

Technical Report

TOWN OF ANTHONY

COST OF SERVICE AND RATE DESIGN STUDY

FINAL REPORT
JUNE 10, 2019



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Nelisa Heddin Consulting, LLC (NH Consulting) is pleased to present the Town of Anthony (Town) with the results of an update of a cost of service and rate design study performed for the Town's water and wastewater utility.

The Town retained NH Consulting to perform a cost of service and rate design study for the Town's water and wastewater utility. The study's intent is to achieve a water and wastewater rate structure that will assure equitable and adequate revenues for operations, including annual debt service. Therefore ensuring the utility operates on a self-sustaining basis while considering the economic impact on the Town's customers.

The project team has worked closely with Town staff and engineer to develop revenue requirements and determine the cost of providing service to each of the Town's customers. The project team identified that in order to meet future revenue requirements, the Town needs to implement future water and wastewater rate increases.

In dissecting the Town's budget and financial policies, it has been determined that currently the water/wastewater utility does not operate on a self-sustaining basis. Specifically, the Town's water and wastewater utility FY2019 budget includes revenues for garbage fees in the amount of \$710,000 and expenses for garbage in the amount of \$570,000, meaning water/wastewater operations are offset by garbage by approximately \$140,000. While the water department does provide billing and collection services for garbage, the cost of the billing and collections is a fraction of this offset. Secondly, currently, the Town is funding approximately \$250,000 in water and wastewater related debt service through the General Fund. As such, the Town's water and wastewater utility is not currently operating on a self-sustaining basis. While these items are policy considerations for the Town, it is considered best-practice in the industry to strive for self-sustaining utility rates which are the fairest and most equitable way to distribute the cost of operations to customers.

NH Consulting recommends the Town move towards a fully self-sustaining utility, requiring water and wastewater rates to fully recover the cost of operations and alleviating General Fund subsidies. The project team has developed two rate design Options for the Town's consideration:

1. Cost Based Rates – Option 1 develops rates that fully recover the Town's costs beginning in FY2020. These rates remove the subsidy from garbage fees from the water and wastewater utility, and also include all water and wastewater related debt service to be funded through water and wastewater rates.
2. Transitional Implementation Plan –Option 2 moves towards cost based rates, but does so over a four-year period of time. These rates





would include 100% of water and wastewater related debt service beginning in FY2020. However, the garbage subsidy would be reduced each year of the four-year period.

The recommended rates are outlined on the tables below:

Table 1: Option 1, Cost Based Rates, Base Fees, Water

c	Current	2020	2021	2022	2023
1" Meter	\$49.45	\$49.95	\$49.95	\$49.95	\$49.95
2" Meter	\$49.45	\$49.95	\$49.95	\$49.95	\$49.95
3" Meter	\$49.45	\$81.27	\$83.86	\$86.56	\$89.33
4" Meter	\$49.45	\$103.44	\$106.73	\$110.17	\$113.69
6" Meter	\$49.45	\$155.15	\$160.09	\$165.26	\$170.54
3/4" Meter	\$14.91	\$8.13	\$8.39	\$8.66	\$8.93

Table 2: Option 1, Cost Based Rates, Volumetric Fees, Water

Volumetric Fees	Current	2020	2021	2022	2023
All customer classes	\$2.77-3.22	\$3.46	\$3.55	\$3.64	\$3.73

Table 3: Option 1, Cost Based Rates, Wastewater Base Fees and Volumetric Rates

Wastewater Rates	Current	2020	2021	2022	2023
Base Fee					
RESIDENTIAL	\$10.34	\$10.62	\$10.90	\$11.19	\$11.49
COMMERCIAL	\$30.00	\$30.00	\$30.00	\$30.00	\$30.00
Volumetric Fee	1.06-2.97	\$4.45	\$4.56	\$4.67	\$4.79

Table 4: Option 2, Transitional Implementation Plan, Base Fees, Water

Base Fees	Current	2020	2021	2022	2023
1" Meter	\$49.45	\$49.95	\$49.95	\$49.95	\$49.95
2" Meter	\$49.45	\$49.95	\$49.95	\$49.95	\$49.95
3" Meter	\$49.45	\$75.20	\$79.99	\$84.90	\$89.87
4" Meter	\$49.45	\$95.71	\$101.81	\$108.06	\$114.38
6" Meter	\$49.45	\$143.57	\$152.71	\$162.08	\$171.57
3/4" Meter	\$14.91	\$7.52	\$8.00	\$8.49	\$8.99



Table 5: Option 2, Transitional Implementation Plan, Volumetric Fees, Water

Volumetric Rate	Current	2020	2021	2022	2023
All customer classes	\$2.77-3.22	\$3.19	\$3.37	\$3.56	\$3.75

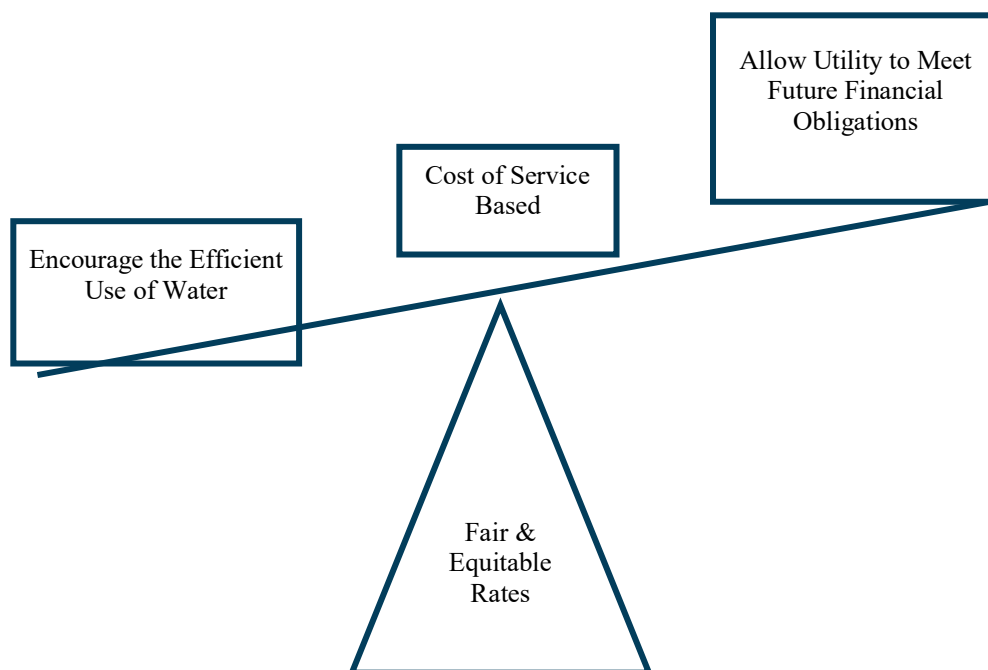
Table 6: Option 2, Transitional Implementation Plan, Wastewater Base Fees and Volumetric Rates

Wastewater Rates	Current	2020	2021	2022	2023
Base Fee					
RESIDENTIAL	\$10.34	\$9.95	\$10.48	\$11.01	\$11.55
COMMERCIAL	\$30.00	\$30.00	\$30.00	\$30.00	\$30.00
Volumetric Fee	1.06-2.97	\$3.90	\$4.15	\$4.39	\$4.64



RATE DESIGN GENERAL COMPONENTS

During rate analysis, the primary consideration is to determine rates that are fair and equitable among all customers. Rates should recover the cost associated with providing service to each customer from that particular customer. Determining rates that fully achieve this goal involves a detailed analysis of each individual customer's consumption pattern. Since this is an impractical feat for most utility systems, a typical rate design establishment fits average conditions for groups of customers having similar service requirements. When grouping customer classes, one divides customers that utilize water in a similar pattern (such as residential, commercial, apartments and irrigation). Then, analysis of historical usage patterns for each customer grouping and assignment of costs accordingly.



