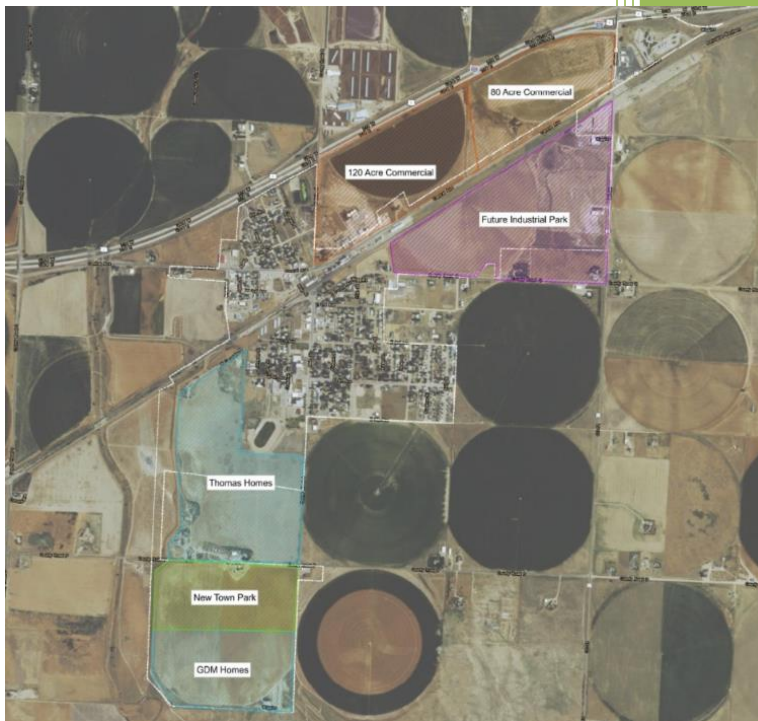


# Drinking Water & Wastewater Rate Study prepared for the Town of Wiggins, Colorado

at the request of the Town of Wiggins and USDA Rural Development



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# 1. Town of Wiggins

## Community

The town of Wiggins is an incorporated community in Morgan County, Colorado, located on I 76 an hour northeast of Denver and 20 minutes west of Ft. Morgan

Based on figures provided by the town staff, the community has 712 water customers and 682 sewer customers. With several active residential development underway the town is currently growing with an average of 40 new homes a year. The current population estimate is 1775.

The official Median Household Income (MHI) is estimated by the US Census to be \$53,438 based on the 2010 census.



## Local Government

The Town of Wiggins (hereafter called “Town” or simply Wiggins) provides water and sewer service to its residents. The duty of the Town is to purchase, store and distribute potable drinking water and control, collect and process Wastewater for the community.

This town has an elected seven-member board of trustees including the mayor, mayor pro-tem and five trustee members, which sets policy and oversees a town manager and staff. Trustees do not actively participate in the management of the utilities but do make decisions and set a budget.

## Customers

The town of Wiggins has 712 drinking water and 682 sewer customers at the time of drafting this report. These customers are billed monthly for the services. Growth over the past few years has been seen with 2 subdivisions being developed. This will continue at least for the next several years so customer growth rate for the short term is considered 6%. Some conservative scenarios ran at 3% growth.

## Current Storage/Processing Capacity

The infrastructure in Town includes one at-grade 500,000-gallon storage tank with a booster pump station, and various distribution lines. Approximately seven miles north of Town, there are two “South Platte” wells, a reverse osmosis water treatment plant and a 50,000-gallon storage tank. The Public Water system number is CO0144035. The existing facilities in reference to the Town is shown below.





The existing WWTF was originally constructed in the late 1960's and much of the original infrastructure is still in use. The original construction, for both the WWTF and much of the collection infrastructure, consisted of vitrified clay pipe (VCP) and precast concrete manholes, which are unlikely to have been lined or epoxy coated. This may result in infiltration and inflow (I/I) through the collection system and WWTF, resulting in the WWTF treating more wastewater than from domestic sources. The wastewater discharge permit number is CO0048853.

The Town of Wiggins is not under any enforcement orders as issued by the CDPHE. Currently, the WWTF is able to treat the existing hydraulic and biological loadings.

### **Current Rates**

Drinking water customers are currently charged a monthly base rate of \$69.50 and \$3.20/1000 gallons. The Sewer rates are \$30/month and flat for residential while the base is also \$30 for commercial, they are charged \$1.70/1000 gallons of consumption. There are no customer other classes and no customers outside of the town limits.

The current tap fees are not a part of the study however after RCAC provided a five-year forecast for the two enterprises it showed that the operations for the services are being supported by these tap fee when they should be going towards developing and replacing infrastructure. RCAC encouraged the board to compare their tap fees with the neighboring communities and to adjust the usage rates to primarily cover operation costs.

### **Funding of this report**

This rate study covers both the drinking water and the wastewater services and is made available at no charge to the town. This study and concluding report were prepared by Rural Community Assistance Corporation (RCAC) using funds supported under a grant by the Health and Human Services grant number 90EF0080. The sections of this report pertaining to Drinking Water are based upon work supported under a grant by the Rural Utilities Service, United States Department of Agriculture, and produced as part of the RCAP Technitrain Project.

### **Disclaimer**

The recommendations contained in this rate study are based on financial information provided to RCAC by the town. Although every effort was made to assure the reliability of this information, no warranty is expressed or implied as to the correctness, accuracy or completeness of the information contained herein.

Any opinions, findings, and conclusions or recommendations expressed in this material are solely the responsibility of the authors and do not necessarily represent the official views of the EPA, Office of Wastewater Management or USDA Rural Utilities Service.

For accounting advice, a CPA should be consulted. For legal advice, the town should seek the advice of their attorney.

## 2. Guiding Principles of this Rate Study

### Sustainability

Rates should cover the costs to the system to allow it to provide services now, and in the foreseeable future. The staff & board should stay aware of the agency funding opportunities as well as keep their capital replacement plan up to date.

### Fair

Rates should be fair to all rate payers. No single rate payer or group of rate payers should be singled out for different rates without logic & justification. While a raise in base rates means everyone will be apaying more, and by changing the costs for usage from flat to tiered, every effort was made to find an ideal price to lessen the financial burden on small (quantity) users who will not consume much.

The Town should not charge more for drinking water than the cost to provide the service, nor should customers be charged more for the sewer service than the cost to provide that service. However, the costs should include: operations, repairs, interest, loan principal, and all other costs related to the sourcing, treatment, storage and distribution of drinking water and the collection, treatment and disposal of Wastewater, now and in the foreseeable future.

Unreasonably low rates for current customers will require unreasonably high rates for future customers, which should be avoided. To keep up with inflation, all scenarios considered in this study included an annual increase to the base rate year over year for both drinking water and Wastewater.

### Justifiable

Water rates must be based on actual needs of Wiggins. Revenue generated from Wastewater rates can't be used for anything else but to pay for the costs of collecting, treating and disposal of Wastewater within its service area, plus any administrative costs. Likewise, the revenue from the drinking water can't be used to pay of anything other than the sourcing, treating, storage or distribution of the drinking water.

Therefore, the rates for drinking water and Wastewater should be clearly distinguished. The proposed rates are based on separate budgets and separate capital replacement programs for drinking water and Wastewater.

The Wiggins town staff provided separate financial information for the two services provided.

### Purpose of this study

The purposes of this study are:

- Ensure the financial strength of the town well into the future,
- Expose the need to set reserves aside for future replacement of failing components,
- Identify any other financial deficiencies of the town
- Encourage the conservation of water or forecast the cost to purchase more water rights.

## Board Decision

While this document recommends certain rates, the ultimate decision rests with the town's board of trustees. However, the Board has a fiduciary responsibility to set the rates at such a level that the Town will be able to continue to operate in the future, including providing funds to replace all parts of the respective systems as they wear out.

RCAC has met several times to present scenarios to the board over the past two years in person and virtually. At the time of drafting this report the board has yet to make a decision on the infrastructure upgrades and consequently the rate adjustments needed to finance those needed improvements. Important to understand that the longer the rates remain where they are the larger the increase will need to be to balance the finances in the long term. In other words, not making a decision to bring the revenue up to meet current and future needs, means the situation will get worse.

The decision the town manager with the support of the board, would like to advance to a board vote will be discussed in more detail further in the report. To summarize the scenarios most recently explored see below.

The scenarios discussed for Drinking Water are:

- 0) \$69.50 existing base rate and existing usage costs, 0% increase, five-year forecast which shows a \$2.3M Deficit after taking \$815K from existing reserves.
- 1) \$71.50 base rate, increased tier prices, 5% annual increases to both base and usage charges, this results in a deficit over five- years of \$1.694M.
- 2) To balance the budget rates would need to be at \$108/month with the inflation at 2.9%. With inflation set at 5% (highest limit in model) this becomes \$132/month before usage charges.
- 3) With base rates at \$97.50/month the deficit would be at \$494,182 at the end of the five-year forecast.

The scenarios discussed for the Sewer are:

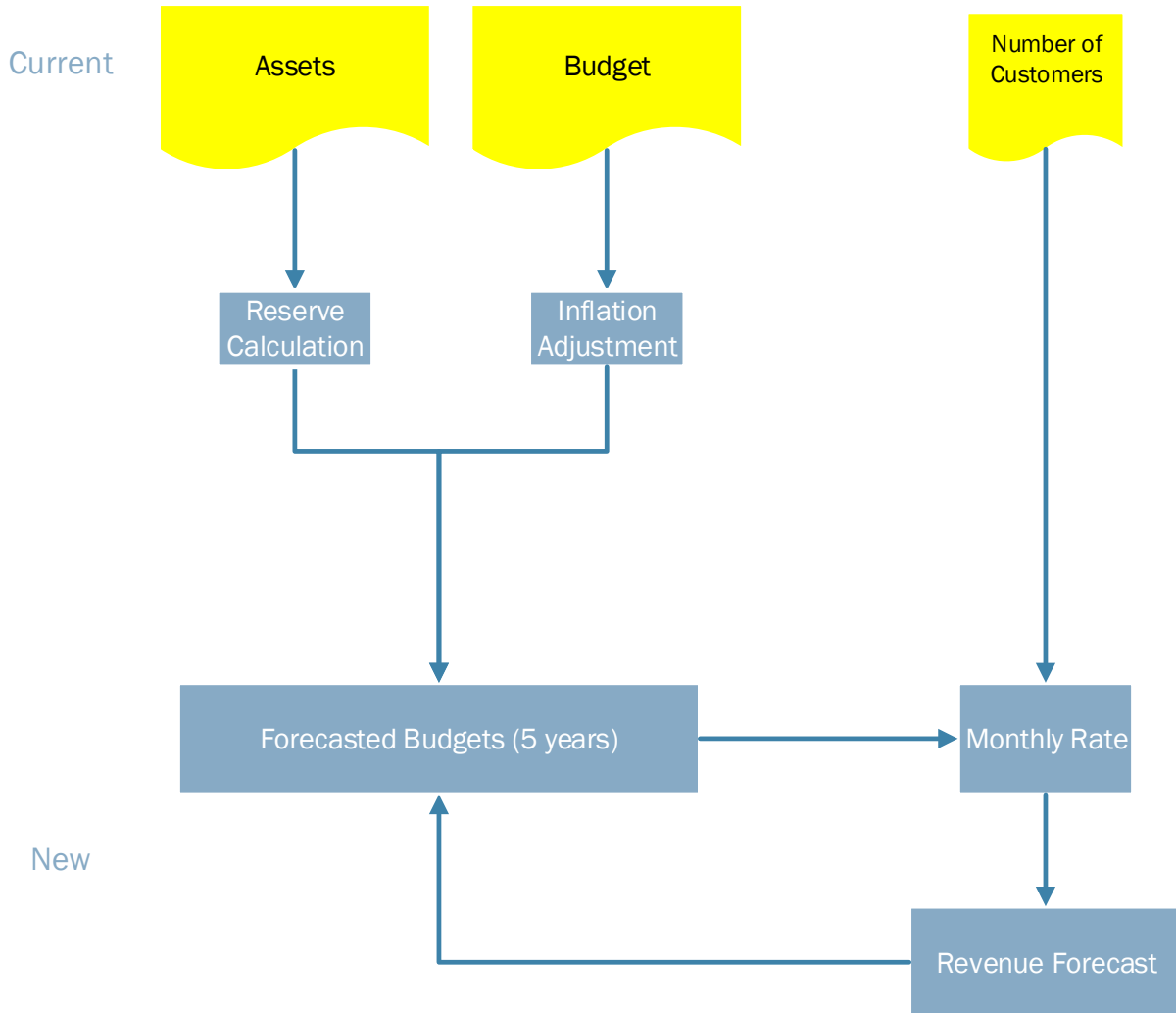
- 0) Existing rates, existing usage charges, five-year forecast resulting in a \$1.97M deficit after taking \$558K from reserves.
- 1) \$40.00 base, re-introduce the average winter usage charges to all customers at \$2.00/1000 gallon, and raise the base and usage charges by 5% each year, this results in a \$545,799 deficit over the next five-years.
- 2) To balance the budget the rate would have to be \$70.00 per month with inflation at 2.9%. With inflation set at 5% (highest limit in model) this becomes \$74/month before usage charges.



### 3. Rate Study Process

The figure<sup>1</sup> below explains the process of setting rates. The same process and model were used for drinking water and Wastewater.

We begin with the list of all capitalized assets, the current budget and the current number of customers, as provided by the town staff.



From the list of assets, the required reserves are calculated (Section 4 of this report) and fed into a 5-year Budget projection (Section 5)

The Budget is adjusted for 2.9% inflation.

<sup>1</sup> In this report all yellow cells contain data obtained outside the model. All blue cells are calculated.

This report assumes that customers growth will remain stable at about 6% for the next five years. The study does not consider conservations of water as a response to the adjustment in usage costs however this should be warned that increasing the usage charges may result in less revenue. This is typical usage pattern and studied by the American Water Works Association (AWWA), where higher rates have an initial impact on customer’s usage but over a few years the usage returns close to where it was before the rate adjustment.

<b>Growth of Consumption over Base year</b>	Year 1	Year 2	Year 3	Year 4	Year 5	
Conservation Factor	0.0%	0.0%	0.0%	0.0%	0.0%	
Community Growth Factor	6.00%	9.00%	12.00%	15.00%	18.00%	Cumulative
Total Consumption Adjustment	6.0%	9.0%	12.0%	15.0%	18.0%	

Although there may be some indirect effect on the wastewater from the water conservation, this report does not anticipate or calculate any conservation with the wastewater system.

The expenses, including the reserve requirements are then allocated among the customers. If the resulting rates are not acceptable to the board, an acceptable rate is negotiated and entered the model. The model then calculates the shortfall in the budget and resulting shortfall in the ability to replace the failing components of the water and sewer systems, respectively.

To lessen the impact on Wiggins’s customers, scenarios looked at rate increases were spread over five years for the drinking water and wastewater at 3% for base and 3% for usage as well as 5% for base and 5% for usage annually.

## 4. Capital Replacement Program

### Source of the Data

The data in the Capital Replacement Program (CRP) comes from the data supplied by the town's manager, the Public Works supervisor, and AWWA. The Capital Replacement Plan (CIP) is shown on the first sheet of the Excel model and attached as Exhibit 1 DW and Exhibit 1 WW (for Drinking Water and Wastewater respectively).

The list of the components, their installation date and their original costs or reasonable replacement or repair estimations were all supplied by the Public Works Supervisor and assistant.

The Normal Estimated Life is based on AWWA standards and adjusted for actual conditions. The Estimated Remaining Life is based on the best judgement of the director of public works and RCAC, after a visual inspection of the condition of the component and considering the potential to refurbish.

### Sources of Funding

Funding of the replacement of components can only come from cash saved by the town, a grant or a loan.

While the possibility of receiving substantial grants to replace certain components of the system is fair at this time, these possibilities will diminish over time as government funding capabilities will diminish and the goal of these programs is to foster financially sustaining utilities.

The current Median Household Income (MHI) of \$53,438 makes Wiggins a "Disadvantaged Community", which qualifies it for grant funding of many constructions or replacement projects. However, this window of grant opportunity is closing and cannot be counted on for all future replacement projects. Further the affordability of Wiggins drinking water is within the range (1.5% - 4.0% MHI) where funding agencies typically look to provide grants. In other words, the rates currently charged for the drinking water services would make a favorable case for grant funding. The current drinking water rate is at 2.21% and for wastewater it's at 0.67%.

The drinking water enterprise has healthy reserve fund at \$1,286,879 at the time of the last check with the town manager, and this will be helpful to avoid having to finance everything. However, this would nearly cover the cost to replace vehicles and heavy equipment into the future but this \$1.2M does not go very far when the water system is in need of \$20.9M in infrastructure improvements in the near future plus a \$7.1M tank project in addition to the \$22.1M worth of existing assets that will need to be managed.

The wastewater enterprise has \$1,226,430 in reserves as of the last check with the town manager. There are significant needs for line replacements and recharge ponds that are also estimated to be near \$12M, and several future costs adding up to \$17.3M in the near future. We have to also mention the \$6.3M in existing infrastructure that is aging and will need to be maintained and replaced.

The situation with both the drinking water and wastewater describe above are even more reason to fund a capital improvements/replacement plan. This study for the drinking water enterprise assumes that small items will be funded with cash and larger replacement projects will be funded with the following schedules:

**Default Funding of Drinking Water Asset Replacements**

Replacement Value From	To	Cash	Grant	Loan
\$0	\$80,000	100%	0%	0%
\$80,001	\$150,000	50%	0%	50%
\$150,001	\$300,000	30%	10%	60%
\$300,001	\$1,000,000	5%	25%	70%
\$1,000,001	\$9,999,999	2%	25%	73%

The water enterprise is in better financial health as its base rate is nearly double the wastewaters.

**Default Funding of Wastewater Asset Replacements**

Replacement Value From	To	Cash	Grant	Loan
\$0	\$80,000	100%	0%	0%
\$80,001	\$150,000	50%	0%	50%
\$150,001	\$300,000	15%	10%	75%
\$300,001	\$1,000,000	15%	25%	60%
\$1,000,001	\$9,999,999	5%	25%	70%

**Description**

The CRP provides us with a detail of the reserves needed to replace the capital assets. This process has been enlightening for the board and has the public works department prepared with a budget for continual repair and replacement of equipment.

The total line of the CRP table (Exhibit 1 DW \$315,623 and Exhibit 1 WW \$481,409) is the amount the Town must put aside each year to be able to fund the replacement of equipment for the drinking water and wastewater systems.

There are three sections in the CRP:

- Existing Capital Replacement Program: assets the water (\$22M) and wastewater (\$6.3M) enterprises currently has in place or share.
- New Project Replacement Program: There are known improvements Wiggins anticipates making improvements to the drinking water system (\$7.1M) and are currently planning large improvements/replacements to the wastewater (\$11.8M).
- Future Capital Improvement Program: The drinking water has another \$20.1M in projects and the Wastewater treatment facility will have spent a lot but has another \$17.3M on the horizon.

### Alternative

If the Town decides not to fund the annual capital reserve requirement sufficiently, the Town will have to come up with these amounts from other sources, or from steeper rate increases in future years. Now is a great time to be applying for grants and loan forgiveness. There is federal funding coming with the current infrastructure bill and Wiggins may be able to find the grant monies to come closer to a balanced budget in regard to future capital needs.

It will require a substantial effort of the Town's staff to obtain grants and low interest loans. The amount of grants obtained for future projects has a large impact on the rates. Therefore, this study recommends a new rate study when new loans or grants are obtained, and projects are significantly complete.





