Units         \$31,67         \$10,705         \$1,745,999         \$7           Units         \$31,7374         \$1,629         \$1,113         \$687,335         \$687,335         \$687,335         \$687,335         \$687,335         \$667,134         \$1165,991         \$7           Units         Units         \$1,629         \$1,739,725         \$458,235         \$7,602         \$6,415,41         \$1165,991         \$7           Units         Units         \$1,739,725         \$47,343		Unit Costs of Service - Sv	/unit					
Commercia         53.16         5599.32         5176.14           Irrigation         53.16         5599.32         5176.14           OU         \$3.16         \$599.32         \$176.14           Customer Class         \$3.16         \$599.32         \$176.14           Customer Class         \$3.16         \$599.32         \$176.14           Residential         \$3.369         \$10,705         9,912         6           Units         3,328,869         \$10,705         9,912         6           Units         3,328,869         \$10,705         9,912         6           Units         \$3,328,869         \$10,705         9,912         6           Units         \$335,567         \$2,903         \$2,602         \$5           Cost of Service - \$         \$5,055,728         \$2,649,829         \$1,739,725         \$458,235         \$           Units         Units         \$1,739,725         \$47,343         \$30,258         \$\$,066         \$           Units         Units         \$1,739,725         \$47,343         \$30,258         \$         \$           Units         Units         \$1,933,023         \$\$         \$         \$         \$         \$ <td< td=""><td>Ч</td><td>Residential</td><td></td><td>\$3.16</td><td>\$599.32</td><td>\$176.14</td><td>\$1.30</td><td>\$3.68</td></td<>	Ч	Residential		\$3.16	\$599.32	\$176.14	\$1.30	\$3.68
Irrigation       \$3.16       \$599.32       \$176.14         OU       \$3.16       \$599.32       \$176.14         Customer Class       \$3.16       \$599.32       \$176.14         Customer Class       \$3.16       \$599.32       \$176.14         Residential       Units       3,328,869       10,705       9,912       6         Units       3,328,869       10,705       9,912       6       5,055,728       \$1,739,725       \$1,745,999       \$7         Units       Units       3,328,69       10,705       \$912       6       7       \$1,113       \$1       \$1,23,999       \$7       \$1,739,725       \$458,235       \$1,714       \$1,629       \$1,113       \$1,050       \$1,113       \$1,050       \$1,113       \$1,050       \$1,739,725       \$458,235       \$458,235       \$458,335       \$2,602       \$6,134       \$1,955,991       \$5       \$1,113       \$1,050       \$1,113       \$1,050       \$1,113       \$1,050       \$1,113       \$1,050       \$1,113       \$1,050       \$1,113       \$1,050       \$1,713       \$1,050       \$1,113       \$1,050       \$1,010       \$1,010       \$1,000       \$1,000       \$1,000       \$1,000       \$1,010       \$1,010       \$1,010       \$1,010 </td <td>2</td> <td>Commercia</td> <td></td> <td>\$3.16</td> <td>\$599.32</td> <td>\$176.14</td> <td>\$1.30</td> <td>\$3.68</td>	2	Commercia		\$3.16	\$599.32	\$176.14	\$1.30	\$3.68