The American Water Works Association (AWWA) emphasizes, "Departure from rates based on cost of service is generally a decision made for political, legal or other reasons. Consideration of rates deviating from cost of service, therefore, is made by politicians, not the rate designer." In addition, the AWWA states that "when a deviation from cost-related rates is made, the reason for such modification should be explicitly understood so that the responsibility for such deviation is placed on legal and policy-making factors, and the public is not misled into believing that the resulting rates are fully cost-related when they are not."





It is important to consider when designing and implementing a new rate structure that, while the goal is to get as close as possible to cost of service based rates, with respect for each City's own political environment.

RATE COMPONENTS

Typically, billing of water services are in a structure that consists of a minimum bill and a volumetric component. The intention of the minimum bill is to recover the basic costs associated with providing service to the customer, regardless of the volume of the water utilized. The bill structure usually recovers a high percentage of the utility's fixed costs to ensure the utility some degree of revenue stability. Minimum bills are a fixed monthly fee. The second component of the rates is a volumetric charge. This charge is based on the amount of water utilized by the customer, and may fluctuate based on actual usage.

Minimum Bill

The AWWA provides guidelines for the determination of the minimum bill on a cost basis. Many utilities set their minimum bill based on policy initiatives. The utility may want to use the minimum charge to guarantee a certain percentage of revenue. Another strategy in setting a minimum bill involves providing lifeline rates for customers, where the customer receives a certain amount of water included in the base charge fee. This allows the customer a higher degree of control over their water bill.

There are two (2) primary options available regarding the structure of the minimum bill:

Meter Size – As previously described, the utility is obligated under State Law to maintain system capacity based on the number and size of connections the utility serves. The reasoning is that the larger the meter a customer has, the greater the ability to place a larger demand on the system. Thus, regardless of the amount of water that a customer actually uses, the utility is still required to maintain the capacity to serve that customer based on their meter size.

Accordingly, a minimum bill based on meter size, in which the larger the meter, the higher the bill, recovers the cost the utility incurs due to the potential increased demand placed on the system by that particular customer. The AWWA provides “meter size equivalency factors,” which is a scale of factors are applied to the base charge for a 5/8 inch connection to determine the minimum that should be charged to larger connections.

Equalized Minimum Bill – The alternative minimum bill structure would be an equalized minimum bill in which all customers pay the same fee, regardless of meter size. This very simple fee structure is easy to understand by the utility's customers. In addition, most billing systems are able to accommodate this fee structure. However, it may not be equitable among the utility's customers, depending on that particular utility's customer base.

The project team recommends the Town implement a minimum bill that is based upon a customer's meter size as this is the most fair and equitable means of billing customers.



Volumetric Rate

The second component of the fee structure is the volumetric rate. The basis for the volumetric fees is the actual volume of water each customer uses each month. The volumetric rates usually recover the variable costs associated with providing water to the utility's customers as well as a portion of fixed costs. Utilities also use volumetric rates as a pricing signal to encourage the efficient usage of water. Below are some volumetric rate design options for consideration.

Customer Class – As previously described, different classes of customers utilize water in different ways. Some customers use large amounts of water seasonally for irrigation, while other customers' monthly water use varies only slightly. There is a significant cost implication to different water usage patterns. Those customers who use water irregularly throughout the year, such as those who irrigate, cause the utility's water system to have a higher peaking than those customers who use a consistent amount of water monthly. A case can be made that utilities should classify customers into like groupings (such as residential, commercial, apartments and irrigation) and charge those customers different rates based on their relative usage patterns. The AWWA has outlined a methodology for determining these rates called the Base-Extra Capacity methodology. The basic premise of this methodology is to isolate usage patterns based on customer classifications and allocate costs to those customers based on peaking patterns. While this is a complex task, it is arguably the most equitable means of charging customers for water usage.

The drawback to this methodology is that it is a slightly more complex fee structure that some customers may have difficulty understanding. Prior to implementation, the utility's billing system requires examination to ensure that it is capable of charging customers based on this structure.

Equalized Rate – An alternative to varying volumetric rates based on customer class is to charge all customers the same volumetric rate. This is appropriate for utilities that have a relatively homogenous customer base in which most customers use water in a similar pattern. This rate structure is easy for customers to understand, and usually most billing systems can accommodate equalized rates. The industry recommends that each utility examine its customer base to determine if it is a homogenous group of customers, or if there are customers who use water in different patterns.

After close examination of the Town's cost structure and customer matrix, the project team recommends the Town used an equalized volumetric rate as a means of billing customers.

WATER PRODUCTION

In 2016, the Town produced approximately 207 million gallons of water, with a peak day production of .568 MG.

Table 7: Historical Water Production (Gallons)

Water	2014	2015	2016
Total Production	199,302,000	188,234,000	207,372,000
Average Daily Demand	546,033	515,710	568,142
Peak Day Demand	1,040,000	1,005,000	1,092,000
Peak to Average Ratio	1.90	1.95	1.92

As emphasized in the previous section, there is a direct correlation between a system's production and peaking patterns and the system's costs. The Town's peak to average ratio, as determined by dividing maximum daily production by the average daily production, was 1.92:1 for 2016.

WATER CONSUMPTION

As of September 2016, the Town provides water services to 1,218 retail, potable water customers. The Town meters all active potable water connections. Annual metered water consumption was approximately 155 million gallons in 2016.

Table 8: Historical Water Consumption and Customer Count

Year	Customer Count	Consumption
2014	1,157	158,790,000
2015	1,192	150,898,000
2016	1,218	155,091,000





WORK PLAN

In determining water rates, NH Consulting used the following three-step approach:

- Step 1: Revenue Requirement Determination
- Step 2: Customer Count and Billing Unit Determination
- Step 3: Rate Design

NH Consulting has performed each of these steps in coordination with Town staff. The next sections describe each step along with the results.

STEP 1: REVENUE REQUIREMENT DETERMINATION

BASE YEAR REVENUE REQUIREMENT

WATER FUND

To account for the water utility operations, the Town has an Enterprise Fund that accounts for water operational revenues and expenditures. To determine the water utility revenue requirements, NH Consulting relied on the Town's budgeted and historical actual expenditures within the Water Enterprise Fund as a starting point.

SYSTEM EXPENDITURES

A base year estimate of costs helps to determine the Town's future revenue requirements. This cost estimate is reflective of the normal operation of the water utility, and adjusted for known and measurable changes into the future. NH Consulting used the FYE2019 budget as the Test Year for the revenue requirement phase of the study.

REVENUE OFFSETS

In order to isolate the revenues required by rates from all customers, it was necessary to capture all revenue offsets and remove the corresponding dollar amount from the gross revenue requirement to determine the net revenue requirement. Revenue offsets are items such as late fees and interest income that offset the Town's expense.

REVENUE REQUIREMENT OPTIONS

NH Consulting has reviewed the Town's existing financial policies with regard to the water and wastewater operations, and has identified two policy items for the Town's consideration.

1. Water and Wastewater Related Debt Service – currently, the Town funds approximately \$250,000 in water and wastewater annual debt service through the General Fund, not through the Utility Fund. In general, this is not within industry best-management practices. Funding utility debt service requires customers to pay for a portion of utility-related debt based upon their relative property value. Property values generally are not correlated with



the demands (and therefore cost burden) a property owner places on the utility. As such, NH Consulting recommends the Town fund this debt service through utility rates; doing so would ease this burden from the General Fund, freeing these monies for other purposes.

2. Garbage Fees – the Town has budgeted \$710,000 in garbage fee revenues for FY2019, with a budgeted expense of \$570,000. This results in approximately \$140,000 in excess revenues from garbage services. These monies currently are budgeted to remain in the Utility Fund. While, the Utility Fund does provide billing and collection services for garbage services, the cost of these services is a fraction of the excess revenue amount. NH Consulting is recommending the Town alleviate this subsidy from the garbage fees from Utility Fund. These monies can be transferred to the General Fund, freeing these monies for other purposes and needs within the Town.