Exhibit 1 WW CIP

Capital Replacement Program		AWWA Cash-Needs Approach			SEWER					Exhibit 1
Town of Wiggins										7/13/22
										CO0048853
										686
Quantity	Asset	Year Acquired	Unit Cost (Historic, Current or Future)	Estimated Remaining Life	Estimated Future Cost	Fund with Cash	Fund with Grant	Fund with Loan	Annual Reserve Required	
<b>Replacement of Existing Capital Assets</b>										
7,850	8" Clay Pipe	1975	96	5	961,806	15%	25%	60%	-24,752	
25,788	Concrete Pipe	1983	90	15	4,825,026	5%	25%	70%	-2,717	
14,972	PVC Pipe	2017	90	97	153,067,975	5%	25%	70%	59,863	
			-			0%	0%	100%	0	
58	Manholes (old town)	1975	12,000	30	3,008,072	5%	25%	70%	1,924	
38	Manholes (new development)	2016	12,000	30	1,970,806	5%	25%	70%	1,260	
			-			0%	0%	100%	0	
	Wastewater Treatment Plant - Building	2005	299,400	5	0	100%	0%	0%	Not Cap.	
	Wastewater Treatment Plant - Lab/Cholorine/RAS/Headgates	2005	12,600	19	0	100%	0%	0%	Not Cap.	
		2013	74,760	12	0	100%	0%	0%	Not Cap.	
	Wastewater Treatment Plant - Effluent Channel	2005	335,160	0	0	100%	0%	0%	0	
	Wastewater Treatment Plant - Wasting Pond Liner	1975	105,960	30	0	100%	0%	0%	Not Cap.	
	Wastewater Treatment Plant - Wastetrack Digester	1979	610,680	32	0	100%	0%	0%	Not Cap.	
	Wastewater Treatment Plant - Clerifier	2005	45,960	15	0	100%	0%	0%	Not Cap.	
	Wastewater Treatment Plant - Wasting Clarifier	1979	439,320	31	0	100%	0%	0%	Not Cap.	
	Detention Pond Pump Station	1975	920,760	42	0	100%	0%	0%	Not Cap.	
1	Lift Station Central Ave (Highway 6)	1990	347,040	40	2,443,158	5%	25%	70%	1,743	
1	Augmentation Basin Monitoring Wells (3)	2000	60,000	22	175,516	15%	10%	75%	170	
1	Johnson Street Lift Station	2017	334,764	47	3,316,163	5%	25%	70%	2,298	
<b>Subtotal Replacement of Existing Capital Assets</b>					169,768,521	5%	25%	70%	39,790	
Quantity	Asset	Year Acquired	Unit Cost (Current or Future)	Estimated Remaining Life	Estimated Future Cost	Fund with Cash	Fund with Grant	Fund with Loan	Annual Reserve Required	
<b>Replacement of Funded Project Assets</b>										
1	WWTF Phase I: Recharge Ponds + Effluent Line W	2023	11,800,000	53	156,644,394	5%	25%	70%	129,428	
<b>Subtotal Replacement of Funded Project Assets</b>					156,644,394	5%	25%	70%	129,428	
Enter Existing Reserves for Replacement of Funded Project Assets										
Quantity	Asset	Year to be Purchased	Unit Cost (Current or Future)		Estimated Future Cost	Fund with Cash	Fund with Grant	Fund with Loan	Annual Reserve Required	
<b>Reserves for Additional Capital Assets</b>										
1	Ford 150 (33% for sewer)	2025	66,000		25,213	100%	0%	0%	8,362	
1	Ford 150 (33% for sewer)	2026	66,000		26,474	100%	0%	0%	6,569	
1	Ford 150 (33% for sewer)	2027	66,000		27,797	100%	0%	0%	5,504	
1	Back Hoe (50% for sewer)	2024	48,000		26,460	100%	0%	0%	13,197	
1	Dump Truck (50% for sewer)	2024	60,000		33,075	100%	0%	0%	16,496	
1	Vac (50% for sewer)	2024	120,000		66,150	100%	0%	0%	32,993	
1	WWTF Phase II Forced Main, Line Replacement, V	2026	9,781,000		11,888,867	5%	25%	70%	147,501	
1	WWTF Phase III WWTP + Misc Recharge Ponds	2028	7,396,000		9,911,347	5%	25%	70%	81,568	
<b>Subtotal Reserves for Additional Capital Assets</b>					22,005,383	6%	25%	69%	312,190	
Enter Existing Reserves for Additional Capital Assets										
<b>Total Capital Reserves</b>					348,418,298	5%	25%	70%	481,409	

## 5. Budget

### Source

All expenses shown in Exhibit 2 DW and Exhibit 2 WW (5-Year Budget sheet) are based on the Town's 2021 Budget. This Budget was then entered into each separate model for the drinking water and the wastewater rates. The budgets shown below are with the current base rate of \$69.50 for water and \$30.00 for sewer

The Capital Replacement Program amount comes from the Reserves sheets where shared equipment is allocated a percentage responsibility for replacement costs.

The Cash Revenue shown is a calculated number based on:

- Rates entered on the Rates sheet
- 2021-year end number of customer
- Current debt service
- An annual inflation factor of 2.90% (current reality suggests this should be above 5%)

### Reserve Funding

There are four types of reserves the Town must consider:

1. **Debt Reserve:** Your loan conditions for the drinking water enterprise requires that you keep \$977,285 in a Debt Reserve Account. Of that the wastewater has \$529,671 put aside. The wastewater loans require \$472,552 in debt reserves, while the wastewater enterprise has \$159,432 saved. These debts are considered in each respective rate model. Nuance here in the sinking fund debt with the Bank of the West, those reserves will be available when the bridge loan closes and the permanent financing start.
2. **Operating Reserve:** Operating reserves are established to provide the Town with the ability to withstand short term cash-flow fluctuations. A 45-day operating reserve is a frequently used industry norm. The drinking water budget (excluding reserves) puts the target operations reserve at \$43,364. The Wastewater Budget (excluding Reserves) requires \$30,361 in operating reserve. All of these reserve targets are achieved over a ten-year period.
3. **Emergency Reserve:** Emergency reserves are intended to help utilities deal with short-term emergencies, such as main breaks or pump failures. An emergency is intended to fund the immediate replacement or reconstruction of the system's single most critical asset. We estimate that \$100,000 would be sufficient for emergency reserves for each the drinking water and the Wastewater system again, these reserve targets are achieved over a ten-year period with steady contributions.
4. **Capital Replacement Reserve:** This reserve is strictly to be used to fund the water and wastewater portions of any replacement of capital assets that wear out. The annual reserve requirement of the Capital Replacement Program was calculated in the previous section of this report, and adjusted for the existing Capital Reserves, as shown here.

**Exhibit 2 DW Budget**

Budget										Date:	06/02/22	Exhibit 2
Town of Wiggins										Inflation Factor (%):	2.90	
										Loan Interest Rate (%):	4.50	
										System Number:	CO0048853	
EXPENSES AND SOURCES OF FUNDS	2019	2020	2021	% Belonging to Water	2022	2023	2024	2025	2026			
<b>OPERATIONS &amp; MAINTENANCE EXPENSES</b>												
20-431-22 Equipment Repairs & Maint	3,888	10,000	5,000	100%	5,145	5,294	5,448	5,606	5,768			
20-431-62 Fuel	4,365	5,800	6,000	100%	6,174	6,353	6,537	6,727	6,922			
20-431-74 Equipment	385	8,000	0	100%	0	0	0	0	0			
20-431-75 Vehicle Repair	3,884	7,500	5,000	100%	5,145	5,294	5,448	5,606	5,768			
20-432-00 Line Maintenance	1,362	5,000	5,000	100%	5,145	5,294	5,448	5,606	5,768			
20-432-30 Contract Operator	3,600	6,800	6,000	100%	6,174	6,353	6,537	6,727	6,922			
20-432-35 Copier Lease			477	100%	491	505	520	535	550			
20-432-37 Analytical/Sampling Expense			10,000	100%	10,290	10,588	10,895	11,211	11,537			
20-432-39 GIS Mapping			1,125	100%	1,158	1,191	1,226	1,261	1,298			
20-432-40 Telephone & Internet			800	100%	823	847	872	897	923			
20-432-41 Utilities Electric	56,319	58,000	65,000	100%	66,885	68,825	70,821	72,874	74,988			
20-432-45 Utilities Gas			5,000	100%	5,145	5,294	5,448	5,606	5,768			
20-432-46 Cell Phone			746	100%	768	790	813	836	861			
20-432-48 Trash			100	100%	103	106	109	112	115			
20-432-49 Utilities Propane			4,500	100%	4,631	4,765	4,903	5,045	5,191			
20-432-50 Permit Fees			1,000	100%	1,029	1,059	1,090	1,121	1,154			
20-432-52 Insurance and Bonds	5,353	13,208	10,000	100%	10,290	10,588	10,895	11,211	11,537			
20-432-53 Booster Station Maintenance			20,000	100%	20,580	21,177	21,791	22,423	23,073			
20-432-54 Water Main Installation EXP		7,500	7,500	100%	7,718	7,941	8,172	8,409	8,652			
20-432-55 Meter Main Install Expense	33,508	20,000	20,000	100%	20,580	21,177	21,791	22,423	23,073			
20-432-56 Maintenance Plant RO	5,069	8,500	70,000	100%	72,030	74,119	76,268	78,480	80,756			
20-432-57 Treatment/Operating Supplies	19,971	25,000	7,500	100%	7,718	7,941	8,172	8,409	8,652			
20-432-59 Water Well Maintenance			1,000	100%	1,029	1,059	1,090	1,121	1,154			
20-432-61 Office Supplies	2,032	2,500	1,500	100%	1,544	1,588	1,634	1,682	1,730			
20-432-68 Copier Expense			390	100%	401	413	425	437	450			
20-432-70 IT support			500	100%	515	529	545	561	577			
				100%	0	0	0	0	0			
20-432-75 System Repair & Maintenance	0	0	7,000	100%	7,203	7,412	7,627	7,848	8,076			
20-432-85 Water Leases	60,000	60,000	70,000	100%	72,030	74,119	76,268	78,480	80,756			
20-432-87 Equipment	8,442	20,000	5,000	100%	5,145	5,294	5,448	5,606	5,768			
20-432-99 Other Misc Expense	6,612	2,500	1,000	100%	1,029	1,059	1,090	1,121	1,154			
<b>Total Operation and Maintenance Expenses:</b>	<b>214,790</b>	<b>260,308</b>	<b>337,138</b>		<b>346,915</b>	<b>356,976</b>	<b>367,328</b>	<b>377,980</b>	<b>388,942</b>			
<b>GENERAL &amp; ADMINISTRATIVE EXPENSES</b>												
	2019	2020	2021	%	2022	2023	2024	2025	2026			
Operating Reserve Funding					0	0	0	0	0			
Emergency Reserve Funding					0	0	0	0	0			
Debt Reserve Funding			182,774		209,258	26,484	26,484	26,484	26,484			
Replacement of Existing Capital Assets					121,070	121,070	105,234	102,986	102,986			
Replacement of Funded Project Assets					11,398	11,398	11,398	11,398	11,398			
Reserves for Additional Capital Assets					183,155	143,094	143,094	90,808	16,376			
Debt Service			432,162		838,968	641,091	641,091	1,007,681	1,340,636			
20-410-13 Financial Audit	3,200	3,200	4,000	100%	4,116	4,235	4,358	4,485	4,615			
20-410-30 Legal			5,000	100%	5,145	5,294	5,448	5,606	5,768			
20-410-31 Legal Services	57,270	65,991	95,000	100%	97,755	100,590	103,507	106,509	109,597			
20-410-32 Professional Services Water Rights En	120,692	10,000	135,000	100%	138,915	142,944	147,089	151,354	155,744			
20-410-33 Postage		2,000	2,000	100%	2,058	2,118	2,179	2,242	2,307			
20-410-34 Water Deposit Refund		1,000	2,000	100%	2,058	2,118	2,179	2,242	2,307			
20-410-38 Professional Services Accountant	50,522	63,150	10,000	100%	10,290	10,588	10,895	11,211	11,537			
20-410-40 Travel, Meetings & Trainings		4,000	4,000	100%	4,116	4,235	4,358	4,485	4,615			
20-410-59 Design/System engineering			100,000	100%	102,900	105,884	108,955	112,114	115,366			
				100%	0	0	0	0	0			
20-411-12 Employee Salary-Administration		72,000	67,000	100%	68,943	70,942	73,000	75,117	77,295			
20-411-15 Administration Dept Employees			7,000	100%	7,203	7,412	7,627	7,848	8,076			
20-411-20 Employment Benefits		9,000	10,000	100%	10,290	10,588	10,895	11,211	11,537			
20-411-22 FICA & Medicare		3,200	5,500	100%	5,660	5,824	5,993	6,166	6,345			
20-411-23 457 Retirement		1,150	3,005	100%	3,092	3,182	3,274	3,369	3,467			
20-411-25 Unemployment Ins		592	200	100%	206	212	218	224	231			
20-411-26 Worker's compensation		0	150	100%	154	159	163	168	173			
20-411-72 Utility Billing Software			3,000	100%	3,087	3,177	3,269	3,363	3,461			
				100%	0	0	0	0	0			
20-430-11 Salary-PW Maintenance	2,698	5,000	37,000	100%	38,073	39,177	40,313	41,482	42,685			
20-430-15 Empl Salary-PW P/T Seasonal	1,010	3,000	4,200	100%	4,322	4,447	4,576	4,709	4,845			
20-430-20 Employee Benefits	2,372	3,101	9,000	100%	9,261	9,530	9,806	10,090	10,383			
20-430-22 FICA & Medicare		2,000	3,150	100%	3,241	3,335	3,432	3,532	3,634			
20-430-23 457 Retirement		1,000	1,150	100%	1,183	1,218	1,253	1,289	1,327			
20-430-25 Unemployment Insurance			125	100%	129	132	136	140	144			
20-430-26 Workers Compensation		2,920	3,345	100%	3,442	3,542	3,645	3,750	3,859			
20-432-73 Capital Outlay	250,000	610,000	0		8,000,000	50,000	50,000	50,000	50,000			
<b>Total General and Administrative Expenses:</b>	<b>487,764</b>	<b>862,303</b>	<b>1,125,761</b>		<b>9,889,488</b>	<b>1,534,020</b>	<b>1,533,870</b>	<b>1,862,067</b>	<b>2,137,197</b>			
<b>TOTAL EXPENSES</b>	<b>702,554</b>	<b>1,122,612</b>	<b>1,462,899</b>		<b>10,236,403</b>	<b>1,890,995</b>	<b>1,901,198</b>	<b>2,240,047</b>	<b>2,526,139</b>			