OU     \$3.16     \$599.32     \$176.14       Customer Class     \$3.16     \$599.32     \$176.14       Residential     3,328,869     10,705     9,912     6       Units     3,328,869     10,705     9,912     6       Cost of Service - \$     \$21,694,058     \$10,506,520     \$6,415,542     \$1,745,999     \$7       Units     3,328,869     10,705     \$9,912     6     \$1,739,725     \$458,235     \$1,745,999       Units     839,567     2,903     2,602     \$5,1,739,725     \$458,235     \$1,113       Units     Units     217,774     1,629     1,113     \$687,335     \$976,134     \$195,991     \$5       Units     Cost of Service - \$     \$1,923,023     \$687,335     \$976,134     \$195,991     \$5       Units     Units     217,774     1,629     1,113       Cost of Service - \$     \$1,923,023     \$687,335     \$976,134     \$195,991     \$5       OU     Units     15,000     50     \$687,335     \$976,134     \$195,991     \$6       Cost of Service - \$     \$19,23,023     \$687,335     \$976,134     \$195,991     \$6     \$6       U     Units     Cost of Service - \$     \$1923,023     \$677,343     \$30,258	m	Irrigation		<b>\$3.16</b>	\$599.32	\$176.14	\$1.30	\$3.68
Customer Class       Residential       3,328,869       10,705       9,912       6         Units       3,328,869       10,705       9,912       6         Units       3,328,869       10,705       9,912       6         Units       Cost of Service - \$       \$21,694,058       \$10,506,520       \$6,415,542       \$1,745,999       \$7         Units       Cost of Service - \$       \$5,055,728       \$2,649,829       \$1,739,725       \$458,235       \$         Units       Units       2,1923,023       \$687,335       \$976,134       \$1,113       \$         Units       Units       217,774       1,629       1,113       \$         Cost of Service - \$       \$1,923,023       \$687,335       \$976,134       \$195,991       \$         OU       Units       1,629       1,113       \$       \$       1,113       \$         Cost of Service - \$       \$1,923,023       \$687,335       \$976,134       \$195,991       \$       \$         OU       Units       0       0       0       0       0       0       0         Units       Cost of Service - \$       \$60       \$0       \$       \$       \$       \$       \$       \$	4	OU		\$3.16	\$599.32	\$176.14	\$1.30	\$3.68
Residential Units 3,328,869 10,705 9,912 6 Cost of Service - \$ \$21,694,058 \$10,506,520 \$6,415,542 \$1,745,999 \$7 Commercial Units Units 839,567 2,903 2,602 \$ Cost of Service - \$ \$5,055,728 \$2,649,829 \$1,739,725 \$458,235 \$458,235 \$ Irrigation Units 217,774 1,629 1,113 \$ Cost of Service - \$ \$1,923,023 \$687,335 \$976,134 \$195,991 \$ Units Cost of Service - \$ \$1,923,023 \$687,335 \$976,134 \$195,991 \$ OU Units Cost of Service - \$ \$1,923,023 \$687,335 \$976,134 \$195,991 \$ Units Cost of Service - \$ \$1,923,023 \$687,335 \$976,134 \$195,991 \$ Cost of Service - \$ \$1,923,023 \$687,335 \$976,134 \$195,991 \$ Units Cost of Service - \$ \$88,535 \$47,343 \$30,258 \$8,066 \$ Irrigation In Town Units Cost of Service - \$ \$0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		Customer Class						
Units       3,328,869       10,705       9,912       6         Cost of Service - \$\$       \$21,694,058       \$10,506,520       \$6,415,542       \$1,745,999       \$7         Commercial       Units       839,567       2,903       2,602       \$7         Units       Store of Service - \$\$       \$5,055,728       \$2,649,829       \$1,739,725       \$458,235       \$         Units       Units       2,033       \$5,055,728       \$2,649,829       \$1,739,725       \$458,235       \$         Units       Units       2,033       \$687,335       \$976,134       \$1,113       \$         OU       Units       1,629       1,1113       \$       \$       00       0		Residential						
