



Control Number: 49225



Item Number: 23

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DOCKET NO. 49225

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PETITION BY OUTSIDE CITY
RATEPAYERS APPEALING THE
WATER RATES ESTABLISHED BY
THE CITY OF CELINA

§
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§

PUBLIC UTILITY COMMISSION

OF TEXAS

FILED
FILING CLERK

**CITY OF CELINA'S RESPONSES TO COMMISSION STAFF'S
REQUEST FOR INFORMATION 3-1 THROUGH 3-16 AND COMMISSION STAFF'S
REQUEST FOR ADMISSION 3-1**

Now comes CITY OF CELINA ("CELINA") and serves its Responses to the Commission Staff's Third Request for Information and Request for Admission.

These responses are timely filed consistent with the agreement between Staff and CELINA. CELINA stipulates that responses to requests for information can be treated by all parties as if the answers were filed under oath. CELINA reserves the right to amend or supplement its responses.

Respectfully submitted,

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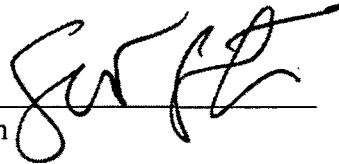
CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing document has been served on all parties of record on this 10th day of June, 2019, in accordance with 16 Tex. Admin. Code § 22.74.

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A handwritten signature in black ink, appearing to read 'Scott Smyth', written over a horizontal line.

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**PETITION BY OUTSIDE CITY §
RATEPAYERS APPEALING THE § PUBLIC UTILITY COMMISSION
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**CITY OF CELINA’S RESPONSE TO COMMISSION STAFF’S
THIRD REQUEST FOR INFORMATION NOS. 3-1 THROUGH 3-16
AND COMMISSION STAFF’S THIRD REQUEST FOR ADMISSION NO. 3-1**

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THIRD REQUEST FOR INFORMATION NOS. 3-1 THROUGH 3-16
AND COMMISSION STAFF'S THIRD REQUEST FOR ADMISSION NO. 3-1**

REQUEST FOR INFORMATION STAFF 3-1:

Staff 3-1. Provide any and all rate studies for the past 5 years, including methodologies, best practice references, and calculations, and assumptions used to support the rate changes subject to this appeal. [AS MODIFIED BY AGREEMENT]

RESPONSE: See attached Celina Response to Staff 3-1.

Sponsor: Jason Laumer, City Manager

REQUEST FOR INFORMATION STAFF 3-2:

Staff 3-2. Please provide any and all rate studies showing the calculations for costs allocated between the inside city and outside city customers receiving water and/or sewer service that the City has in its possession or that was prepared by or prepared at the direction of the City. [AS MODIFIED BY AGREEMENT]

RESPONSE: See attached Celina Response to Staff 3-2.

Sponsor: Jason Laumer, City Manager

REQUEST FOR INFORMATION STAFF 3-3:

Staff 3-3. Please provide any all documents showing the cost of service for water and waste water service provided by the City to inside city and outside city customers for the past 5 years. [AS MODIFIED BY AGREEMENT]

RESPONSE: See Responses to Staff 3-1 and 3-2 above.

Sponsor: Jason Laumer, City Manager

REQUEST FOR INFORMATION 3-4:

Staff 3-4. Provide all documentation and information for the last 5 years used by the City to set the rates which went into effect January 01, 2019 and March 19, 2019 subject to this appeal. [AS MODIFIED BY AGREEMENT]

RESPONSE: See Responses to Staff 3-1 and 3-2 above.

Sponsor: Jason Laumer, City Manager

REQUEST FOR INFORMATION 3-5:

Staff 3-5. Please provide a copy of the audited financial statements of the City completed at the time the City made its decision to institute the rates effective January 01, 2019 and March 19, 2019.

RESPONSE: See attached Celina Response to Staff 3-5.

Sponsor: Jason Laumer, City Manager

REQUEST FOR INFORMATION 3-6:

Staff 3-6. Please provide a copy of the City's budget available at the time the City made its decision to institute the rates effective January 01, 2019 and March 19, 2019.

RESPONSE: See Responses to Staff 3-6.