Making the above policy adjustments would result in a self-sustaining water and wastewater utility. NH Consulting has developed two different revenue requirement, and thus rate design Options for the Town’s consideration:

1. Cost Based Rates – Option 1 develops rates that fully recover the Town’s costs beginning in FY2020. These rates remove the subsidy from garbage fees from the water and wastewater utility, and also include all water and wastewater related debt service to be funded through water and wastewater rates.
2. Transitional Implementation Plan – Option 2 moves towards cost based rates, but does so over a four-year period of time. These rates would include 100% of water and wastewater related debt service beginning in FY2020. However, the garbage subsidy would be reduced each year of the four-year period.

BASE YEAR REVENUE REQUIREMENT

The base year total revenue requirement determined by the project team for the water utility for FYE 2020 was \$666,553 for Option 1 and \$616,638 for Option 2, both of which include debt service for the utility.

FOUR-YEAR REVENUE REQUIREMENT

INFLATION

NH Consulting accounted for inflationary influences on annual expenditures by applying a 3% annual inflation rate for most expenditure categories in developing the four-year revenue requirement.

CAPITAL IMPROVEMENT FUNDING

The analysis does not include additional funding for capital improvements.



REVENUE OFFSETS

Revenue-offset projections remained constant throughout the study period, for the benefit of conservative estimations.

FOUR-YEAR REVENUE REQUIREMENT

Table 9 outlines the four-year revenue requirement for the Water Utility. Schedule 1 shows each line item with details for Option 1 and Schedule 2 shows each line item with details for Option 2.

Table 9: Water Utility Four-Year Revenue Requirement.

	2018 Estimated Actual	2020	2021	2022	2023
Option 1	\$568,253	\$666,553	\$683,252	\$701,123	\$719,209
Option 2	\$568,253	\$616,638	\$650,915	\$686,365	\$722,034



STEP 2: CUSTOMER GROWTH AND BILLING UNITS

CUSTOMER GROWTH

Population projections for a Town should reasonably reflect anticipated future conditions within the Town. NH Consulting worked closely with Town staff to make projections of future growth within the Town. In the interested of being conservative, the analysis assumed the future customer count to remain constant at current levels¹.

Table 10: Projected Customer Count.

	2020	2021	2022	2023
Commercial	44	44	44	44
Residential	<u>1,174</u>	<u>1,174</u>	<u>1,174</u>	<u>1,174</u>
Total	1,218	1,218	1,218	1,218

BILLING UNIT PROJECTION

To anticipate usage for each customer classification requires an examination of historical billing units, also known as water consumption, to find the “normal” pattern for each class. Through a “normalized” average usage, per connection, per month, then multiplying the usage by the projected customer count, results in the estimated billing units and consumption. NH Consulting reviewed the water consumption data for each customer class for the three years prior to 2016.

Table 11: Projected Water Consumption (Thousand Gallons).

	2020	2021	2022	2023
Commercial	59,215	59,215	59,215	59,215
Residential	<u>91,606</u>	<u>91,606</u>	<u>91,606</u>	<u>91,606</u>
Total	150,820	150,820	150,820	150,820

¹ In the event the Town does experience growth, the materiality of that growth would need to be analyzed to determine whether adjustments to the rate recommendations should be made.



STEP 3: RATE DESIGN

There are many different rate design options regarding water rate development, however, the goal is to provide a fair and equitable rate for all customer classes, mitigate “rate-shock” on the Town’s customers and allow for the water utility to operate and remain self-sufficient.

MINIMUM BILL

NH Consulting recommends that the Town continue to bill water customers a minimum base charge which is based upon meter size. The recommended minimum bill for each customer class is outlined on Tables 12 and 13 below.

VOLUMETRIC RATE

The volumetric rates for the Town have been designed to recover revenue requirements not otherwise recovered through the base charge. The recommended volumetric rates are outlined on Tables 14 and 15.

Table 12: Option 1, Cost Based Rates, Base Fees, Water

Base Fees	Current	2020	2021	2022	2023
1" Meter	\$49.45	\$49.95	\$49.95	\$49.95	\$49.95
2" Meter	\$49.45	\$49.95	\$49.95	\$49.95	\$49.95
3" Meter	\$49.45	\$81.27	\$83.86	\$86.56	\$89.33
4" Meter	\$49.45	\$103.44	\$106.73	\$110.17	\$113.69
6" Meter	\$49.45	\$155.15	\$160.09	\$165.26	\$170.54
3/4" Meter	\$14.91	\$8.13	\$8.39	\$8.66	\$8.93

Table 13: Option 2, Transitional Implementation Plan, Base Fees, Water

Base Fees	Current	2020	2021	2022	2023
1" Meter	\$49.45	\$49.95	\$49.95	\$49.95	\$49.95
2" Meter	\$49.45	\$49.95	\$49.95	\$49.95	\$49.95
3" Meter	\$49.45	\$75.20	\$79.99	\$84.90	\$89.87
4" Meter	\$49.45	\$95.71	\$101.81	\$108.06	\$114.38
6" Meter	\$49.45	\$143.57	\$152.71	\$162.08	\$171.57
3/4" Meter	\$14.91	\$7.52	\$8.00	\$8.49	\$8.99

Table 14: Option 1, Cost Based Rates, Volumetric Fees, Water

Volumetric Fees	Current	2020	2021	2022	2023
All customer classes	\$2.77-3.22	\$3.46	\$3.55	\$3.64	\$3.73



Table 15: Option 2, Transitional Implementation Plan, Volumetric Fees, Water

Volumetric Rate	Current	2020	2021	2022	2023
All customer classes	\$2.77-3.22	\$3.19	\$3.37	\$3.56	\$3.75

As previously described, the recommended rates do not include funding for future capital projects. In the event the Town determines that additional capital infrastructure is required, the project team has analyzed the rates and has determined that for every additional \$100,000 in annual expense (either debt service or cash-capital outlay), the base fee recommendation would be required to increase by \$5.70 per month, per connection, beyond that recommended above, to pay for the additional annual expense.

By adopting the rate recommendations as described above and the wastewater rates outlined in the next section, the Town will potentially free-up funds to be used in other Town departments and/or resources would be available to fund future capital projects. Table 16 below outlines the potential additional cash-flow that would be available if the Town were to adopt Option 2 rates.



Table 16: Option 2: Summary of Additional Available Cash-Flow

Option 2 Cash Flow Summary	2019 Budget	2020	2021	2022	2023
Revenues:					
Water Sales	\$600,000	\$616,638	\$650,915	\$686,365	\$722,034
Wastewater Sales	410,000	545,243	577,676	610,556	643,898
Garbage Sales Allocated to Water	710,000	532,500	355,000	177,500	-
Other Revenues	<u>42,900</u>	<u>42,900</u>	<u>42,900</u>	<u>42,900</u>	<u>42,900</u>
Total Revenues	\$1,762,900	\$1,737,281	\$1,626,490	\$1,517,321	\$1,408,831
Expenses:					
Water & Wastewater O&M	\$980,170	\$1,009,575	\$1,039,862	\$1,071,058	\$1,103,190
Garbage Fees Allocated to Water	570,000	427,500	285,000	142,500	-
Capital Improvements	162,730	-	-	-	-
Utility Debt Service	-	248,706	248,583	249,126	249,366
Reserves/Contingency	<u>50,000</u>	<u>51,500</u>	<u>53,045</u>	<u>54,636</u>	<u>56,275</u>
	\$1,762,900	\$1,737,281	\$1,626,490	\$1,517,321	\$1,408,831
Net Available for Other Purposes					
Net Garbage Fees:					
Total Garbage Revenues		\$710,000	\$710,000	\$710,000	\$710,000
Less Total Garbage Fee Expense		(570,000)	(570,000)	(570,000)	(570,000)
Less Total Garbage Off-Set for Water/Wastewater Rates		(105,000)	(70,000)	(35,000)	-
Net Garbage Revenue Transfer to General Fund		\$35,000	\$70,000	\$105,000	\$140,000
Plus Annual General Fund Debt Service		\$248,706	\$248,583	\$249,126	\$249,366
TOTAL FUNDS AVAILABLE FOR OTHER PURPOSES		\$283,706	\$318,583	\$354,126	\$389,366

The rates recommended for the Town as outlined in this section and the following section favor comparably to the City of El Paso, when compared to the average bill a resident of the Town of Anthony would pay for 6,000 of water use and 3,000 of wastewater winter average, as outlined on the figure below.