Cost of Service - \$\$       \$21,694,058       \$10,506,520       \$6,415,542       \$1,745,999       \$7         Commercial       Units       839,567       2,903       2,602       \$5         Units       839,567       2,903       2,602       \$5       \$5         Cost of Service - \$\$       \$5,055,728       \$2,649,829       \$1,739,725       \$458,235       \$5         Irrigation       Units       217,774       1,629       1,113       \$         Units       217,774       1,629       1,113       \$         OU       Units       217,774       1,629       1,113       \$         OU       Units       15,000       50       \$41,343       \$30,258       \$8,066         Irrigation In Town       0       0       0       0       0       0         Units       0       0       0       0       0       0       0       0         Cost of Service - \$       \$88,535       \$47,343       \$30,258       \$8,066       \$1113       \$105,991       \$5         Irrigation In Town       Units       0       0       0       0       0       0       0       0       0       0       0       0       <	ъ	Units		3,328,869	10,705	9,912	607,691	607,691
Commercial       839,567       2,903       2,602       \$         Units       839,567       2,903       2,602       \$         Units       839,567       2,903       2,602       \$         Cost of Service - \$       \$5,055,728       \$2,649,829       \$1,739,725       \$458,235       \$         Irrigation       Units       217,774       1,629       1,113       \$         Units       200       15,000       50       46         Units       15,000       50       46         Ou       Units       15,000       50       46         Cost of Service - \$       \$88,533       \$47,343       \$30,258       \$8,066         Irrigation In Town       0       0       0       0       0         Units       0       50       \$0       \$0       \$       \$         Units       0       0       0       0       0       0       0       0         Units       0	9	Cost of Service - \$	\$21,694,058	\$10,506,520	\$6,415,542	\$1,745,999	\$791,716	\$2,234,281
Units       839,567       2,903       2,602         Cost of Service - \$       \$5,055,728       \$2,649,829       \$1,739,725       \$458,235       \$         Irrigation       Units       217,774       1,629       1,113       \$         Units       217,774       1,629       1,113       \$         Cost of Service - \$       \$1,923,023       \$687,335       \$976,134       \$195,991       \$         Units       1       1,629       1,113       \$       \$         OU       Units       15,000       50       46         Cost of Service - \$       \$88,535       \$47,343       \$30,258       \$8,066         Irrigation In Town       Units       0       0       0       0         Units       0       0       0       0       0       0         Units       0       \$0       \$0       \$0       \$0       \$0         Units       0       0       0       0       0       0       0       0         Cost of Service - \$       \$0       \$0       \$0       \$0       \$0       \$0       \$0       \$0         Use of Service - \$       \$0       \$0       \$0       \$0		Commercial						
Cost of Service - \$       \$5,055,728       \$2,649,829       \$1,739,725       \$458,235       \$5,4         Irrigation       Units       217,774       1,629       1,113       12         Units       217,774       1,629       1,113       12         Units       215,000       5687,335       \$976,134       \$195,991       \$16         Units       15,000       50       46       \$16       \$16         Units       15,000       50       46       \$16       \$16         Units       15,000       50       46       \$16       \$16       \$16         Units       0       15,000       50       \$30,258       \$8,066       \$16       \$16         Units       0 </td <td>7</td> <td>Units</td> <td></td> <td>839,567</td> <td>2,903</td> <td>2,602</td> <td>41,759</td> <td>41,759</td>	7	Units		839,567	2,903	2,602	41,759	41,759
Irrigation $217,774$ $1,629$ $1,113$ $12,$ Units $0$ cost of Service - \$\$1,923,023\$687,335\$976,134\$195,991\$16,Cost of Service - \$\$1,923,023\$687,335\$976,134\$195,991\$16,OU $0$ $15,000$ $50$ $46$ \$Units $15,000$ $50$ $46$ \$OU $0$ $50$ $46$ \$Units $0$ $0$ $0$ $0$ Units $0$ $0$ $0$ $0$ Cost of Service - \$ $$0$ $$0$ $$0$ Units $0$ $0$ $0$ $0$ Cost of Service - \$ $$0$ $$0$ $$0$	∞	Cost of Service - \$	\$5,055,728	\$2,649,829	\$1,739,725	\$458,235	\$54,405	\$153,535