Sponsor: Jason Laumer, City Manager

REQUEST FOR INFORMATION 3-7:

Staff 3-7. For debt outstanding by the City regarding the rates which went into effect January 1, 2019 and March 19, 2019, please provide documents in possession of the City or directed or prepared by the City showing:

- a. Total annual interest
 - b. Principal payments
 - c. amortization schedule
 - d. allocation of debt between water and wastewater services for outside services for outside city customers and inside city customers
 - e. allocation of debt for capital investment issued for water and wastewater services for outside city customers for years 2018-2019
- [AS MODIFIED BY AGREEMENT]

RESPONSE:

- a. See Celina Response to Staff 3-7.
- b. See Celina Response to Staff 3-7.
- c. See Celina Response to Staff 3-7.
- d. See Celina Response to Staff 3-7. While debt has been issued by the City for the purposes of water and wastewater infrastructure previous to 2018, it is not allocated/ broken out between outside city customers and inside city customers.
- e. See Celina Response to Staff 3-7. While debt has been issued by the City for the purposes of water and wastewater infrastructure, it is not allocated/ broken out between outside city customers and inside city customers.

Sponsor: Jason Laumer, City Manager

REQUEST FOR INFORMATION 3-8:

Staff 3-8. Provide copies of all debt agreements for the past 5 years, in possession of the City or prepared by the City or at the direction of the City, including but not limited to bond agreements and loan agreements for any debt service used to provide water and wastewater. [AS MODIFIED BY AGREEMENT]

RESPONSE: See Celina Response to Staff 3-7 above.

Sponsor: Jason Laumer, City Manager

REQUEST FOR INFORMATION 3-9:

Staff 3-9. Please explain in detail what entity installed and paid for the infrastructure to provide water and wastewater service to the out of city customers and provide all agreements for the past 5 years made with any entities that shared in payment for such infrastructure. [AS MODIFIED BY AGREEMENT]

RESPONSE: Collin County MUD #1 installed the infrastructure for customers in Light Farms and is being reimbursed via impact fees from Doe Branch basin.

See attached Celina Response to Staff 3-9.

Sponsor: Jason Laumer, City Manager

REQUEST FOR INFORMATION 3-10:

Staff 3-10. Please provide the source(s) and amounts of funding used to install infrastructure used by the City to provide water and sewer service to the outside city customers.

RESPONSE: Collin County MUD #1 installed the infrastructure for customers in Light Farms and is being reimbursed via impact fees from Doe Branch basin.

See attached Celina Response to Staff 3-9.

Sponsor: Jason Laumer, City Manager

REQUEST FOR INFORMATION 3-11:

Staff 3-11. Please provide total gallons of water produced and gallons of water billed for the fiscal year completed directly prior to the date the decision was made to increase the rates subject to this appeal by month, customer class, and tier. Please provide separately and in total for inside and outside city customers.

RESPONSE: See attached Celina Response to Staff 3-11.

Sponsor: Jason Laumer, City Manager

REQUEST FOR INFORMATION 3-12:

Staff 3-12. Please provide the total gallons of water produced and total gallons of water billed for the fiscal year prior to November 18, 2019 for:

- a. Inside city customers
- b. Outside city customers

RESPONSE: See Response to Staff 3-11.

Sponsor: Jason Laumer, City Manager

REQUEST FOR INFORMATION 3-13:

Staff 3-13. Please provide the revenue requirement including detailed expenses used to set the rates and supporting financial statements or budget used to determine the revenue requirement.

RESPONSE: See Response to Staff 3-1.

Sponsor: Jason Laumer, City Manager

REQUEST FOR INFORMATION 3-14:

Staff 3-14. Please provide the general ledger which includes detailed expenses used to determine the revenue requirement. Please also provide supporting financial statements used to determine the revenue requirement.

RESPONSE: See Response to Staff 3-1.

Sponsor: Jason Laumer, City Manager

REQUEST FOR INFORMATION 3-15:

Staff 3-15. Please provide any explanation between the historical financial statements and/or the budget used and the revenue requirement used to set the rates subject to this appeal.