WASTEWATER SYSTEM

As of September 2016, the Town had 1,216 wastewater connections. As wastewater is not typically metered, and for many residential customers, a portion of their water use is for outdoor irrigation purposes, their water use is not necessarily representative of what is coming back to the system as wastewater. As a result, it is necessary to employ a methodology for reasonably estimating wastewater use based on water consumption for residential customers.

For residential customers, a winter averaging methodology was utilized for estimating residential wastewater use.

Generally commercial customers are not irrigating, thus, their water use also comes back to the system as wastewater. For that reason, commercial customer billing uses water consumption as a foundation for wastewater billing.





WORK PLAN

The determination of wastewater rates is somewhat simpler as the wastewater utility is not subject to the same influences of peaking as the water utility.

NH Consulting utilized a three-step approach to determining the wastewater rates:

- Step 1: Revenue Requirement Determination
- Step 2: Customer Count and Billing Unit Determination
- Step 3: Rate Design

NH Consulting has performed each of these steps in coordination with Town staff; below shows the description and results of each step.

STEP 1: REVENUE REQUIREMENT DETERMINATION

BASE YEAR REVENUE REQUIREMENT

WASTEWATER FUND

To account for the wastewater utility operations, the Town has an Enterprise Fund that accounts for water operational revenues and expenditures. To determine the wastewater utility revenue requirements, NH Consulting relied on the Town's budgeted and historical actual expenditures within the Water Enterprise Fund as a starting point.

SYSTEM EXPENDITURES

A base year estimate of costs helps to determine the Town's future revenue requirements. This cost estimate is reflective of the normal operation of the wastewater utility, and adjusted for known and measurable changes into the future. NH Consulting used the FYE2019 budget as the Test Year for the revenue requirement phase of the study.

REVENUE OFFSETS

In order to isolate the revenues required by rates from all customers, it was necessary to capture all revenue offsets and remove the corresponding dollar amount from the gross revenue requirement to determine the net revenue requirement. Revenue offsets are items such as late fees and interest income that offset the Town's expense.

REVENUE REQUIREMENT OPTIONS

NH Consulting has reviewed the Town's existing financial policies with regard to the water and wastewater operations, and has identified two policy items for the Town's consideration.



1. Water and Wastewater Related Debt Service – currently, the Town funds approximately \$250,000 in water and wastewater annual debt service through the General Fund, not through the Utility Fund. In general, this is not within industry best-management practices. Funding utility debt service requires customers to pay for a portion of utility-related debt based upon their relative property value. Property values generally are not correlated with the demands (and therefore cost burden) a property owner places on the utility. As such, NH Consulting recommends the Town fund this debt service through utility rates; doing so would ease this burden from the General Fund, freeing these monies for other purposes.
2. Garbage Fees – the Town has budgeted \$710,000 in garbage fee revenues for FY2019, with a budgeted expense of \$570,000. This results in approximately \$140,000 in excess revenues from garbage services. These monies currently are budgeted to remain in the Utility Fund. While, the Utility Fund does provide billing and collection services for garbage services, the cost of these services is a fraction of the excess revenue amount. NH Consulting is recommending the Town alleviate this subsidy from the garbage fees from Utility Fund. These monies can be transferred to the General Fund, freeing these monies for other purposes and needs within the Town.

Making the above policy adjustments would result in a self-sustaining water and wastewater utility. NH Consulting has developed two different revenue requirement, and thus rate design Options for the Town’s consideration:

1. Cost Based Rates – Option 1 develops rates that fully recovering the Town’s costs beginning in FY2020. These rates remove the subsidy from garbage fees from the water and wastewater utility, and also include all water and wastewater related debt service to be funded through water and wastewater rates.
2. Transitional Implementation Plan – Option 2 moves towards cost based rates, but does so over a four-year period of time. These rates would include 100% of water and wastewater related debt service beginning in FY2020. However, the garbage subsidy would be reduced each year of the four-year period.

BASE YEAR REVENUE REQUIREMENT

The base year total revenue requirement determined by the project team for the water utility for FYE 2020 was \$610,628 for Option 1 and \$545,243 for Option 2.

FOUR-YEAR REVENUE REQUIREMENT

INFLATION

NH Consulting accounted for inflationary influences on annual expenditures by applying a 3% annual inflation rate for most expenditure categories in developing the four-year revenue requirement.



CAPITAL IMPROVEMENT FUNDING

The analysis does not include additional funding for capital improvements.

REVENUE OFFSETS

Revenue-offset projections remained constant throughout the study period, for the benefit of conservative estimations.

FOUR-YEAR REVENUE REQUIREMENT

Table 16 outlines the four-year revenue requirement for the Wastewater Utility, including annual debt service for the utility. Schedule 3 shows each line item with details for Option 1 and Schedule 4 shows each line item with details for Option 2.

Table 16: Wastewater Utility Four-Year Revenue Requirement.

	2018 Estimated Actual	2020	2021	2022	2023
Option 1	\$394,699	\$610,628	\$625,947	\$641,725	\$657,977
Option 2	\$394,699	\$545,243	\$577,676	\$610,556	\$643,898

STEP 2: CUSTOMER GROWTH AND BILLING UNITS

CUSTOMER GROWTH

The project team worked with Town staff to develop reasonable growth projections for the wastewater utility. In the interest of being conservative, the project assumed the Town would not see growth in wastewater customer count during the study period².

Table 17: Wastewater Customer Count Projection.

	2020	2021	2022	2023
Commercial	42	42	42	42
Residential	<u>1,174</u>	<u>1,174</u>	<u>1,174</u>	<u>1,174</u>
Total	1,216	1,216	1,216	1,216

BILLING UNIT PROJECTION

² In the event the Town experiences growth, the materiality of that growth should be examined to determine whether adjustments to rates should be made.



To anticipate usage for each customer classification requires an examination of historical billing units, also known as water consumption, to find the “normal” pattern for each class. Through a “normalized” average usage, per connection, per month, then multiplying the usage by the projected customer count, results in the estimated billing units and consumption. Table 18 presents wastewater billing projections.

Table 18: Wastewater Usage (Thousand Gallons)

	2020	2021	2022	2023
Commercial	55,070	54,972	55,058	55,033
Residential	47,405	47,405	47,405	47,405
Total	102,474	102,376	102,463	102,438

STEP 3: DETERMINATION OF WASTEWATER RATES

The recommended wastewater rates are presented on Tables 19 and 20 below.

Table 19: Recommended Wastewater Rates, Option 1

Wastewater Rates	Current	2020	2021	2022	2023
Base Fee					
RESIDENTIAL	\$10.34	\$10.62	\$10.90	\$11.19	\$11.49
COMMERCIAL	\$30.00	\$30.00	\$30.00	\$30.00	\$30.00
Volumetric Fee	1.06-2.97	\$4.45	\$4.56	\$4.67	\$4.79

Table 20: Recommended Wastewater Rates, Option 2

Wastewater Rates	Current	2020	2021	2022	2023
Base Fee					
RESIDENTIAL	\$10.34	\$9.95	\$10.48	\$11.01	\$11.55
COMMERCIAL	\$30.00	\$30.00	\$30.00	\$30.00	\$30.00
Volumetric Fee	1.06-2.97	\$3.90	\$4.15	\$4.39	\$4.64

As previously described, the recommended rates do not include funding for future capital projects. In the event the Town determines that additional capital infrastructure is required, the project team has analyzed the rates and has determined that for every additional \$100,000 in annual expense (either debt service or cash-capital outlay), the base fee recommendation would be required to increase by \$6.85 per month, per connection, beyond that recommended above, to pay for the additional annual expense.