Units $217,774$ $1,629$ $1,113$ $12,$ Cost of Service - \$\$\$1,923,023\$687,335\$976,134\$195,991\$16,OUUnits $15,000$ $50$ $46$ \$16,OUUnits $15,000$ $50$ $46$ \$16,Units $15,000$ $50$ $46$ \$16,Cost of Service - \$\$88,535\$47,343\$30,258\$8,066\$16,Irrigation In TownUnits00000Units0000000Cost of Service - \$\$0\$0\$0\$0\$0Irrigation Out of TownUnits00000Units0\$0\$0\$0\$0\$0Cost of Service - \$\$0\$0\$0\$0\$0Cost of Service - \$\$0\$0\$0\$0\$0Cost of Service - \$\$0\$0\$0\$0\$0Cost of Service - \$\$0\$0\$0\$0\$0		Irrigation						
Cost of Service - \$       \$1,923,023       \$687,335       \$976,134       \$195,991       \$16,         OU       Units       15,000       50       46       \$         U Units       15,000       50       46       \$         Cost of Service - \$       \$88,535       \$47,343       \$30,258       \$8,066       \$         Irrigation In Town       Units       0       0       0       0       0       0         Units       0       \$       \$30,258       \$8,066       \$       \$       \$       \$         Irrigation In Town       Units       0	6	Units		217,774	1,629	1,113	12,765	12,765
OU Units 15,000 50 46 Cost of Service - \$\$88,535 \$47,343 \$30,258 \$8,066 \$ Irrigation In Town Units 0 0 0 0 0 Cost of Service - \$\$0 \$0 \$0 \$0 0 Irrigation Out of Town Units 0 6 \$0 \$0 \$0 \$0 0	10		\$1,923,023	\$687,335	\$976,134	\$195,991	\$16,630	\$46,931
Units       15,000       50       46         Cost of Service - \$       \$88,535       \$47,343       \$30,258       \$8,066       \$         Irrigation In Town       0       0       0       0       0       0         Units       0       50       \$0       \$0       0       0       0       0         Units       0       \$0       \$0       \$0       \$0       \$0       \$0       \$0         Irrigation Out of Town       Units       0		OU						
Cost of Service - \$       \$88,535       \$47,343       \$30,258       \$8,066         Irrigation In Town       0       0       0       0         Units       0       6       0       0       0         Cost of Service - \$       \$0       \$0       \$0       \$0       \$0         Irrigation Out of Town       0       0       0       0       0       0         Units       0       \$0       \$0       \$0       \$0       \$0       \$0         Cost of Service - \$       \$0       \$0       \$0       \$0       \$0       \$0       \$0	11	Units		15,000	50	46	576	576
Irrigation In Town Units 0 0 0 0 Cost of Service - \$ \$0 \$0 \$0 \$0 Irrigation Out of Town Units 0 0 0 Cost of Service - \$ \$0 \$0 \$0 \$0 \$0	12	Cost of Service - \$	\$88,535	\$47,343	\$30,258	\$8 <b>,</b> 066	\$750	<b>\$2,118</b>
Units       0       0       0       0         Cost of Service - \$       \$0       \$0       \$0       \$0         Irrigation Out of Town       0       \$0       \$0       \$0         Units       0       0       0       0       0         Cost of Service - \$       \$0       \$0       \$0       \$0       \$0		Irrigation In Town						
Cost of Service - \$         \$0 <td></td> <td>Units</td> <td></td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td>		Units		0	0	0	0	0
Irrigation Out of Town Units 0 0 0 Cost of Service - \$ \$0 \$0 \$0 \$0		Cost of Service - \$	¢	\$0	¢Ο	\$ ¢	\$0	¢
Units 0 0 0 0 Cost of Service - \$ \$0 \$0 \$0 \$0		Irrigation Out of Town						
Cost of Service - \$ \$0 \$0 \$0 \$0		Units		0	0	0	0	0
		Cost of Service - \$	\$0	\$0	\$0	¢	\$0	\$0
Total Pact of Convira 578 761 242 612 801 076 60 161 660 67 A08 201	12	Total Cast of Samira	<b>578 761 272</b>	¢13 801 076	¢0 161 660	<b>ΥΠΩ 301</b>	<b>ά</b> 62 ΕΛ <b>3</b>	<b>ç</b> ) 136 865