RESPONSE: See narrative contained within attached Celina Response to Staff 3-1.

Sponsor: Jason Laumer, City Manager

REQUEST FOR INFORMATION 3-16:

Staff 3-16. Provide a copy of the notice sent to each effected customer for the rate change that went into effect on March 19, 2019, and a signed and a copy of the affidavit indicating when notice was provided. [AS MODIFIED BY AGREEMENT]

RESPONSE: See attached Celina Response to Staff 3-16. This notice was sent to the City of Celina retail water and wastewater customers on April 18, 2019.

Sponsor: Jason Laumer, City Manager

REQUEST FOR ADMISSION 3-1:

Staff 3-1. Admit or deny that Collin County No. #1 Municipal Utility District installed and funded the infrastructure in place to serve the outside city customers.

RESPONSE: Unable to admit or deny. Collin County MUD #1 installed the infrastructure to serve Light Farms customers and although it fronted the funding, it is being reimbursed via impact fees from Doe Branch basin.

Sponsor: Jason Laumer, City Manager

CITY OF CELINA

| TEXAS



2018

Water and Wastewater Rate Study and Financial Forecast



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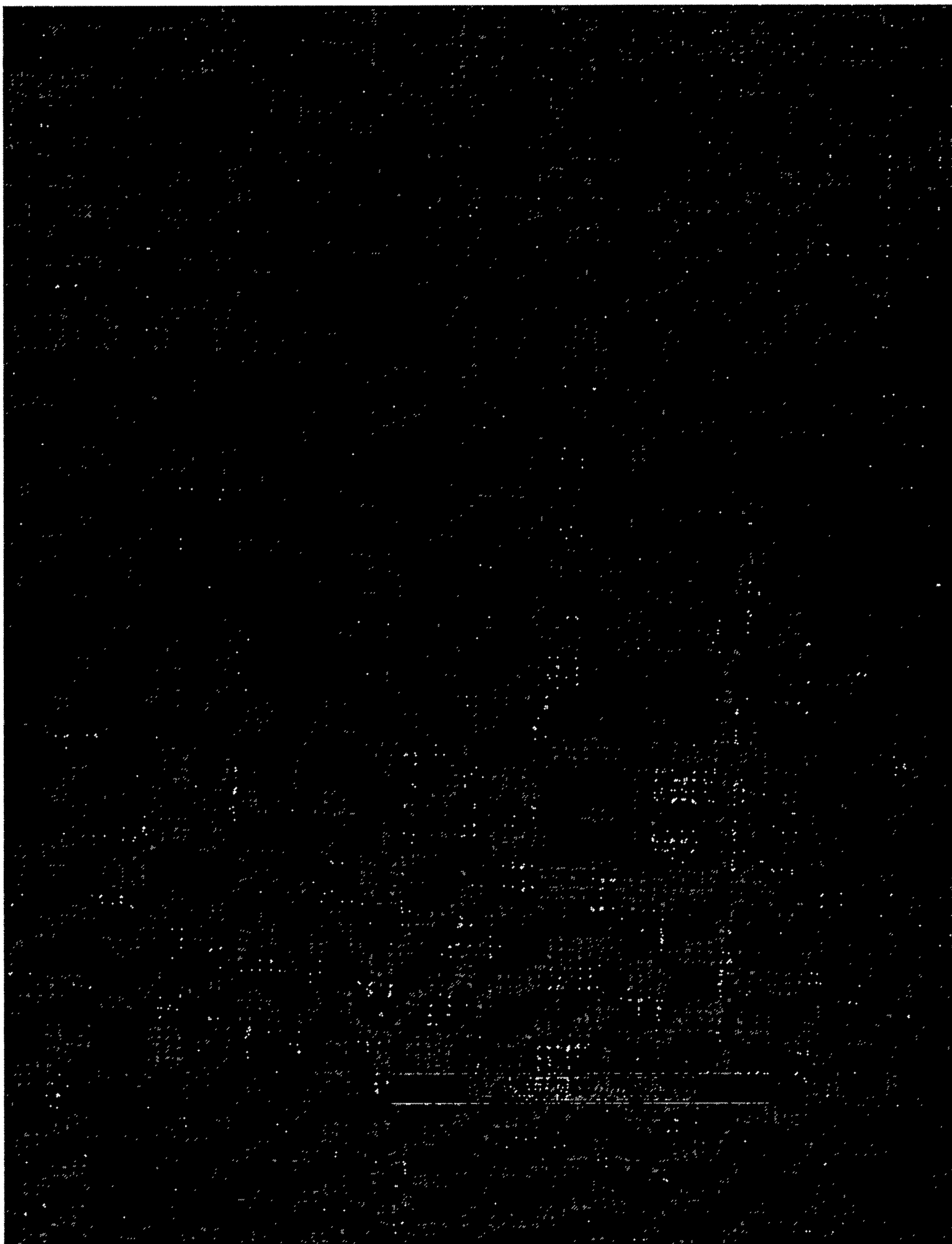
Appendix A – Water and Wastewater Rate Model Summary – Alternative 1