SOURCE OF FUNDS / REVENUES RECEIVED									
Sales Revenue (Base + Usage)	571,000	686,569	830,000		972,438	1,034,360	1,100,092	1,169,840	1,243,895
New connections				100%	0	0	0	0	0
Interest income			0	100%	0	0	0	0	0
Uncollectable Receivables					0	0	0	0	0
Reconnect/Admin			0	100%	0	0	0	0	0
Fees Late/NSF			0	100%	0	0	0	0	0
Bulk Sales			0	100%	0	0	0	0	0
20-34001 Customer Deposits	5,500	58,230	0	100%	0	0	0	0	0
20-34002 Bulk Water Sales	5,000	21,922	3,000	100%	3,087	3,177	3,269	3,363	3,461
20-34440 Tap Fees & Acquisitions Fees				100%	0	0	0	0	0
20-34450 Misc Water Income	16,743	18,395	5,000	100%	5,145	5,294	5,448	5,606	5,768
20-36000 Water Development Agreement	125,193	325	0	100%	0	0	0	0	0
20-36001 Rental Income	24,833	12,516	10,000	100%	10,290	10,588	10,895	11,211	11,537
20-36100 Interest Earned	454	550	0	100%	0	0	0	0	0
20-39101 Loan Grant Proceeds	0	0	0	100%	0	0	0	0	0
				100%	0	0	0	0	0
USDA Grant & Loan Proceeds				100%	8,000,000	0	0	0	0
				100%	0	0	0	0	0
20-31003 & 20-31003 Loan Proceeds USDA			0	100%	0	0	0	0	0
20-34440 Tap Fees & Acquisitions Fees	721,000	747,500	500,000		\$ 800,000	\$ 800,000	\$ 400,000	\$ 400,000	\$ 400,000
20-36002 Sale of Assets & 20-39102 Trans f	0	130,000	-11,900		456,935	75,000	50,000	50,000	50,000
<b>TOTAL REVENUE</b>	<b>1,469,723</b>	<b>1,676,007</b>	<b>1,336,100</b>		<b>10,247,895</b>	<b>1,928,419</b>	<b>1,569,704</b>	<b>1,640,021</b>	<b>1,714,661</b>
<b>NET LOSS OR GAIN:</b>	<b>767,169</b>	<b>553,395</b>	<b>-126,799</b>		<b>11,491</b>	<b>37,424</b>	<b>-331,494</b>	<b>-600,026</b>	<b>-811,478</b>
<b>NET CASH FLOW (Contribution to Reserves)</b>	<b>767,169</b>	<b>553,395</b>	<b>55,975</b>		<b>536,372</b>	<b>339,469</b>	<b>-45,284</b>	<b>-368,349</b>	<b>-654,234</b>
Affordability assuming MHI of \$53438 for residential meters.					2.37%	2.52%	2.67%	2.84%	3.01%
Does the Budget Balance?					Yes	Yes	No	No	No
Positive Annual Cash Flow?					Yes	Yes	No	No	No

**Exhibit 2 WW Budget**

Budget		Date: 06/02/22 Exhibit 2					
Town of Wiggins		Inflation Factor (%): 2.90					
		Loan Interest Rate (%): 4.50					
		System Number: CO0048853					
EXPENSES AND SOURCES OF FUNDS	2022	% Belonging to Sewer	2023	2024	2025	2026	2027
<b>OPERATIONS &amp; MAINTENANCE EXPENSES</b>							
30-431-22 EQUIPMENT MTNCE & REPAIRS	20,000	100%	20,580	21,177	21,791	22,423	23,073
30-431-41 UTILITIES-ELECTRIC	11,000	100%	11,319	11,647	11,985	12,333	12,690
30-431-45 UTILITIES-GAS	400	100%	412	424	436	448	461
30-431-48 TRASH	900	100%	926	953	981	1,009	1,038
30-431-51 WWTP ENGINEERING & CONTINGEN	4,000	100%	4,116	4,235	4,358	4,485	4,615
30-431-59 ENGINEERING DESIGN	14,000	100%	14,406	14,824	15,254	15,696	16,151
30-431-62 FUEL	3,500	100%	3,602	3,706	3,813	3,924	4,038
30-431-75 VEHICLE REPAIRS	5,000	100%	5,145	5,294	5,448	5,606	5,768
30-432-00 LINE MAINTENANCE	12,000	100%	12,348	12,706	13,075	13,454	13,844
30-432-30 CONTRACT OPERATOR	6,000	100%	6,174	6,353	6,537	6,727	6,922
30-432-39 COMPUTER SOFTWARE-GIS	1,300	100%	1,338	1,376	1,416	1,457	1,500
30-432-41 UTILITIES(ELECTRIC)	25,000	100%	25,725	26,471	27,239	28,029	28,841
30-432-42 TELEPHONE/INTERNET	800	100%	823	847	872	897	923
30-432-45 UTILITIES -GAS	100	100%	103	106	109	112	115
30-432-46 CELL PHONE	800	100%	823	847	872	897	923
30-432-50 PERMIT FEES	1,650	100%	1,698	1,747	1,798	1,850	1,904
30-432-51 ANALYTICAL/SAMPLING EXPENS	4,500	100%	4,631	4,765	4,903	5,045	5,191
30-432-52 INSURANCE AND BONDS	12,700	100%	13,068	13,447	13,837	14,239	14,651
30-432-53 SEWER CLEANING/VIDEO	15,000	100%	15,435	15,883	16,343	16,817	17,305
30-432-55 GENERAL MAINT CENT LIFT ST	1,000	100%	1,029	1,059	1,090	1,121	1,154
30-432-56 GENERAL MAINT OF PLANT	2,500	100%	2,573	2,647	2,724	2,803	2,884
30-432-57 GENERAL MAINT JOHNSON LT	2,000	100%	2,058	2,118	2,179	2,242	2,307
30-432-58 STORM WATER-LIFT STATION	6,000	100%	6,174	6,353	6,537	6,727	6,922
30-432-59 ENGINEERING DESIGN	15,000	100%	15,435	15,883	16,343	16,817	17,305
30-432-60 TREATMENT OPERATIONS	13,000	100%	13,377	13,765	14,164	14,575	14,998
30-432-61 OFFICE SUPPLIES	1,500	100%	1,544	1,588	1,634	1,682	1,730
30-432-99 OTHER MISCELLANEOUS EXPE	1,000	100%	1,029	1,059	1,090	1,121	1,154
Line Replacement	331,730						
Engineering Design	20,000		50,000	500,000	25,000	25,000	25,000
Legal Fees	6,500		7,000	5,000	5,000	5,000	5,000
30-432-75 CAPITAL OUTLAY - LINES, 30-43	391,730						
<b>Total Operation and Maintenance Expenses:</b>	<b>930,610</b>		<b>242,889</b>	<b>696,280</b>	<b>226,827</b>	<b>232,535</b>	<b>238,408</b>
<b>GENERAL &amp; ADMINISTRATIVE EXPENSES</b>							
Operating Reserve Funding			0	0	0	0	0
Emergency Reserve Funding			0	0	0	0	0
Debt Reserve Funding			126,971	20,683	20,683	20,683	20,683
Replacement of Existing Capital Assets			-23,614	-23,614	-23,614	-23,614	-23,614
Replacement of Funded Project Assets			44,362	44,362	44,362	44,362	44,362
Reserves for Additional Capital Assets			287,415	287,415	227,212	219,341	77,232
Debt Service			206,832	206,832	206,832	206,832	593,190
30-410-13 FINANCIAL AUDIT	4,000	100%	4,116	4,235	4,358	4,485	4,615
30-410-30 LEGAL SERVICE	6,500	100%	6,689	6,882	7,082	7,287	7,499
30-410-32 PROFESSIONAL SERVICES	15,000	100%	15,435	15,883	16,343	16,817	17,305
30-410-33 POSTAGE	2,000	100%	2,058	2,118	2,179	2,242	2,307
30-410-34 SEWER DEPOSIT REFUND	500	100%	515	529	545	561	577
30-410-35 COPIER LEASE	500	100%	515	529	545	561	577
30-410-40 TRAINING	3,000	100%	3,087	3,177	3,269	3,363	3,461
30-410-67 OFFICE SUPPLIES	500	100%	515	529	545	561	577
30-410-68 COPIER EXPENSE	400	100%	412	424	436	448	461
30-411-14 EMPL SALARY'S-ADMINISTRATION	70,000	100%	72,030	74,119	76,268	78,480	80,756
30-411-15 ADMINISTRATION DEPT EMPLOYEES	6,000	100%	6,174	6,353	6,537	6,727	6,922
30-411-20 EMPLOYEE BENEFITS	10,000	100%	10,290	10,588	10,895	11,211	11,537
30-411-22 FICA & MEDICARE	5,000	100%	5,145	5,294	5,448	5,606	5,768
30-411-23 457 RETIREMENT	3,000	100%	3,087	3,177	3,269	3,363	3,461
30-411-25 UNEMPLOYMENT INSURANCE	200	100%	206	212	218	224	231
30-411-26 WORKERS' COMPENSATION	150	100%	154	159	163	168	173
30-411-70 IT SUPPORT	250	100%	257	265	272	280	288
30-411-72 UTILITY SOFTWARE EXP	3,000	100%	3,087	3,177	3,269	3,363	3,461
30-430-11 SALARY-PW MAINTENANCE	3,300	100%	3,396	3,494	3,596	3,700	3,807
30-430-12 SALARY-PW MAINTENANCE	45,300	100%	46,614	47,965	49,356	50,788	52,261
30-430-13 EMPL SALARY-PW/P/T SEASONAL	4,250	100%	4,373	4,500	4,631	4,765	4,903
30-430-20 EMPLOYEE BENEFITS	10,500	100%	10,805	11,118	11,440	11,772	12,113
30-430-22 FICA & MEDICARE	4,700	100%	4,836	4,977	5,121	5,269	5,422
30-430-23 457 RETIREMENT	1,400	100%	1,441	1,482	1,525	1,570	1,615
30-430-25 UNEMPLOYMENT	150	100%	154	159	163	168	173
30-430-26 WORKERS' COMPENSATION	8,000	100%	8,232	8,471	8,716	8,969	9,229
DOLA Contribution Match			400,000				
<b>Total General and Administrative Expenses:</b>	<b>207,600</b>		<b>1,255,587</b>	<b>755,494</b>	<b>701,665</b>	<b>700,354</b>	<b>951,352</b>
<b>TOTAL EXPENSES</b>	<b>1,138,210</b>		<b>1,498,476</b>	<b>1,451,773</b>	<b>928,492</b>	<b>932,889</b>	<b>1,189,761</b>