City of Norman, OK - Norman Utilities Authority (NUA) Water Utility Distribution of Costs to Customer Classes

City of Norman, OK - Norman Utilities Authority (NUA)	Water Utility	Comparison of Cost of Service With Revenues Under Existing Rates
City of <b>N</b>	Water L	Compar

(q) (p)

(c)

Line No.	Customer Class	Cost of Service	Revenue at Current Rates	Indicated Revenue Adjustment
1	Residential	\$21,694,058	\$17,161,329	26.4%
2	Commercial	\$5,144,263	\$3,479,827	47.8%
m	Irrigation	\$1,923,023	\$1,364,462	40.9%
4	Total System	\$28,761,343	\$22,005,618	30.7%
ъ	Res and Irr	\$23,617,080	\$18,525,791	27.5%

Billing Charge Component         \$3,025,997           Total Gustemer Casts         \$3,025,997           Total Gustemer Casts         \$607,691           Total Gustemer Casts         \$53,025,997           Billing Charge Casts         \$54,085           Billing Charge S per Bill         \$54,005           Billing Charge Component         \$55,00           Fixed Charge Component         \$25,751,343           Total Gost Preview         \$25,751,343			Water Utility Alt. 2: Cost of Service with Full Fixed Charge Recovery	ce with Full Fixed	I Charge Recover	۲			Water Utility Alt. 1a: Cost of	Service with P.	Alt. 1a: Cost of Service with Partial Charge Recovery (Middle of the Road)	wery (Middle o	the Road)	
\$3.025,997 607,691 54.08 55.00 25.00			Residential Cost of Service	Service				\$21,694,058	Residential Cost of Service	tt of Service				\$21,694,058
607,611 54.08 55.00 255.00 255,00 255,00 255,00 255,00 255,00 255,0000 255,0000 255,0000 255,0000 255,0000 255,0000 255,0000 255,0000 255,0000 255,0000 255,0000 255,0000 255,0000000000			Meter Size	Bills	Service Charge	FCR	Total SC		Meter Size	Bills	Service Charge	FCR	Total SC	
54.08 55.00 25%			All Billed Units	169	\$5.00	\$5.87	\$10.87		All Billed Units		\$5.00	\$3.70	58.70	
\$5.00 25%			<b>Total Service Charge Revenue</b>	e Revenue			\$6,605,039		Total Service C	arge			\$5,286,910	
25%												1000		
25%			עסונודו אמנה אביירועים אפקעוריבים איז	ine kequirea (10	tal Llass Lost les	ianuavan ve se		STN'SSN'STC	Volume Kate R	tevenue kequir	עסוחדים האנה אפיסטט האפיטער אפקטורים (ו סגמו גומא געסג ופאא אר אפעפוטוב) עסוטדים אניני אפיני אפיני אפיני איני א	averation of Kever	(an	/#T'/N#'0T\$
25%		\$28,761,343	Proposed Volumetric Rates	ic Rates					Proposed Volumetric Rates	metric Rates				
	36 20%	\$5,752,269												
Less: Customer Costs from COS Analysis		(53,300,356)	Block	% Vol	Price Ratio	Volume	Rate	Revenue	Block	% Vol	Price Ratio	Volume	Rate	Revenue
Terrel Bills (Billed Frake) Alt Places		206'TCh'76	0-5	58.7%	801	1,954,396	53.46	\$6,761,198	-2 - 2	28 /28	001	1,954,396	53.76	\$7,351,835
t of Service Charge		\$3.70	5 P	NS:C7	1.50	857,882	05.14	C/T/222/24	دا .د ۵۲ کار	N8.62	1.3U	285/,68	2.2	512,641,P¢
			07-CT	10.70 10 705	RK	COVODT	5070 5051	SOC VOL CO		2007h	22.1	COV'NOT	NE U13	OTH/C/T/TC
			Total	2.1141	3	3,328,869	-	\$15,089,019	Total	AL LINE	3	3,328,869		\$16,407,147
								1						
			City of Norman, OK - Norman Utilities Authority (NUA) Water Infilty	Norman Utilitik	es Authority (NU	(A)		Table A-16	City of Norman Water Utility	n, OK - Norman,	City of Norman, OK - Norman Utilities Authority (NUA) المنفعة الثالالين	(NUA)		Table A-17
			Alt. 2: Cost of Service with Full Fixed Charge Recovery	ce with Full Fixed	Charge Recover	5			Alt. 1a: Cost of	Service with P	Alt. 1a: Cost of Service with Partial Charge Recovery (Middle of the Road)	wery (Middle o	the Road)	
			Commercal Cost of Service	Service				\$5,144,263	Commercal Cost of Service	st of Service				\$5,144,263
			Motor Size	Dille	Sanira Charac	ere	Total SC		Motor Size	Dille	Canira Chara	aus	Total SC	
			All Billed Units	,759	55,00	\$5.87	\$10.87		All Billed Units	41,759	55.00	0Z'ES	\$8.70	
			Total Service Charge Revenue	e Revenue			\$453,883		Total Service C	Total Service Charge Revenue			\$363,305	
			Volume Rate Revenue Required (Total Class Cost less SC Revenue)	tue Required (To	tal Class Cost les	s SC Revenue)		\$4,690,380	Volume Rate R	tevenue Requin	Volume Rate Revenue Required (Total Class Cost less SC Revenue)	st less SC Rever	ue)	\$4,780,958
			Proposed Volumetric Rates	ic Rates					Proposed Volumetric Rates	metric Rates				
			Block	% Vol	Price Ratio	Volume	Rate	Revenue	Block	% Vol	Price Ratio	Volume	Rate	Revenue
			0-AWC		1.0				0-AWC		10			
			>AWC		51				>AWC		51			
			lotal	% Vol CI	% viel DU	CII Vol	OU Vol			% vol cu	% vol ou	CITVAL	Dot Vol	
							806						806	
				65.5%	78.3%	549,923	11,747			65.5%	78.3%	549,923	11,747	
				34.5%	21.7%	289,644	3,253			34.5%	21.7%	289,644	3,253	
						839,567	15,000					839,567	15,000	
						CII rate	OU Rate					CII rate	OU Rate	
					Tier 1	S4.69	54.22	2,630,640			Tier1	54.78	\$4.31	2,681,441
					Total Revenue	tio	+0.04	4.690 380			Total Revenue	01.16	01-06	110'660'7
					Check			OK			Check			XO

City of Norman, OK - Norman Utilities Authority (NUA) **Rate Structure Alternatives** Water Utility