Town of Anthony
 Water and Wastewater Department
 Cost of Service and Rate Design Study



Schedule 1
 Water Revenue Requirement
 Option 1

	2020	2021	2022	2023	Inflation	Notes
Expenses						
Salaries & Wages						
Salary Parks	\$ -	\$ -	\$ -	\$ -	3%	
Salary Vehicle Maint	-	-	-	-	3%	
Salaries - Water	179,597	184,985	190,535	196,251	3%	
Salaries - Sewer	-	-	-	-	3%	
Salaries & Wages - Admin	-	-	-	-	3%	
Overtime	5,150	5,305	5,464	5,628	3%	
401(K) Match	-	-	-	-	3%	
TMRS	5,150	5,305	5,464	5,628	3%	
Payroll Taxes	-	-	-	-	3%	
Payroll Taxes - Water	12,009	12,369	12,740	13,122	3%	
Payroll Taxes - Sewer	-	-	-	-	3%	
Payroll Taxes - Parks	13,739	14,151	14,576	15,013	3%	
Payroll Taxes - Veh Main	-	-	-	-	3%	
Payroll Taxes - Admin	-	-	-	-	3%	
Health Insurance	-	-	-	-	3%	
Ins Health - Park	-	-	-	-	3%	
Ins Health - Vehicle Maint	-	-	-	-	3%	
Ins Health - Water	23,175	23,870	24,586	25,324	3%	
Ins Health - Sewer	-	-	-	-	3%	
Ins Health - Other	-	-	-	-	3%	
Garbage Contract						
Engineering Fees	14,420	14,853	15,298	15,757	3%	
Other Professional Fees	10,815	11,139	11,474	11,818	3%	
Contract Labor	-	-	-	-	3%	
Lab Tests	5,150	5,305	5,464	5,628	3%	

**Town of Anthony
Water and Wastewater Department
Cost of Service and Rate Design Study**



**Schedule 1
Water Revenue Requirement
Option 1**

	2020	2021	2022	2023	Inflation	Notes
Reps & Maint Equip	23,175	23,870	24,586	25,324	3%	
Water	-	-	-	-	3%	
Sewer	-	-	-	-	3%	
Reps & Maint Buildings	2,833	2,917	3,005	3,095	3%	
Reps & Maint Vehicles	8,755	9,018	9,288	9,567	3%	
Vehicle Inspection	-	-	-	-	3%	
Reps & Maint Vehicles	-	-	-	-	3%	
Reps & Maint Field Vehicle	-	-	-	-	3%	
Street Maintenance	15,450	15,914	16,391	16,883	3%	
Util/Telephone	3,605	3,713	3,825	3,939	3%	
Water	-	-	-	-	3%	
Sewer	-	-	-	-	3%	
Cell Phones	2,060	2,122	2,185	2,251	3%	
Water	-	-	-	-	3%	
Sewer	-	-	-	-	3%	
Cell Phones - Data Card	-	-	-	-	3%	
Utilities/Electric	45,835	47,210	48,626	50,085	3%	
Water	-	-	-	-	3%	
Sewer	-	-	-	-	3%	
Utilities Electric	4,120	4,244	4,371	4,502	3%	
Advertising	-	-	-	-	3%	
Bank Charges	-	-	-	-	3%	
Credit Bank Fees	-	-	-	-	3%	
Finance Charges	5,150	5,305	5,464	5,628	3%	
Bank Charges	-	-	-	-	3%	
Dues & Subscriptions	-	-	-	-	3%	
Ice	-	-	-	-	3%	

**Town of Anthony
Water and Wastewater Department
Cost of Service and Rate Design Study**



**Schedule 1
Water Revenue Requirement
Option 1**

	2020	2021	2022	2023	Inflation	Notes
License & Permits	-	-	-	-	3%	
Water	5,408	5,570	5,737	5,909	3%	
License & Permits	2,060	2,122	2,185	2,251	3%	
Office Supplies	-	-	-	-	3%	
Water	-	-	-	-	3%	
Office Supplies	-	-	-	-	3%	
Cleaning Supplies	-	-	-	-	3%	
Water	2,060	2,122	2,185	2,251	3%	
Cleaning Supplies	5,150	5,305	5,464	5,628	3%	
Postage	1,288	1,326	1,366	1,407	3%	
Computer Services Equipmt	-	-	-	-	3%	
Printing	515	530	546	563	3%	
Meals & Entertainment	-	-	-	-	3%	
Water	-	-	-	-	3%	
Meals & Entertainment	1,545	1,591	1,639	1,688	3%	
Miscellaneous	1,545	1,591	1,639	1,688	3%	
Travel & Trans	15,450	15,914	16,391	16,883	3%	
Gasoline & Oil	-	-	-	-	3%	
Water	-	-	-	-	3%	
Training & Education	-	-	-	-	3%	
Parks	-	-	-	-	3%	
Water	3,605	3,713	3,825	3,939	3%	
Training & Education	1,030	1,061	1,093	1,126	3%	
Armored Car	15,965	16,444	16,937	17,445	3%	
Chlorine Supply	-	-	-	-	3%	
Supplies Other Chemicals	1,545	1,591	1,639	1,688	3%	
Small Tools	-	-	-	-	3%	

**Town of Anthony
Water and Wastewater Department
Cost of Service and Rate Design Study**



**Schedule 1
Water Revenue Requirement
Option 1**

	2020	2021	2022	2023	Inflation	Notes
Water	-	-	-	-	3%	
Small Tooles - Parks	5,459	5,623	5,791	5,965	3%	
Uniforms	-	-	-	-	3%	
Water	-	-	-	-	3%	
Uniforms	52,530	54,106	55,729	57,401	3%	
Street Rent Water	-	-	-	-	3%	
Street Rent Sewer	-	-	-	-	3%	
Streets	-	-	-	-	3%	
Water	-	-	-	-	3%	
Diagnostic Equipment	-	-	-	-	3%	
Water Meters	10,300	10,609	10,927	11,255	3%	
Safety Equipment	3,605	3,713	3,825	3,939	3%	
Water Line Supplies	10,300	10,609	10,927	11,255	3%	
Reserve Fund	-	-	-	-	3%	
Contingency	25,750	26,523	27,318	28,138	3%	
TWDB Sewer Project						
TWDB Loan	128,706	128,583	129,126	129,366		
Water District Fee	15,450	15,914	16,391	16,883	3%	
Capital Improvements	-	-	-	-	3%	
	<u>\$ 689,453</u>	<u>\$ 706,152</u>	<u>\$ 724,023</u>	<u>\$ 742,109</u>		

Revenue Off-Sets						
Water Sales	\$	-	\$	-	\$	-
Water Tap Fees		1,200		1,200		1,200
Bulk Water Sales		1,700		1,700		1,700
Sewer Sales		-		-		-

Town of Anthony
 Water and Wastewater Department
 Cost of Service and Rate Design Study



Schedule 1
 Water Revenue Requirement
 Option 1

	2020	2021	2022	2023	Inflation	Notes
Sewer Tap Fees	-	-	-	-		
Public Service	-	-	-	-		
Garbage Fees	-	-	-	-		
Roll Offs	-	-	-	-		
Garbage Fees	-	-	-	-		
Reconnection Fees	6,000	6,000	6,000	6,000		
Interest Income	-	-	-	-		
Other Income	14,000	14,000	14,000	14,000		
Returned Check Fees	-	-	-	-		
Late Fees	-	-	-	-		
Service Charge Credit Card	-	-	-	-		
Other Income	-	-	-	-		
	<u>\$ 22,900</u>	<u>\$ 22,900</u>	<u>\$ 22,900</u>	<u>\$ 22,900</u>		
TOTAL REVENUE REQUIREMENT	\$ 666,553	\$ 683,252	\$ 701,123	\$ 719,209		