Budget			Date: 07/13/22 Exhibit 2				
Town of Wiggins			Inflation Factor (%): 5.00				
			Loan Interest Rate (%): 4.50				
			System Number: CO0048853				
EXPENSES AND SOURCES OF FUNDS	2022	% Belonging to Sewer	2023	2024	2025	2026	2027
<b>OPERATIONS &amp; MAINTENANCE EXPENSES</b>							
30-431-22 EQUIPMENT MTNCE & REPAIRS	20,000	100%	21,000	22,050	23,153	24,310	25,526
30-431-41 UTILITIES-ELECTRIC	11,000	100%	11,550	12,128	12,734	13,371	14,039
30-431-45 UTILITIES-GAS	400	100%	420	441	463	486	511
30-431-48 TRASH	900	100%	945	992	1,042	1,094	1,149
30-431-51 WWTP ENGINEERING & CONTINGEN	4,000	100%	4,200	4,410	4,631	4,862	5,105
30-431-59 ENGINEERING DESIGN	14,000	100%	14,700	15,435	16,207	17,017	17,868
30-431-62 FUEL	3,500	100%	3,675	3,859	4,052	4,254	4,467
30-431-75 VEHICLE REPAIRS	5,000	100%	5,250	5,513	5,788	6,078	6,381
30-432-00 LINE MAINTENANCE	12,000	100%	12,600	13,230	13,892	14,586	15,315
30-432-30 CONTRACT OPERATOR	6,000	100%	6,300	6,615	6,946	7,293	7,658
30-432-39 COMPUTER SOFTWARE-GIS	1,300	100%	1,365	1,433	1,505	1,580	1,659
30-432-41 UTILITIES(ELECTRIC)	25,000	100%	26,250	27,563	28,941	30,388	31,907
30-432-42 TELEPHONE/INTERNET	800	100%	840	882	926	972	1,021
30-432-45 UTILITIES -GAS	100	100%	105	110	116	122	128
30-432-46 CELL PHONE	800	100%	840	882	926	972	1,021
30-432-50 PERMIT FEES	1,650	100%	1,733	1,819	1,910	2,006	2,106
30-432-51 ANALYTICAL/SAMPLING EXPENSE	4,500	100%	4,725	4,961	5,209	5,470	5,743
30-432-52 INSURANCE AND BONDS	12,700	100%	13,335	14,002	14,702	15,437	16,209
30-432-53 SEWER CLEANING/VIDEO	15,000	100%	15,750	16,538	17,364	18,233	19,144
30-432-55 GENERAL MAINT CENT LIFT ST	1,000	100%	1,050	1,103	1,158	1,216	1,276
30-432-56 GENERAL MAINT OF PLANT	2,500	100%	2,625	2,756	2,894	3,039	3,191
30-432-57 GENERAL MAINT JOHNSON LT	2,000	100%	2,100	2,205	2,315	2,431	2,553
30-432-58 STORM WATER-LIFT STATION	6,000	100%	6,300	6,615	6,946	7,293	7,658
30-432-59 ENGINEERING DESIGN	15,000	100%	15,750	16,538	17,364	18,233	19,144
30-432-60 TREATMENT OPERATIONS	13,000	100%	13,650	14,333	15,049	15,802	16,592
30-432-61 OFFICE SUPPLIES	1,500	100%	1,575	1,654	1,736	1,823	1,914
30-432-99 OTHER MISCELLANEOUS EXPE	1,000	100%	1,050	1,103	1,158	1,216	1,276
Line Replacement	331,730						
Engineering Design	20,000		50,000	500,000	25,000	25,000	25,000
Legal Fees	6,500		7,000	5,000	5,000	5,000	5,000
30-432-75 CAPITAL OUTLAY - LINES, 30-43	391,730						
<b>Total Operation and Maintenance Expenses:</b>	<b>930,610</b>		<b>246,683</b>	<b>704,167</b>	<b>239,125</b>	<b>249,581</b>	<b>260,560</b>
<b>GENERAL &amp; ADMINISTRATIVE EXPENSES</b>							
Operating Reserve Funding			0	0	0	0	0
Emergency Reserve Funding			0	0	0	0	0
Debt Reserve Funding			126,971	20,683	20,683	20,683	20,683
Replacement of Existing Capital Assets			39,790	39,790	39,790	39,790	39,790
Replacement of Funded Project Assets			129,428	129,428	129,428	129,428	129,428
Reserves for Additional Capital Assets			312,190	312,190	249,505	241,142	87,072
Debt Service			206,832	206,832	206,832	206,832	625,708
30-410-13 FINANCIAL AUDIT	4,000	100%	4,200	4,410	4,631	4,862	5,105
30-410-30 LEGAL SERVICE	6,500	100%	6,825	7,166	7,525	7,901	8,296
30-410-32 PROFESSIONAL SERVICES	15,000	100%	15,750	16,538	17,364	18,233	19,144
30-410-33 POSTAGE	2,000	100%	2,100	2,205	2,315	2,431	2,553
30-410-34 SEWER DEPOSIT REFUND	500	100%	525	551	579	608	638
30-410-35 COPIER LEASE	500	100%	525	551	579	608	638
30-410-40 TRAINING	3,000	100%	3,150	3,308	3,473	3,647	3,829
30-410-67 OFFICE SUPPLIES	500	100%	525	551	579	608	638
30-410-68 COPIER EXPENSE	400	100%	420	441	463	486	511
30-411-14 EMPL SALARY'S-ADMINISTRATION	70,000	100%	73,500	77,175	81,034	85,085	89,340
30-411-15 ADMINISTRATION DEPT EMPLOYEES	6,000	100%	6,300	6,615	6,946	7,293	7,658
30-411-20 EMPLOYEE BENEFITS	10,000	100%	10,500	11,025	11,576	12,155	12,763
30-411-22 FICA & MEDICARE	5,000	100%	5,250	5,513	5,788	6,078	6,381
30-411-23 457 RETIREMENT	3,000	100%	3,150	3,308	3,473	3,647	3,829
30-411-25 UNEMPLOYMENT INSURANCE	200	100%	210	221	232	243	255
30-411-26 WORKERS' COMPENSATION	150	100%	158	165	174	182	191
30-411-70 IT SUPPORT	250	100%	263	276	289	304	319
30-411-72 UTILITY SOFTWARE EXP	3,000	100%	3,150	3,308	3,473	3,647	3,829
30-430-11 SALARY-PW MAINTENANCE	3,300	100%	3,465	3,638	3,820	4,011	4,212
30-430-12 SALARY-PW MAINTENANCE	45,300	100%	47,565	49,943	52,440	55,062	57,816
30-430-13 EMPL SALARY-PW P/T SEASONAL	4,250	100%	4,463	4,686	4,920	5,166	5,424
30-430-20 EMPLOYEE BENEFITS	10,500	100%	11,025	11,576	12,155	12,763	13,401
30-430-22 FICA & MEDICARE	4,700	100%	4,935	5,182	5,441	5,713	5,999
30-430-23 457 RETIREMENT	1,400	100%	1,470	1,544	1,621	1,702	1,787
30-430-25 UNEMPLOYMENT	150	100%	158	165	174	182	191
30-430-26 WORKERS' COMPENSATION	8,000	100%	8,400	8,820	9,261	9,724	10,210
DOLA Contribution Match			400,000				
<b>Total General and Administrative Expenses:</b>	<b>207,600</b>		<b>1,433,192</b>	<b>937,803</b>	<b>886,561</b>	<b>890,215</b>	<b>1,167,638</b>
<b>TOTAL EXPENSES</b>	<b>1,138,210</b>		<b>1,679,874</b>	<b>1,641,969</b>	<b>1,125,686</b>	<b>1,139,796</b>	<b>1,428,198</b>