		Current	Alt 1 Across the	Alt. 1a Middle of	Alt. 2 Fixed Charge
De	Description	kates	board	the Koad	kecovery
RESIDENTIAL					
Base Fee,\$ per Bill	I	\$6.00	\$7.70	\$8.70	\$10.90
CIC, \$ per Bill		1.50	1.50	1.50	1.50
Volume Rates, \$	Volume Rates, \$ per 1,000 gallons				
Tier 1	0 - 5 Kgal	\$3.35	\$4.27	\$3.76	<b>\$3.46</b>
Tier 2	5 - 15 Kgal	4.10	5.23	4.89	4.50
Tier 3	5 - 20 Kgal	5.20	6.63	7.34	6.75
Tier 4	> 20 Kgal	6.80	8.67	10.34	9.51
COMMERCIAL					
Base Fee,\$ per Bill	Ę	\$6.00	\$7.70	\$8.70	\$10.90
Volume Rates, \$ Tier 1	<b>Volume Rates, \$ per 1,000 gallons</b> Tier 1	\$3.80	\$5.62	\$4.78	\$4.69
Tier 2	> AWC	4.20	6.21	7.18	7.04
IRRIGATION					
Base Fee, \$ per Bill	Sil	\$6.00	\$7.70	\$8.70	\$10.90
CIC, \$ per Bill		1.50	1.50	1.50	1.50
Volume Rates, \$	Volume Rates, \$ per 1,000 gallons				
Tier 1	0 - 5 Kgal	<b>\$3.35</b>	\$4.27	\$3.76	\$3.46
Tier 2	5 - 15 Kgal	4.10	5.23	4.89	4.50
Tier 3	5 - 20 Kgal	5.20	6.63	7.34	6.75
Tier 4	> 20 Kgal	6.80	8.67	10.34	9.51

## **APPENDIX B:**

## WASTEWATER UTILITY FINANCIAL PLAN, AND RATE DESIGN TABLES

List of Tables

- B -1: Wastewater Financial Plan
- **B-2: Operations Expense Projection**
- **B-3: Capital Projects**
- B-4: Recommended Wastewater Rates Alternatives

	ity of Norman., OK - Norman Utilities Authority
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CITY OF INOTITIATIS, ON - INOTITIALI ULITICS AULIUTIS
Wastewater Utility
Cash Flow Analysis