Town of Anthony
 Water and Wastewater Department
 Cost of Service and Rate Design Study



Schedule 2
 Water Revenue Requirement
 Option 2

	2020	2021	2022	2023	Inflation	Notes
Expenses						
Salaries & Wages						
Salary Parks	\$ -	\$ -	\$ -	\$ -	3%	
Salary Vehicle Maint	-	-	-	-	3%	
Salaries - Water	179,597	184,985	190,535	196,251	3%	
Salaries - Sewer	-	-	-	-	3%	
Salaries & Wages - Admin	-	-	-	-	3%	
Overtime	5,150	5,305	5,464	5,628	3%	
401(K) Match	-	-	-	-	3%	
TMRS	6,004	6,185	6,370	6,561	3%	
Payroll Taxes	-	-	-	-	3%	
Payroll Taxes - Water	27,478	28,303	29,152	30,026	3%	
Payroll Taxes - Sewer	-	-	-	-	3%	
Payroll Taxes - Parks	-	-	-	-	3%	
Payroll Taxes - Veh Main	-	-	-	-	3%	
Payroll Taxes - Admin	-	-	-	-	3%	
Health Insurance	-	-	-	-	3%	
Ins Health - Park	-	-	-	-	3%	
Ins Health - Vehicle Maint	-	-	-	-	3%	
Ins Health - Water	23,175	23,870	24,586	25,324	3%	
Ins Health - Sewer	-	-	-	-	3%	
Ins Health - Other	-	-	-	-	3%	
Garbage Contract						Net included below
Engineering Fees	14,420	14,853	15,298	15,757	3%	
Other Professional Fees	10,815	11,139	11,474	11,818	3%	
Contract Labor	-	-	-	-	3%	
Lab Tests	5,150	5,305	5,464	5,628	3%	
Reps & Maint Equip	23,175	23,870	24,586	25,324	3%	

**Town of Anthony
Water and Wastewater Department
Cost of Service and Rate Design Study**



**Schedule 2
Water Revenue Requirement
Option 2**

	2020	2021	2022	2023	Inflation	Notes
Water	-	-	-	-	3%	
Sewer	-	-	-	-	3%	
Reps & Maint Buildings	2,833	2,917	3,005	3,095	3%	
Reps & Maint Vehicles	8,755	9,018	9,288	9,567	3%	
Vehicle Inspection	-	-	-	-	3%	
Reps & Maint Vehicles	-	-	-	-	3%	
Reps & Maint Field Vehicle	-	-	-	-	3%	
Street Maintenance	15,450	15,914	16,391	16,883	3%	
Util/Telephone	3,605	3,713	3,825	3,939	3%	
Water	-	-	-	-	3%	
Sewer	-	-	-	-	3%	
Cell Phones	2,060	2,122	2,185	2,251	3%	
Water	-	-	-	-	3%	
Sewer	-	-	-	-	3%	
Cell Phones - Data Card	-	-	-	-	3%	
Utilities/Electric	45,835	47,210	48,626	50,085	3%	
Water	-	-	-	-	3%	
Sewer	-	-	-	-	3%	
Utilities Electric	4,120	4,244	4,371	4,502	3%	
Advertising	-	-	-	-	3%	
Bank Charges	-	-	-	-	3%	
Credit Bank Fees	-	-	-	-	3%	
Finance Charges	5,150	5,305	5,464	5,628	3%	
Bank Charges	-	-	-	-	3%	
Dues & Subscriptions	-	-	-	-	3%	
Ice	-	-	-	-	3%	
License & Permits	-	-	-	-	3%	
Water	5,408	5,570	5,737	5,909	3%	

**Town of Anthony
Water and Wastewater Department
Cost of Service and Rate Design Study**



**Schedule 2
Water Revenue Requirement
Option 2**

	2020	2021	2022	2023	Inflation	Notes
License & Permits	2,060	2,122	2,185	2,251	3%	
Office Supplies	-	-	-	-	3%	
Water	-	-	-	-	3%	
Office Supplies	-	-	-	-	3%	
Cleaning Supplies	-	-	-	-	3%	
Water	2,060	2,122	2,185	2,251	3%	
Cleaning Supplies	5,150	5,305	5,464	5,628	3%	
Postage	1,288	1,326	1,366	1,407	3%	
Computer Services Equipmt	-	-	-	-	3%	
Printing	515	530	546	563	3%	
Meals & Entertainment	-	-	-	-	3%	
Water	-	-	-	-	3%	
Meals & Entertainment	1,545	1,591	1,639	1,688	3%	
Miscellaneous	1,545	1,591	1,639	1,688	3%	
Travel & Trans	15,450	15,914	16,391	16,883	3%	
Gasoline & Oil	-	-	-	-	3%	
Water	-	-	-	-	3%	
Training & Education	-	-	-	-	3%	
Parks	-	-	-	-	3%	
Water	3,605	3,713	3,825	3,939	3%	
Training & Education	1,030	1,061	1,093	1,126	3%	
Armored Car	15,965	16,444	16,937	17,445	3%	
Chlorine Supply	-	-	-	-	3%	
Supplies Other Chemicals	1,545	1,591	1,639	1,688	3%	
Small Tools	-	-	-	-	3%	
Water	-	-	-	-	3%	
Small Tooles - Parks	5,459	5,623	5,791	5,965	3%	
Uniforms	-	-	-	-	3%	

**Town of Anthony
Water and Wastewater Department
Cost of Service and Rate Design Study**



**Schedule 2
Water Revenue Requirement
Option 2**

	2020	2021	2022	2023	Inflation	Notes
Water	-	-	-	-	3%	
Equipment	52,530	54,106	55,729	57,401	3%	
Street Rent Water	-	-	-	-	3%	
Street Rent Sewer	-	-	-	-	3%	
Streets	-	-	-	-	3%	
Water	-	-	-	-	3%	
Diagnostic Equipment	-	-	-	-	3%	
Water Meters	10,300	10,609	10,927	11,255	3%	
Safety Equipment	3,605	3,713	3,825	3,939	3%	
Water Line Supplies	10,300	10,609	10,927	11,255	3%	
Reserve Fund	-	-	-	-	3%	
Contingency	25,750	26,523	27,318	28,138	3%	
TWDB Sewer Project						
TWDB Loan	128,706	128,583	129,126	129,366		
Water District Fee	15,450	15,914	16,391	16,883	3%	
Capital Improvements	-	-	-	-	3%	
	\$ 692,038	\$ 708,815	\$ 726,765	\$ 744,934		

Revenue Off-Sets

Water Sales	\$ -	\$ -	\$ -	\$ -
Water Tap Fees	1,200	1,200	1,200	1,200
Bulk Water Sales	1,700	1,700	1,700	1,700
Sewer Sales	-	-	-	-
Sewer Tap Fees	-	-	-	-
Public Service	-	-	-	-
Garbage Fees	-	-	-	-
Roll Offs	-	-	-	-
Net Garbage Fees	52,500	35,000	17,500	-

**Town of Anthony
Water and Wastewater Department
Cost of Service and Rate Design Study**



**Schedule 2
Water Revenue Requirement
Option 2**

	2020	2021	2022	2023	Inflation	Notes
Reconnection Fees	6,000	6,000	6,000	6,000		
Interest Income	-	-	-	-		
Other Income	14,000	14,000	14,000	14,000		
Returned Check Fees	-	-	-	-		
Late Fees	-	-	-	-		
Service Charge Credit Card	-	-	-	-		
Other Income	-	-	-	-		
	<u>\$ 75,400</u>	<u>\$ 57,900</u>	<u>\$ 40,400</u>	<u>\$ 22,900</u>		
TOTAL REVENUE REQUIREMENT	\$ 616,638	\$ 650,915	\$ 686,365	\$ 722,034		