SOURCE OF FUNDS / REVENUES RECEIVED							
30-34000 Sales Revenue (Base + Usage)	220,000		496,106	525,869	557,367	590,701	625,976
New connections		100%	0	0	0	0	0
Interest income	50	100%	53	55	58	61	64
30-33420 DOLA EIF G,		100%	800,000	0	0	0	0
DOLA WWT Grant		100%	400,000	0	0	0	0
American Rescue Grant		100%	73,580	0	0	0	0
<b>TAP FEES</b>	<b>448,580</b>		<b>320,000</b>	<b>320,000</b>	<b>160,000</b>	<b>160,000</b>	<b>160,000</b>
Transfer from Sales Tax Fund Debt Reserve	85,000		\$ 265,720				
<b>TOTAL REVENUE</b>	<b>753,630</b>		<b>2,355,458</b>	<b>845,924</b>	<b>717,425</b>	<b>750,762</b>	<b>786,039</b>
<b>NET LOSS OR GAIN:</b>	<b>-384,580</b>		<b>675,584</b>	<b>-796,046</b>	<b>-408,261</b>	<b>-389,034</b>	<b>-642,159</b>
<b>NET CASH FLOW (Contribution to Reserves)</b>	<b>-384,580</b>		<b>1,283,964</b>	<b>-293,954</b>	<b>31,145</b>	<b>42,010</b>	<b>-365,185</b>
Affordability assuming MHI of \$53438 for residential meters.			1.31%	1.39%	1.47%	1.55%	1.65%
Does the Budget Balance?			Yes	No	No	No	No
Positive Annual Cash Flow?			Yes	No	Yes	Yes	No

It can be seen that the TAP FEES are supporting the operational costs for now, but once large infrastructure spending starts the system will be deeply in the negative territory.

### Alternatives

If the board does not fund its Budget by setting appropriate water and wastewater rates, it does not mean that the Town can't pay its bills. It simply means that the Town is not providing for future replacement of the capital assets and will not be able to guarantee the continuing operation of these utility services.

The board has a fiduciary responsibility to set rates to a level where the Town can continue to operate and provide drinking water and wastewater services for the foreseeable future.

### Investment changes

The current investment strategy keeps most funds in savings accounts at a very low interest rate. By identifying the timing of the need of the funds, certain funds can be invested for a longer term, at higher interest rates.

1. The Capital Reserve Accounts can be invested in a series of CDs with staggered maturities according to the future needs of the Town: Recommend to split between 1-, 2- and 3-year CDs. 1-year insured CD rates are about 1.25%- and 5-year rates are about 2%. If the board feel comfortable with higher paying insured instruments, they have the option to do so.
2. The "Debt Reserve" account, previously known as "FMHA Tax Free Investments", should **not** be invested in tax free investments as the Town does not pay taxes. You probably will get a higher rate of return when you invest in "taxable" investments, on which you do not pay taxes anyway because you are a County Water Town.
3. All other funds can be kept in savings accounts for liquidity.

Periodically, any excess funds above the target set on page 14 should be transferred to the Capital Reserve accounts.

## 6. Rate Calculation

### A. Drinking Water

At a virtual board meeting the board and staff worked with RCAC to adjust the usage tiers and prices for those tiers. All scenarios presented to the board and considered have these tiers and prices built in as such.

Existing Tiers	Existing Tier Prices	Proposed Tiers	Proposed Tier Prices \$/1000 gallons
0	\$3.20	1,000	\$0.00
1,000	\$3.20	4,000	\$3.25
10,000	\$3.20	8,000	\$3.75
100,000	\$3.20	15,000	\$4.25
99,999,999	\$3.20	25,000	\$4.75
		50,000	\$5.25
		100,000	\$5.75
		99,999,999	\$6.25

**Scenario DW 0** – this is the existing rates, existing usage charges and showing future costs, with a five-year forecast is shows a \$2.7M deficit.

Propos	Name of Class	Rate Structure	Schedule				
1	Residential	Tiered Block	A	Go to row 69 and enter the Tie			
3	Comercial	Tiered Block	C				
Rate Schedules							
Tiered	Meter Size	A	B	C	D	E	F
Base	0.625	\$69.50	\$69.50	\$69.50			
	0.750	\$69.50	\$69.50	\$69.50			
Break (All yell Tier Br contair	1	1,000	1,000	1,000			
	2	4,000	4,000	4,000			
	3	8,000	8,000	8,000			
	4	15,000	15,000	15,000			
	5	25,000	25,000	25,000			
	6	50,000	50,000	50,000			
	7	100,000	100,000	100,000			
	8	99,999,999	99,999,999	99,999,999	99,999,999	99,999,999	99,999,999
Gallons	1	\$3.20	\$3.20	\$3.20			
	2	\$3.20	\$3.20	\$3.20			
	3	\$3.20	\$3.20	\$3.20			
	4	\$3.20	\$3.20	\$3.20			
	5	\$3.20	\$3.20	\$3.20			
	6	\$3.20	\$3.20	\$3.20			
	7	\$3.20	\$3.20	\$3.20			
	8	\$3.20	\$3.20	\$3.20			
Growth Factor of Rates		Year 2	Year 3	Year 4	Year 5		
Base		0.00%	0.00%	0.00%	0.00%		
Usage		0.00%	0.00%	0.00%	0.00%		
Results of the new r:		2022	2023	2024	2025	2026	5 Years
TOTAL EXPENSES		\$10,236,403	\$1,890,995	\$1,901,198	\$2,240,047	\$2,526,139	\$18,794,783
TOTAL REVENUE		\$10,144,561	\$1,771,332	\$1,355,054	\$1,363,792	\$1,372,546	\$16,007,285
ort/Over to Reserves)		-\$91,842	-\$119,663	-\$546,144	-\$876,255	-\$1,153,593	-\$2,787,498
tribution to Reserves)		\$433,039	\$182,383	-\$259,933	-\$644,578	-\$996,349	-\$1,285,439
MHI of \$53438 for residential meters.		2.21%	2.23%	2.25%	2.27%	2.29%	
h money in reserves?		No	No	No	No	No	
ve Annual Cash Flow?		Yes	Yes	No	No	No	

**Scenario Y** Raising the drinking water rate by only \$2.00 leaves a deficit of almost \$1.7M after five years.

Propos	Name of Class	Rate Structure			Schedule		
1	Residential	Tiered Block			A	Go to row 69 and enter the Tie	
3	Comercial	Tiered Block			C	Go to row 69 and enter the Tie	
Rate Schedules							
Tiered	Meter Size	A	B	C	D	E	F
Base	0.625	\$71.50	\$71.50	\$71.50			
	0.750	\$71.50	\$71.50	\$71.50			
Break (All yell Tier Br contain	1	1,000	1,000	1,000			
	2	4,000	4,000	4,000			
	3	8,000	8,000	8,000			
	4	15,000	15,000	15,000			
	5	25,000	25,000	25,000			
	6	50,000	50,000	50,000			
	7	100,000	100,000	100,000			
	8	99,999,999	99,999,999	99,999,999	99,999,999	99,999,999	99,999,999
Gallons	1	\$0.00	\$0.00	\$0.00			
	2	\$3.25	\$3.25	\$3.25			
	3	\$3.75	\$3.75	\$3.75			
	4	\$4.25	\$4.25	\$4.25			
	5	\$4.75	\$4.75	\$4.75			
	6	\$5.25	\$5.25	\$5.25			
	7	\$5.75	\$5.75	\$5.75			
	8	\$6.25	\$6.25	\$6.25			
Growth Factor of Rates			Year 2	Year 3	Year 4	Year 5	
Base			5.00%	5.00%	5.00%	5.00%	
Usage			5.00%	5.00%	5.00%	5.00%	
<b>Results of the new r</b>		<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>5 Years</b>
TOTAL EXPENSES		\$10,236,403	\$1,890,995	\$1,901,198	\$2,240,047	\$2,526,139	\$18,794,783
TOTAL REVENUE		\$10,247,895	\$1,928,419	\$1,569,704	\$1,640,021	\$1,714,661	\$17,100,699
ort/Over to Reserves)		\$11,491	\$37,424	-\$331,494	-\$600,026	-\$811,478	-\$1,694,084
tribution to Reserves)		\$536,372	\$339,469	-\$45,284	-\$368,349	-\$654,234	-\$192,025
MHI of \$53438 for residential meters.		2.37%	2.52%	2.67%	2.84%	3.01%	
gh money in reserves?		Yes	Yes	No	No	No	
ve Annual Cash Flow?		Yes	Yes	No	No	No	
<b>Draft Base Rates</b>							
<b>Class 1: Residential, Tiered Block, Schedule A</b>							
eter Si	Year 1	Year 2	Year 3	Year 4	Year 5		
0.625	71.50	75.08	78.83	82.77	86.91		

**Scenario YY** If the board was comfortable with leaving around \$500,000 in deficit, and that can be achieved for the drinking water at \$97.50/month.