Line						Fiscal Year Ending	nding				
N	Decription	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32
	REVENUE										
	Fixed										
-	Residential Service Charges	\$2,921,356	\$2,956,413	\$2,991,889	\$3,027,792	\$3,064,126	\$3,100,895	\$3,138,106	\$3,175,763	\$3,213,872	\$3,252,439
N (	All Non-Residential Service Charges	239,606	242,481	245,391 î	248,336	251,316	254,332 î	257,384	260,472 î	263,598 0	266,761
n s	Kesidential Waintenance Charges										
t 1	All NOR-Residential Maintenance Charges	D	D	D	Ð	D	5	D	D	D	Ð
n u											
~ ~	Volumetric										
	Besidential Volumetric	\$5,516,088	\$5 549 184	\$5 582 479	\$5,615,974	\$5,649,670	\$5 683 568	\$5 717 669	\$5,751,975	\$5.786 487	\$5,821,206
. <b>.</b>	All Non-Residential Volumetric	1.739.929	1.750.369	1.760.871	1.771.436	1.782.065	1.792.757	1.803.514	1.814.335	1.825.221	1.836.172
10				1 0000 11		00011011			0001-101-		1 1 100011
: #	Miscellaneous	\$1,494,638	\$1,509,584	\$1,524,680	\$1,539,927	\$1,555,326	\$1,570,880	\$1,586,588	\$1,602,454	\$1,618,479	\$1,634,664
12											
13	Proposed State Loans	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
14	TOTAL OPERATING REVENUE	\$11,911,617	\$12,008,031	\$12,105,311	\$12,203,466	\$12,302,503	\$12,402,432	\$12,503,261	\$12,605,000	\$12,707,657	\$12,811,242
15											
16	EXPENSES										
17	Operating and Maintenance	\$8,725,877	\$9,102,953	\$9,496,514	\$9,854,387	\$10,225,805	\$10,611,283	\$11,011,356	\$11,426,579	\$11,857,528	\$12,304,800
18	Other	0	0	0	0	0	0	0	0	0	0
19	TOTAL O&M EXPENSES	\$8,725,877	\$9,102,953	\$9,496,514	\$9,854,387	\$10,225,805	\$10,611,283	\$11,011,356	\$11,426,579	\$11,857,528	\$12,304,800
20		·									
77	NET REVENUE	\$3,185,740	\$2,905,078	\$2,608,797	\$2,349,079	\$2,076,698	\$1,791,148	\$1,491,905	\$1,178,421	\$850 <b>,</b> 130	\$506,442
22											
5 5	UEBI SERVICE Evirting Dobt Convice	לטר דפר לפ	לר אבר לי	¢1 JE1 360	כוז סגר רא	ό <b>υ τ</b> ης μεσ	¢1 1)1 JEE	ç	ç	ç	ç
1 K	Existing Debt Service	462,102,24 A	5303 659 5303 659	605,122,24	733 555	¢477 673	¢1 218 862	51 472 489	0¢ ¢1 472 489	0¢ ¢1 472 489	51 472 489
96		\$2.257.294	\$2,557,988	\$2,688,759	\$2,981,968	\$3.218.082	\$2.340.117	\$1.472.489	\$1.472.489	\$1.472.489	\$1.472.489
22											
28	NET OPERATING CASH FLOW	<b>\$928,446</b>	\$347,09 <u>1</u>	(\$79,961)	(\$632,889)	(\$1,141,384)	(\$548,969)	\$19,416	(\$294,068)	(\$622,360)	(\$966,047)
3 8	CIP EXPENDITURES - Non Growth										
31	Placeholder	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
32	CIP EXPENDITURES - Non Growth	\$0	\$0	\$0	\$0	\$0	\$0	\$446,714	\$3,514,774	\$3,620,217	\$3,728,824
ж¥	TOTAL CIP EXPENDITURES	\$0	¢0	\$0	\$0	\$0	\$0	\$446,714	\$3,514,774	\$3,620,217	\$3,728,824
35	NET CASH FLOW	<b>\$928,446</b>	\$347,091	(\$79,961)	(\$632,889)	(\$1,141,384)	(\$548,969)	(\$427,299)	(\$3,808,842)	(\$4,242,577)	(\$4,694,871)
37	DEBT COVERAGE										
38	Projected Debt Coverage	1.41	1.14	0.97	0.79	0.65	0.77	1.01	0.80	0.58	0.34
39	Required Debt Coverage	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25
40											
4	Cash Balance										       
42	Beginning Cash Balance	\$1,771,231	\$2,699,677	\$3,046,768	\$2,966,807	\$2,333,918	\$1,192,533	\$643,565	\$216,266	(\$3,592,576)	(\$7,835,153)
43	Net Cash Change	\$928,446	\$347,091	(\$79,961)	(\$632,889)	(\$1,141,384)	(\$548,969)	(\$427,299)	(\$3,808,842)	(\$4,242,577)	(\$4,694,871)
44	ENDING CASH BALANCE	\$2,699,677	\$3,046,768	\$2,966,807	\$2,333,918	\$1,192,533	\$643,565	\$216,266	(\$3,592,576)	(\$7,835,153)	(\$12,530,024)
45											
<b>4</b>	RESERVE TARGET	42 101 1CO	005 JF2 04	001 120 04	207 522 64	44 TTC 414	100 CJ CV	000 010 07	42 22C C42	202 222 24	000 220 00
41	I U I AL RESERVE I ARGE I	<b>\$2,181,469</b>	851,612,2¢	\$2,3/4,129	22,463,597	164,066,26	128,269,2¢	92,/22,839	<b>52,85</b> 6,645	<b>\$2,964,382</b>	\$3,076,200

Table B-1

Jity of Norman., OK - Norman Utilities Authority	Wastewater Utility	-low - WRF
City of Norn	Wastewate	Cash Flow - WRF