2019 Garbage Budget					
Revenues	\$ 532,500	\$ 355,000	\$ 177,500	\$ -	
Expense	<u>427,500</u>	<u>285,000</u>	<u>142,500</u>	<u>-</u>	
Net Garbage Revenues	\$ 105,000	\$ 70,000	\$ 35,000	\$ -	
Allocated Water Portion of Net	\$ 52,500	\$ 35,000	\$ 17,500	\$ -	
Transitional Plan for Contract Net Subsidy	\$ 52,500	\$ 35,000	\$ 17,500	0	

Town of Anthony
 Water and Wastewater Department
 Cost of Service and Rate Design Study



Schedule 3
 Wastewater Revenue Requirement
 Option 1

	2020	2021	2022	2023	Inflation	Notes
Expenses						
Salaries & Wages						
Salary Parks	\$ -	\$ -	\$ -	\$ -	3%	
Salary Vehicle Maint	-	-	-	-	3%	
Salaries - Water	179,597	184,985	190,535	196,251	3%	
Salaries - Sewer	-	-	-	-	3%	
Salaries & Wages - Admin	-	-	-	-	3%	
Overtime	5,150	5,305	5,464	5,628	3%	
401(K) Match	-	-	-	-	3%	
TMRS	5,150	5,305	5,464	5,628	3%	
Payroll Taxes	-	-	-	-	3%	
Payroll Taxes - Water	-	-	-	-	3%	
Payroll Taxes - Sewer	-	-	-	-	3%	
Payroll Taxes - Parks	13,739	14,151	14,576	15,013	3%	
Payroll Taxes - Veh Main	-	-	-	-	3%	
Payroll Taxes - Admin	-	-	-	-	3%	
Health Insurance	-	-	-	-	3%	
Ins Health - Park	-	-	-	-	3%	
Ins Health - Vehicle Maint	-	-	-	-	3%	
Ins Health - Water	23,175	23,870	24,586	25,324	3%	
Ins Health - Sewer	-	-	-	-	3%	
Ins Health - Other	-	-	-	-	3%	
Garbage Contract	-	-	-	-	3%	
Engineering Fees	14,420	14,853	15,298	15,757	3%	
Other Professional Fees	10,815	11,139	11,474	11,818	3%	
Contract Labor	-	-	-	-	3%	
Lab Tests	5,150	5,305	5,464	5,628	3%	
Reps & Maint Equip	23,175	23,870	24,586	25,324	3%	

**Town of Anthony
Water and Wastewater Department
Cost of Service and Rate Design Study**



**Schedule 3
Wastewater Revenue Requirement
Option 1**

	2020	2021	2022	2023	Inflation	Notes
Water	-	-	-	-	3%	
Sewer	-	-	-	-	3%	
Reps & Maint Buildings	2,833	2,917	3,005	3,095	3%	
Reps & Maint Vehicles	8,755	9,018	9,288	9,567	3%	
Vehicle Inspection	-	-	-	-	3%	
Reps & Maint Vehicles	-	-	-	-	3%	
Reps & Maint Field Vehicle	-	-	-	-	3%	
Street Maintenance	15,450	15,914	16,391	16,883	3%	
Util/Telephone	3,605	3,713	3,825	3,939	3%	
Water	-	-	-	-	3%	
Sewer	-	-	-	-	3%	
Cell Phones	2,060	2,122	2,185	2,251	3%	
Water	-	-	-	-	3%	
Sewer	-	-	-	-	3%	
Cell Phones - Data Card	-	-	-	-	3%	
Utilities/Electric	45,835	47,210	48,626	50,085	3%	
Water	-	-	-	-	3% v	
Sewer	-	-	-	-	3%	
Utilities Electric	4,120	4,244	4,371	4,502	3%	
Advertising	-	-	-	-	3%	
Bank Charges	-	-	-	-	3%	
Credit Bank Fees	-	-	-	-	3%	
Finance Charges	5,150	5,305	5,464	5,628	3%	
Bank Charges	-	-	-	-	3%	
Dues & Subscriptions	-	-	-	-	3%	
Ice	-	-	-	-	3%	
License & Permits	-	-	-	-	3%	
Water	5,408	5,570	5,737	5,909	3%	

**Town of Anthony
Water and Wastewater Department
Cost of Service and Rate Design Study**



**Schedule 3
Wastewater Revenue Requirement
Option 1**

	2020	2021	2022	2023	Inflation	Notes
License & Permits	2,060	2,122	2,185	2,251	3%	
Office Supplies	-	-	-	-	3%	
Water	-	-	-	-	3%	
Office Supplies	-	-	-	-	3%	
Cleaning Supplies	-	-	-	-	3%	
Water	-	-	-	-	3%	
Cleaning Supplies	5,150	5,305	5,464	5,628	3%	
Postage	1,288	1,326	1,366	1,407	3%	
Computer Services Equipmt	-	-	-	-	3%	
Printing	515	530	546	563	3%	
Meals & Entertainment	-	-	-	-	3%	
Water	-	-	-	-	3%	
Meals & Entertainment	1,545	1,591	1,639	1,688	3%	
Miscellaneous	1,545	1,591	1,639	1,688	3%	
Travel & Trans	15,450	15,914	16,391	16,883	3%	
Gasoline & Oil	-	-	-	-	3%	
Water	-	-	-	-	3%	
Training & Education	-	-	-	-	3%	
Parks	-	-	-	-	3%	
Water	3,605	3,713	3,825	3,939	3%	
Training & Education	1,030	1,061	1,093	1,126	3%	
Armored Car	15,965	16,444	16,937	17,445	3%	
Chlorine Supply	-	-	-	-	3%	
Supplies Other Chemicals	1,545	1,591	1,639	1,688	3%	
Small Tools	-	-	-	-	3%	
Water	-	-	-	-	3%	
Small Tooles - Parks	5,459	5,623	5,791	5,965	3%	
Uniforms	-	-	-	-	3%	

Town of Anthony
 Water and Wastewater Department
 Cost of Service and Rate Design Study



Schedule 3
 Wastewater Revenue Requirement
 Option 1

	2020	2021	2022	2023	Inflation	Notes
Water	-	-	-	-	3%	
Uniforms	52,530	54,106	55,729	57,401	3%	
Street Rent Water	-	-	-	-	3%	
Street Rent Sewer	-	-	-	-	3%	
Streets	-	-	-	-	3%	
Water	-	-	-	-	3%	
Diagnostic Equipment	-	-	-	-	3%	
Water Meters	-	-	-	-	3%	
Safety Equipment	3,605	3,713	3,825	3,939	3%	
Reserve Fund						
Water Line Supplies	-	-	-	-	3%	
Contingency	25,750	26,523	27,318	28,138	3%	
TWDB Sewer Project						
TWDB Loan	120,000	120,000	120,000	120,000		
Water District Fee	-	-	-	-	3%	
Capital Improvements	-	-	-	-	3%	
	\$ 630,628	\$ 645,947	\$ 661,725	\$ 677,977		

Revenue Off-Sets						
Water Sales	\$ -	\$ -	\$ -	\$ -		
Water Tap Fees	-	-	-	-		
Bulk Water Sales	-	-	-	-		
Sewer Sales	-	-	-	-		
Sewer Tap Fees	-	-	-	-		
Public Service	-	-	-	-		
Garbage Fees	-	-	-	-		
Roll Offs	-	-	-	-		
Garbage Fees	-	-	-	-		

Town of Anthony
 Water and Wastewater Department
 Cost of Service and Rate Design Study



Schedule 3
 Wastewater Revenue Requirement
 Option 1

	2020	2021	2022	2023	Inflation	Notes
Reconnection Fees	6,000	6,000	6,000	6,000		
Interest Income	-	-	-	-		
Other Income	14,000	14,000	14,000	14,000		
Returned Check Fees	-	-	-	-		
Late Fees	-	-	-	-		
Service Charge Credit Card	-	-	-	-		
Other Income	-	-	-	-		
	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000		
TOTAL REVENUE REQUIREMENT	\$ 610,628	\$ 625,947	\$ 641,725	\$ 657,977		