Propos	Name of Class	Rate Structure			Schedule		
1	Residential	Tiered Block			A	Go to row 69 and enter the Tiers	
3	Comercial	Tiered Block			C	Go to row 69 and enter the Tiers	
Rate Schedules							
Tiered	Meter Size	A	B	C	D	E	F
Base	0.625	\$97.50	\$97.50	\$97.50			
	0.750	\$97.50	\$97.50	\$97.50			
Tier Break (All yellow) Tier Break contain	1	1,000	1,000	1,000			
	2	4,000	4,000	4,000			
	3	8,000	8,000	8,000			
	4	15,000	15,000	15,000			
	5	25,000	25,000	25,000			
	6	50,000	50,000	50,000			
	7	100,000	100,000	100,000			
	8	99,999,999	99,999,999	99,999,999	99,999,999	99,999,999	99,999,999
Gallons	1	\$0.00	\$0.00	\$0.00			
	2	\$3.25	\$3.25	\$3.25			
	3	\$3.75	\$3.75	\$3.75			
	4	\$4.25	\$4.25	\$4.25			
	5	\$4.75	\$4.75	\$4.75			
	6	\$5.25	\$5.25	\$5.25			
	7	\$5.75	\$5.75	\$5.75			
	8	\$6.25	\$6.25	\$6.25			
Growth Factor of Rates		Year 2	Year 3	Year 4	Year 5		
Base		5.00%	5.00%	5.00%	5.00%		
Usage		5.00%	5.00%	5.00%	5.00%		
<b>Results of the new rates</b>		<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>5 Years</b>
TOTAL EXPENSES		\$10,236,403	\$1,890,995	\$1,901,198	\$2,240,047	\$2,526,139	\$18,794,783
TOTAL REVENUE		\$10,465,047	\$2,156,428	\$1,809,114	\$1,891,401	\$1,978,611	\$18,300,601
Short/Over to Reserves)		\$228,643	\$265,433	-\$92,084	-\$348,646	-\$547,528	-\$494,182
Contribution to Reserves)		\$753,524	\$567,479	\$194,126	-\$116,969	-\$390,284	\$1,007,877
MHI of \$53438 for residential meters.		2.95%	3.13%	3.32%	3.51%	3.72%	
Enough money in reserves?		Yes	Yes	No	No	No	
Positive Annual Cash Flow?		Yes	Yes	Yes	No	No	
<b>Draft Base Rates</b>							
<b>Class 1: Residential, Tiered Block, Schedule A</b>							
Meter Size	Year 1	Year 2	Year 3	Year 4	Year 5		
0.625	97.50	102.38	107.49	112.87	118.51		

**Scenario Z** What it will take to balance the drinking water budget is \$108/month.

Propos	Name of Class	Rate Structure			Schedule	
1	Residential	Tiered Block			A	Go to row 69 and enter the Tiera
3	Comercial	Tiered Block			C	Go to row 69 and enter the Tiera
Rate Schedules						
Tiered	Meter Size	A	B	C	D	E
Base	0.625	\$108.00	\$108.00	\$108.00		
	0.750	\$108.00	\$108.00	\$108.00		
r Break	1	1,000	1,000	1,000		
(All yell	2	4,000	4,000	4,000		
Tier Br	3	8,000	8,000	8,000		
contain	4	15,000	15,000	15,000		
	5	25,000	25,000	25,000		
	6	50,000	50,000	50,000		
	7	100,000	100,000	100,000		
	8	99,999,999	99,999,999	99,999,999	99,999,999	99,999,999
Gallons	1	\$0.00	\$0.00	\$0.00		
	2	\$3.25	\$3.25	\$3.25		
	3	\$3.75	\$3.75	\$3.75		
	4	\$4.25	\$4.25	\$4.25		
	5	\$4.75	\$4.75	\$4.75		
	6	\$5.25	\$5.25	\$5.25		
	7	\$5.75	\$5.75	\$5.75		
	8	\$6.25	\$6.25	\$6.25		
Growth Factor of Rates		Year 2	Year 3	Year 4	Year 5	
Base		5.00%	5.00%	5.00%	5.00%	
Usage		5.00%	5.00%	5.00%	5.00%	
<b>Results of the new rate</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>5 Years</b>
TOTAL EXPENSES	\$10,236,403	\$1,890,995	\$1,901,198	\$2,240,047	\$2,526,139	\$18,794,783
TOTAL REVENUE	\$10,552,743	\$2,248,509	\$1,905,799	\$1,992,920	\$2,085,206	\$18,785,177
Short/Over to Reserves)	\$316,339	\$357,514	\$4,601	-\$247,127	-\$440,933	-\$9,606
Contribution to Reserves)	\$841,220	\$659,560	\$290,811	-\$15,450	-\$283,689	\$1,492,453
MHI of \$53438 for residential meters.	3.19%	3.38%	3.58%	3.79%	4.01%	
ough money in reserves?	Yes	Yes	Yes	No	No	
itive Annual Cash Flow?	Yes	Yes	Yes	No	No	

Currently the model has been explored with a previously default inflation rate at 2.9%. If the model has a 5% future inflation value, the cost to balance the budget is \$132/month for residential drinking water.



## B. Wastewater Exhibit 3WW

The existing wastewater rates charge usage per 1000 gallons only for the commercial customers. At one time the residential customers were also charged based on their winter usage. This is assumed to be the indoor water consumption that ends up collected by the sewage system. Bills are made based on the previous year's average winter consumption.

The rate chosen by the board and used in all scenarios presented is \$2.00/1000 gallons for both residential and commercial customers.

**Scenario WW 0** – Existing Rates, Existing Usage Charges, five-year forecast resulting in a \$1.97M deficit after taking \$558K from reserves.

Proposed Customer Classes	Name of Class	Rate Structure	Schedule			
1	Residential	Tiered Block	A	Go to row 69 and enter the Tie		
3	Commercial	Tiered Block	C	Go to row 69 and enter the Tie		
Tiered Block		Meter Size	Rate Schedules			
	Base	0.625	\$30.00		\$30.00	
		0.750	\$30.00		\$30.00	
		1.000	\$30.00		\$30.00	
		1.500	\$30.00		\$30.00	
		2.000	\$30.00		\$30.00	
	Tier Break	1	0		0	
	(All yellow cells in this	2	1,000		1,000	
	Tier Break table must	3	10,000		10,000	
	contain data.)	4	9,999,999		9,999,999	
		8	99,999,999		99,999,999	99,999,999
	Usage Rate per 1000 Gallons	1	\$0.00		\$1.70	
	Growth Factor of Rates		Year 2	Year 3	Year 4	Year 5
	Base		0.00%	0.00%	0.00%	0.00%
	Usage		0.00%	0.00%	0.00%	0.00%
	<b>Results of the new rates</b>		<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>
	TOTAL EXPENSES		\$1,498,476	\$1,451,773	\$928,492	\$932,889
	TOTAL REVENUE		\$2,132,095	\$593,526	\$434,257	\$434,988
	NET LOSS OR GAIN: (Short/Over to Reserves)		\$633,619	-\$858,248	-\$494,235	-\$497,900
	NET CASH FLOW (Contribution to Reserves)		\$1,068,753	-\$529,401	-\$225,592	-\$237,128
	Affordability assuming MHI of \$53438 for residential meters.		0.67%	0.67%	0.67%	0.67%
	Are you putting enough money in reserves?	Yes	No	No	No	No
	Positive Annual Cash Flow?	Yes	No	No	No	No

**Scenario W**

Proposed Customer Classes	Name of Class	Rate Structure	Schedule				
1	Residential	Tiered Block	A	Go to row 69 and enter the Tie			
3	Commercial	Tiered Block	C	Go to row 69 and enter the Tie			
Rate Schedules							
Tiered Block	Meter Size	A	B	C	D	E	F
Base	0.625	\$40.00		\$40.00			
	0.750	\$40.00		\$40.00			
	1.000	\$40.00		\$40.00			
	1.500	\$40.00		\$40.00			
	2.000	\$40.00		\$40.00			
Tier Break	1	0		0			
(All yellow cells in this	2	1,000		1,000			
Tier Break table must	3	10,000		10,000			
contain data.)	4	9,999,999		9,999,999			
	8	99,999,999		99,999,999	99,999,999	99,999,999	99,999,999
Usage Rate per 1000 Gallons	1	\$2.00		\$2.00			
Growth Factor of Rates			Year 2	Year 3	Year 4	Year 5	
Base			5.00%	5.00%	5.00%	5.00%	
Usage			5.00%	5.00%	5.00%	5.00%	
<b>Results of the new rates</b>		<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>5 Years</b>
TOTAL EXPENSES		\$1,498,476	\$1,451,773	\$928,492	\$932,889	\$1,189,761	\$6,001,390
TOTAL REVENUE		\$2,355,457	\$845,921	\$717,422	\$750,758	\$786,033	\$5,455,592
NET LOSS OR GAIN: (Short/Over to Reserves)		\$856,982	-\$605,852	-\$211,070	-\$182,131	-\$403,727	-\$545,799
NET CASH FLOW (Contribution to Reserves)		\$1,292,116	-\$277,006	\$57,573	\$78,641	-\$285,064	\$866,261
Affordability assuming MHI of \$53438 for residential meters.		1.31%	1.39%	1.47%	1.55%	1.65%	
Are you putting enough money in reserves?	Yes	No	No	No	No	No	
Positive Annual Cash Flow?	Yes	No	Yes	Yes	No	No	
<b>Draft Base Rates</b>							
<b>Class 1: Residential, Tiered Block, Schedule A</b>							
<b>Meter Size</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Year 5</b>		
0.625	40.00	42.00	44.10	46.31	48.62		

**Scenario X – What it would take to balance the budget.**

Proposed Customer Classes	Name of Class	Rate Structure	Schedule				
1	Residential	Tiered Block	A	Go to row 69 and enter the Tie			
3	Commercial	Tiered Block	C	Go to row 69 and enter the Tie			
		Rate Schedules					
Tiered Block	Meter Size	A	B	C	D	E	F
Base	0.625	\$52.00		\$52.00			
	0.750	\$52.00		\$52.00			
	1.000	\$52.00		\$52.00			
	1.500	\$52.00		\$52.00			
	2.000	\$52.00		\$52.00			
Tier Break (All yellow cells in this Tier Break table must contain data.)	1	0		0			
	2	1,000		1,000			
	3	10,000		10,000			
	4	9,999,999		9,999,999			
	8	99,999,999		99,999,999	99,999,999	99,999,999	99,999,999
Usage Rate per 1000 Gallons	1	\$2.00		\$2.00			
Growth Factor of Rates			Year 2	Year 3	Year 4	Year 5	
	Base Usage		5.00%	5.00%	5.00%	5.00%	
<b>Results of the new rates</b>		<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>5 Years</b>
TOTAL EXPENSES		\$1,498,476	\$1,451,773	\$928,492	\$932,889	\$1,189,761	\$6,001,390
TOTAL REVENUE		\$2,454,241	\$949,645	\$826,331	\$865,112	\$906,106	\$6,001,435
NET LOSS OR GAIN: (Short/Over to Reserves)		\$955,766	-\$502,129	-\$102,161	-\$67,776	-\$283,655	\$45
NET CASH FLOW (Contribution to Reserves)		\$1,390,900	-\$173,282	\$166,482	\$192,996	-\$164,992	\$1,412,105
Affordability assuming MHI of \$53438 for residential meters.		1.58%	1.67%	1.76%	1.87%	1.97%	
Are you putting enough money in reserves?	Yes	No	No	No	No	No	
Positive Annual Cash Flow?	Yes	No	Yes	Yes	No	No	
<b>Draft Base Rates</b>							
<b>Class 1: Residential, Tiered Block, Schedule A</b>							
<b>Meter Size</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Year 5</b>		
0.625	52.00	54.60	57.33	60.20	63.21		

Currently the model has been explored with a previously default inflation rate at 2.9%. If the model has a 5% future inflation value, the cost to balance the budget is \$74/month for residential sewer before usage charges.