	Line						Fiscal Year Ending	· Ending				
	Ñ	Description	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32
Supplies / Materials         796,397         836,217         878,028         913,149         949,675         987,662         1,027,168         1,068,255           Services / Maintenance         1,773,335         1,862,002         1,955,102         2,033,306         2,114,638         2,199,224         2,287,193         2,378,680           Internal Services / Maintenance         234,364         246,082         2,88,386         268,722         2,09,471         2,007,493         2,373,680           Cost Allocations         1,855,989         1,390,229         2,007,438         2,087,735         2,171,245         2,237,942         2,343,418         2,442,355           Cost Allocations         1,855,989         1,390,229         2,007,438         2,087,735         2,171,245         2,237,943         2,442,355           Cost Allocations         1,855,989         1,390,229         2,007,438         2,087,735         2,171,245         2,237,943         2,442,355           Alternate         0         0         0         0         0         0         0         0         0           Alternate         0         0         0         0         0         0         0         0         0         0         0         0         0	1	Salaries / Benefits	\$4,123,728	\$4,288,677	\$4,460,224	\$4,616,332	\$4,777,904	\$4,945,130	\$5,118,210	\$5,297,347	\$5,482,754	\$5,674,651
	2	Supplies / Materials	796,397	836,217	878,028	913,149	949,675	987,662	1,027,168	1,068,255	1,110,985	1,155,425
	m	Services / Maintenance	1,773,335	1,862,002	1,955,102	2,033,306	2,114,638	2,199,224	2,287,193	2,378,680	2,473,828	2,572,781
	4	Internal Services	234,364	246,082	258,386	268,722	279,471	290,649	302,275	314,366	326,941	340,019
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	ŝ	Cost Allocations	1,855,989	1,930,229	2,007,438	2,087,735	2,171,245	2,258,094	2,348,418	2,442,355	2,540,049	2,641,651
Alternate         0	9	Emp Turnover Savings	(57,936)	(60,253)	(62,664)	(64,857)	(67,127)	(69,476)	(71,908)	(74,425)	(77,030)	(79,726)
Alternate         0	7	Alternate	0	0	0	0	0	0	0	0	0	0
Alternate         0	80	Alternate	0	0	0	0	0	0	0	0	0	0
Alternate         0	6	Alternate	0	0	0	0	0	0	0	0	0	0
Inter-Fund Transfers         0	10	Alternate	0	0	0	0	0	0	0	0	0	0
Depreciation         0 <t< th=""><th>11</th><td>Inter-Fund Transfers</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></t<>	11	Inter-Fund Transfers	0	0	0	0	0	0	0	0	0	0
Total Operation and Maintenance Expense \$8,725,877 \$9,102,953 \$9,496,514 \$9,854,387 \$10,225,805 \$10,611,283 \$11,011,356 \$11,426,579	12	Depreciation	0	0	0	0	0	0	0	0	0	0
	13	Total Operation and Maintenance Expense	\$8,725,877	\$9,102,953	\$9,496,514	\$9,854,387	\$10,225,805	\$10,611,283	\$11,011,356	\$11,426,579	\$11,857,528	\$12,304,800

Table B-2

City of Norman, OK - Norman Utilities Authority Wastewater Utility Projected Capital Improvement Program (Including Inflation)

Line	e	Funding	Inflation					Fiscal Year Ending	inding					10-Year
No	o Description	Source	Type	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32	Total
1	L Summit Valley Interceptor	Cash	General	,	,	,	,							,
2	VRF Environmental Services Building Roof Replacement	Cash	General	•										
Э	3 WRF Blower Building Roof Replacement	Cash	General		•	•		•						•
4	t Westside Lift Station Roof Replacement	Bond	General		41,000									41,000
5	5 WRF Main Control Building Lower Roof Replacement	Cash	General							360,000				360,000
9	5 WRF Structure Painting	Cash	General											
7	V WRF Storage Building	Bond	General		850,000									850,000
8	3 Cyber & Physical Security Assessment (1)	Cash	General				•							
6	WRF Reuse Pilot Study TESTING	Cash	General	•	•									
1(	0 Non-Potable Effluent Reuse System	Bond	General			97,000	3,509,000							3,606,000
11	1 Aeration Basin Turbo Blower Replacement	Cash	General											
11	2 WRF Septage Receiving Station	Bond	General			500,000								500,000
31	3 South WRF Land Purchase	Cash	General											
14	4 Sludge Co-Composting (4)	Bond	General			1,035,000								1,035,000
15	5 South WRF Phase 3 BNR Improvements (2)	Cash	General											
16	.6 WRF Digester Gas Storage/Co-Generation	Cash	General			,		,						
H	7 Line Maintenance Building (1)	Cash	General											
15	.8 WRF: Main Control Building Renovation	Bond	General		3,000,000									3,000,000
19	9 WRF Centrifuge Replacement	Cash	General											
20	0 WRF Solar Array	Cash	General				·							
21	1 Undesignated Capital Projects	Cash	General						'		2,750,000	2,750,000	2,750,000	8,250,000
2	2 Undesignated Capital Projects	Bond	General					2,750,000	2,750,000	2,750,000				8,250,000
23	3 Total Capital Improvement Program (with Inflation)			0	3,891,000	1,632,000	3,509,000	2,750,000	2,750,000	3,110,000	2,750,000	2,750,000	2,750,000	25,892,000

Table B-3

City of Norman, OK - Norman Utilities Authority Wastewater Utility Recommended Wastewater Rates Alternatives

Description	FY24 Existing	Alt. 1 ATB	Alt. 2 FCR
RESIDENTIAL			
Base Fee,\$ per Bill	\$5.00	\$5.5 <b>0</b>	\$6.75
Volume Rates, \$ per 1,000 gallons Billed Volume	2.70	2.97	2.70
COMMERCIAL			
Base Fee,\$ per Bill	\$5.00	\$5.5 <b>0</b>	\$6.75
Volume Rates, \$ per 1,000 gallons Billed Volume (85% of Water Use)	2.70	2.97	2.70