Town of Anthony
 Water and Wastewater Department
 Cost of Service and Rate Design Study



Schedule 4
 Wastewater Revenue Requirement
 Option 2

	2020	2021	2022	2023	Inflation	Notes
Expenses						
Salaries & Wages						
Salary Parks	\$ -	\$ -	\$ -	\$ -	3%	
Salary Vehicle Maint	-	-	-	-	3%	
Salaries - Water	179,597	184,985	190,535	196,251	3%	
Salaries - Sewer	-	-	-	-	3%	
Salaries & Wages - Admin	-	-	-	-	3%	
Overtime	5,150	5,305	5,464	5,628	3%	
401(K) Match	-	-	-	-	3%	
TMRS	6,004	6,185	6,370	6,561	3%	
Payroll Taxes	-	-	-	-	3%	
Payroll Taxes - Water	-	-	-	-	3%	
Payroll Taxes - Sewer	-	-	-	-	3%	
Payroll Taxes - Parks	-	-	-	-	3%	
Payroll Taxes - Veh Main	-	-	-	-	3%	
Payroll Taxes - Admin	-	-	-	-	3%	
Health Insurance	-	-	-	-	3%	
Ins Health - Park	-	-	-	-	3%	
Ins Health - Vehicle Maint	-	-	-	-	3%	
Ins Health - Water	23,175	23,870	24,586	25,324	3%	
Ins Health - Sewer	-	-	-	-	3%	
Ins Health - Other	-	-	-	-	3%	
Garbage Contract					3%	Included in Net Below
Engineering Fees	14,420	14,853	15,298	15,757	3%	
Other Professional Fees	10,815	11,139	11,474	11,818	3%	
Contract Labor	-	-	-	-	3%	
Lab Tests	5,150	5,305	5,464	5,628	3%	
Reps & Maint Equip	23,175	23,870	24,586	25,324	3%	

**Town of Anthony
Water and Wastewater Department
Cost of Service and Rate Design Study**



**Schedule 4
Wastewater Revenue Requirement
Option 2**

	2020	2021	2022	2023	Inflation	Notes
Water	-	-	-	-	3%	
Sewer	-	-	-	-	3%	
Reps & Maint Buildings	2,833	2,917	3,005	3,095	3%	
Reps & Maint Vehicles	8,755	9,018	9,288	9,567	3%	
Vehicle Inspection	-	-	-	-	3%	
Reps & Maint Vehicles	-	-	-	-	3%	
Reps & Maint Field Vehicle	-	-	-	-	3%	
Street Maintenance	15,450	15,914	16,391	16,883	3%	
Util/Telephone	3,605	3,713	3,825	3,939	3%	
Water	-	-	-	-	3%	
Sewer	-	-	-	-	3%	
Cell Phones	2,060	2,122	2,185	2,251	3%	
Water	-	-	-	-	3%	
Sewer	-	-	-	-	3%	
Cell Phones - Data Card	-	-	-	-	3%	
Utilities/Electric	45,835	47,210	48,626	50,085	3%	
Water	-	-	-	-	3%	
Sewer	-	-	-	-	3%	
Utilities Electric	4,120	4,244	4,371	4,502	3%	
Advertising	-	-	-	-	3%	
Bank Charges	-	-	-	-	3%	
Credit Bank Fees	-	-	-	-	3%	
Finance Charges	5,150	5,305	5,464	5,628	3%	
Bank Charges	-	-	-	-	3%	
Dues & Subscriptions	-	-	-	-	3%	
Ice	-	-	-	-	3%	
License & Permits	-	-	-	-	3%	
Water	5,408	5,570	5,737	5,909	3%	

**Town of Anthony
Water and Wastewater Department
Cost of Service and Rate Design Study**



**Schedule 4
Wastewater Revenue Requirement
Option 2**

	2020	2021	2022	2023	Inflation	Notes
License & Permits	2,060	2,122	2,185	2,251	3%	
Office Supplies	-	-	-	-	3%	
Water	-	-	-	-	3%	
Office Supplies	-	-	-	-	3%	
Cleaning Supplies	-	-	-	-	3%	
Water	-	-	-	-	3%	
Cleaning Supplies	5,150	5,305	5,464	5,628	3%	
Postage	1,288	1,326	1,366	1,407	3%	
Computer Services Equipmt	-	-	-	-	3%	
Printing	515	530	546	563	3%	
Meals & Entertainment	-	-	-	-	3%	
Water	-	-	-	-	3%	
Meals & Entertainment	1,545	1,591	1,639	1,688	3%	
Miscellaneous	1,545	1,591	1,639	1,688	3%	
Travel & Trans	15,450	15,914	16,391	16,883	3%	
Gasoline & Oil	-	-	-	-	3%	
Water	-	-	-	-	3%	
Training & Education	-	-	-	-	3%	
Parks	-	-	-	-	3%	
Water	3,605	3,713	3,825	3,939	3%	
Training & Education	1,030	1,061	1,093	1,126	3%	
Armored Car	15,965	16,444	16,937	17,445	3%	
Chlorine Supply	-	-	-	-	3%	
Supplies Other Chemicals	1,545	1,591	1,639	1,688	3%	
Small Tools	-	-	-	-	3%	
Water	-	-	-	-	3%	
Small Tooles - Parks	5,459	5,623	5,791	5,965	3%	
Uniforms	-	-	-	-	3%	

Town of Anthony
 Water and Wastewater Department
 Cost of Service and Rate Design Study



Schedule 4
 Wastewater Revenue Requirement
 Option 2

	2020	2021	2022	2023	Inflation	Notes
Water	-	-	-	-	3%	
Equipment	52,530	54,106	55,729	57,401	3%	
Street Rent Water	-	-	-	-	3%	
Street Rent Sewer	-	-	-	-	3%	
Streets	-	-	-	-	3%	
Water	-	-	-	-	3%	
Diagnostic Equipment	-	-	-	-	3%	
Water Meters	-	-	-	-	3%	
Safety Equipment	3,605	3,713	3,825	3,939	3%	
Reserve Fund	-	-	-	-		
Water Line Supplies	-	-	-	-	3%	
Contingency	25,750	26,523	27,318	28,138	3%	
TWDB Sewer Project	-	-	-	-		
TWDB Loan	120,000	120,000	120,000	120,000		
Water District Fee	-	-	-	-	3%	
Capital Improvements	-	-	-	-	3%	
	<u>\$ 617,743</u>	<u>\$ 632,676</u>	<u>\$ 648,056</u>	<u>\$ 663,898</u>		

Revenue Off-Sets						
Water Sales	\$ -	\$ -	\$ -	\$ -		
Water Tap Fees	-	-	-	-		
Bulk Water Sales	-	-	-	-		
Sewer Sales	-	-	-	-		
Sewer Tap Fees	-	-	-	-		
Public Service	-	-	-	-		
Garbage Fees	-	-	-	-		
Roll Offs	-	-	-	-		
Net Garbage Fees	52,500	35,000	17,500	-		

Town of Anthony
 Water and Wastewater Department
 Cost of Service and Rate Design Study



Schedule 4
 Wastewater Revenue Requirement
 Option 2

	2020	2021	2022	2023	Inflation	Notes
Reconnection Fees	6,000	6,000	6,000	6,000		
Interest Income	-	-	-	-		
Other Income	14,000	14,000	14,000	14,000		
Returned Check Fees	-	-	-	-		
Late Fees	-	-	-	-		
Service Charge Credit Card	-	-	-	-		
Other Income	-	-	-	-		
	\$ 72,500	\$ 55,000	\$ 37,500	\$ 20,000		
TOTAL REVENUE REQUIREMENT	\$ 545,243	\$ 577,676	\$ 610,556	\$ 643,898		