**Expenses and Suggested new Rate**

The Budgets in Exhibit 2s calculated the Total Expenses for the next five years. Dividing the expenses among the 712-drinking water and 682 wastewater customers give us the proposed rates shown above. Several scenarios were developed and presented to the board on various occasions.

### **Rate Selected**

At this time the board has not made any decisions on rate increases to bring the revenue up to where it balances the known future expenses. At the board meeting on June 8<sup>th</sup> the board showed a tendency to support Scenario Y for drinking water (\$71.5/month + new usage tiers) and W for Sewer (\$40/month plus new usage charges.)

### **Income Generated by the Proposed Rate**

The proposed drinking water rates for scenario Y would generate about \$579,168 in base fees and \$375,269 the first year and with deficit of \$1.7M over the next five years.

The proposed wastewater rates generate \$329,280 in base rates and \$166,825 in the first year. This results in a deficit of \$545,800 over the next five years. This assumes all billings are collected. It excludes late fees and interest charges.

### **Affordability**

The proposed drinking water rate generate an average monthly bill (with usage charges) would raise from \$69.50 to \$71.50 in the first year. This corresponds to a 2.37% affordability ending the five-year study period at 3.01% affordability index. For the Wastewater the average monthly bill will go from \$30.00 to \$40.00 which is still only is 0.67% affordability and 1.31% at the end of the five years. To be eligible for grants and loans, the minimum rate should be at least 1.5% of MHI, or \$71.25 average monthly bill for either utility.

When the Town applies for grants or loans, it will be required to increase rates, unless the MHI is determined to be lower than where it currently is at \$53,438.

### **No Decision to Adjust Rates**

The staff of Wiggins has worked with RCAC to re-build these two models numerous times. In that time the costs have risen, scopes have wandered, and the rates have remained the same. The drinking water rates are not far from where the study recommends, however the sewer rates need to increase to make the enterprise financially sustainable. The longer the board delays the decision to adjust the rates to bring in enough revenue to balance the budget for known, anticipated, and expected costs coming in the near future.

### **Preliminary Decision to Adjust Rates**

The board met on June 8<sup>th</sup> to discuss rates and the draft of this report. The board felt that the suggestion to raise the Drinking water rates by \$2.00 was acceptable along with the increase in tier charges and 5% increases annually to both base and usage (Scenario Y). Only with 5% increases annually are required to keep the revenue moving in the positive direction. The rates would need to \$108/month with 5% increases annually to balance the budget.

The board is tentatively moving forward with a sewer rate increase from \$30/month and only charging usage from commercial customers to \$40/month and charging \$2.00/1000 gallons of (average winter) usage. This scenario recommends increasing the base and usage rates by 5% each year. It is worth

noting the rates would have to be \$70/month with 5% increases annually to fully balance the budget. The board is comfortable moving forward with Scenario WW where the deficit moved from just under \$4M to \$545,800 over a five-year forecast.

## 7. Next Step

### A. Preparing the Public for Rate Increases

Here are some ideas that may help you get support from the public for your rate increases.

#### Marketing Plan

The Wiggins Board understands the need or the necessity of a substantial rate increase.

The chairman of the board or the GM should talk to the local county supervisor, assemblyman and state senator. It is better that he hears from you about the need to raise rates, than that he hears a complaint about the rates from a constituent.

Invite your local reporter to the office so you can explain in detail why you need a rate increase.

#### Press Release

Write a press release that makes the following points:

- Your system maintenance has been neglected for many years
- The system may need to buy more water rights in the near future
- Funds have been provided by the state to repair certain portions, but funds need to be raised to maintain and replace the system in the future
- Rates have been below expenses for the sewer system for a while.
- You have cut every possible expense
- Explain the consequences of not raising rates:
  - o May not get government funds in the future
  - o System will continue to deteriorate
  - o System may become non-compliant with health regulations
  - o Eventually, the system will go into receivership and the customers will not have any say in the operation of the system and its rates.

#### Other parts of the marketing plan

- Create flyers, mailers and newsletters with similar information as in the press release
- Have a board member or GM speak before local clubs, and on local radio talk shows
- Have an open house, showing the deteriorating system
- Invite the press to your regular board meetings, and provide them with a full agenda package.

## 8. Inflation in 2022

During 2021 and the start of 2022 inflation reached a point where the rate study should consider the effects of 9.1% inflation. The previous rate models and scenarios were ran with inflation set at 2.9% which was pretty stable over the previous period in time. The staff and board have deliberated over scenarios at 2.9%. Since the financial forecast is five years into the future and we do not want to look at 9% inflation over that time period, this chapter will look at 5% inflation in costs sustained over the next 5 years.

### B. Effects of Inflation on Drinking Water

Here are the effects of 5% inflation against the scenarios previously reported on the drinking water rates.

Scenarios	Monthly Base	2.9%	5% Inflation
0	\$69.50	\$2,787,498	\$3,910,639
1	\$71.50	\$1,694,084	\$2,817,225
2	\$97.50	\$494,182	\$1,617,323
3	\$108.00	\$9,606	\$1,132,747

Scenario 2 with a base rate at \$97.50 was explored to give the board an idea of where the rates would have needed to go (parameters set at 2.9% inflation) to achieve half a million dollar deficit. Now looking at a five year forecast at an average of 5% inflation, that same \$97.50 base rate results in \$1.6M deficit.



Propos	Name of Class	Rate Structure	Schedule				
1	Residential	Tiered Block	A	Go to row 69 and enter the Tiers			
3	Comercial	Tiered Block	C	Go to row 69 and enter the Tiers			
Rate Schedules							
Tiered	Meter Size	A	B	C	D	E	F
Base	0.625	\$97.50	\$97.50	\$97.50			
	0.750	\$97.50	\$97.50	\$97.50			
r Break (All yellow Tier Break contain	1	1,000	1,000	1,000			
	2	4,000	4,000	4,000			
	3	8,000	8,000	8,000			
	4	15,000	15,000	15,000			
	5	25,000	25,000	25,000			
	6	50,000	50,000	50,000			
	7	100,000	100,000	100,000			
	8	99,999,999	99,999,999	99,999,999	99,999,999	99,999,999	99,999,999
Gallons	1	\$0.00	\$0.00	\$0.00			
	2	\$3.25	\$3.25	\$3.25			
	3	\$3.75	\$3.75	\$3.75			
	4	\$4.25	\$4.25	\$4.25			
	5	\$4.75	\$4.75	\$4.75			
	6	\$5.25	\$5.25	\$5.25			
	7	\$5.75	\$5.75	\$5.75			
	8	\$6.25	\$6.25	\$6.25			
Growth Factor of Rates		Year 2	Year 3	Year 4	Year 5		
	Base	5.00%	5.00%	5.00%	5.00%		
	Usage	5.00%	5.00%	5.00%	5.00%		
Results of the new rates	2022	2023	2024	2025	2026	5 Years	
	TOTAL EXPENSES	\$10,236,403	\$1,890,995	\$1,901,198	\$2,240,047	\$2,526,139	\$18,794,783
	TOTAL REVENUE	\$10,465,047	\$2,156,428	\$1,809,114	\$1,891,401	\$1,978,611	\$18,300,601
	Short/Over to Reserves)	\$228,643	\$265,433	-\$92,084	-\$348,646	-\$547,528	-\$494,182
	Contribution to Reserves)	\$753,524	\$567,479	\$194,126	-\$116,969	-\$390,284	\$1,007,877
	MHI of \$53438 for residential meters.	2.95%	3.13%	3.32%	3.51%	3.72%	
	Enough money in reserves?	Yes	Yes	No	No	No	
Positive Annual Cash Flow?	Yes	Yes	Yes	No	No		
<b>Draft Base Rates</b>							
<b>Class 1: Residential, Tiered Block, Schedule A</b>							
Meter Size	Year 1	Year 2	Year 3	Year 4	Year 5		
0.625	97.50	102.38	107.49	112.87	118.51		

## A. Effects of Inflation on Sewer

Here are the effects of 5% inflation against the scenarios previously reported

Scenarios	Monthly Base	2.9%	5% Inflation
0	\$30.00	\$1,970,805	\$2,984,920
1	\$40.00	\$545,799	\$1,559,914
2	\$52.00	\$45	\$1,014,070
3	\$63.00	-	\$513,713

This 3<sup>rd</sup> scenario for the sewer was only ran with 5% inflation and was run to illustrate where the base rate would need to start in order to stay near a half a million dollars in deficit.

Proposed Customer Classes	Name of Class	Rate Structure	Schedule				
1	Residential	Tiered Block	A	Go to row 69 and enter the Tier			
3	Commercial	Tiered Block	C	Go to row 69 and enter the Tier			
		Rate Schedules					
Tiered Block	Meter Size	A	B	C	D	E	F
	Base	0.625	\$63.00		\$63.00		
		0.750	\$63.00		\$63.00		
		1.000	\$63.00		\$63.00		
		1.500	\$63.00		\$63.00		
		2.000	\$63.00		\$63.00		
	Tier Break	1	0		0		
(All yellow cells in this		2	1,000		1,000		
Tier Break table must		3	10,000		10,000		
contain data.)		4	9,999,999		9,999,999		
		8	99,999,999		99,999,999	99,999,999	99,999,999
	Usage Rate per 1000 Gallons	1	\$2.00		\$2.00		
	Growth Factor of Rates			Year 2	Year 3	Year 4	Year 5
	Base			5.00%	5.00%	5.00%	5.00%
	Usage			5.00%	5.00%	5.00%	5.00%
	Results of the new rates						
		2023	2024	2025	2026	2027	5 Years
	TOTAL EXPENSES	\$1,679,874	\$1,641,969	\$1,125,686	\$1,139,796	\$1,428,198	\$7,015,523
	TOTAL REVENUE	\$2,544,794	\$1,044,726	\$926,168	\$969,942	\$1,016,178	\$6,501,810
	NET LOSS OR GAIN: (Short/Over to Reserves)	\$864,920	-\$597,243	-\$199,518	-\$169,853	-\$412,019	-\$513,713
	NET CASH FLOW (Contribution to Reserves)	\$1,473,300	-\$95,151	\$239,888	\$261,190	-\$135,046	\$1,744,181
	Affordability assuming MHI of \$53438 for residential meters.	1.82%	1.93%	2.04%	2.15%	2.27%	
	Are you putting enough money in reserves?	Yes	No	No	No	No	
	Positive Annual Cash Flow?	Yes	No	Yes	Yes	No	
	Draft Base Rates						
	Class 1: Residential, Tiered Block, Schedule A						
	Meter Size	Year 1	Year 2	Year 3	Year 4	Year 5	
	0.625	63.00	66.15	69.46	72.93	76.58	