Appendix B – Water and Wastewater Rate Model Summary – Alternative 2

Acknowledgements

During the course of this rate study, several City of Celina employees expended considerable time and effort in assisting the project team. These employees included the Mayor and Council, Mr. Jason Laumer, Mr. Paul DeBuff, Ms. Amy Kuehn, Mr. Jay Toutounchain, Ms. Kimberly Brawner, and Mr. Alan Fourmentin. The project team owes a debt of gratitude to the hard work, dedication and professionalism of these individuals, without whom this project would not have been successfully completed.

The project team has relied upon the extensive data supplied by the City of Celina. Thus, the integrity of the study is largely dependent upon the accuracy of this financial and customer data. Every effort has been made by the project team to validate and confirm the information contained herein prior to the preparation of the final study documents; however we cannot guarantee the reliability of data supplied to us by the City. **This report presents no assurance or guarantee that the forecast contained herein will be consistent with actual results or performances.** These represent forecasts based on a series of assumptions about future behavior and are not guarantees. Any changes in assumptions or actual events may result in significant revisions to the forecast and its conclusions. The cash flow projections and debt service coverage calculations are not intended to present overall financial positions, results of operations, and/or cash flows for the periods indicated, which is in conformity with guidelines for presentation of a forecast established by the American Institute of Certified Public Accountants.



Executive Summary

Background



In April 2018, the City of Celina, Texas (the “City”) engaged **Willdan Financial Services** to conduct a water and wastewater rate study and long-term financial plan. The City was interested in developing a comprehensive rate plan for FY 2018 and beyond. The objective of this study is to develop a long-term rate plan that will enable the City to recover sufficient funds to meet operating expenses, capital outlays, debt service and coverage requirements, while at the same time to the best extent possible minimizing the impact of any adjustments on ratepayers.

The City identified numerous objectives for this study, including but not limited to the following:

- A comprehensive analysis and evaluation of the water and wastewater systems’ current cost of service and revenue requirements.
- A forecast of operating expenses over the next decade, taking into consideration salient factors such as cost of water and wastewater treatment, inflation, and system growth.
- A review and analysis of the impact of forecast cost increases from Upper Trinity Regional Water District (“UTRWD”), the City’s primary water and wastewater wholesale service provider, on the City’s retail rates.
- A thorough review of the water and wastewater systems’ known capital improvement needs, as well as a determination of the need for funding capital requirements through the issuance of long-term debt.
- An estimate of current and forecast accounts, volumes and billing units for the ten-year forecast period.
- An analysis of alternative rate structures for water and wastewater rates that will recover sufficient revenues and will distribute costs equitably.
- A detailed analysis and comparison of the City’s current and proposed rates to rates in other surrounding communities.

Water and Wastewater Rate Comparison

Table ES-1 compares the City’s monthly water and wastewater charges to nearby cities in Texas. Volumes of 5,000 gallons for water and 5,000 gallons for wastewater were used for the residential comparison as it represents typical usage levels for an average household. The rate data is based on published rates and ordinances posted by each



municipality on their website. These rates do not include sales tax, activation or other charges beyond the basic minimum and volume charges. The following points are notable:

- Celina's residential monthly charges are average when compared to the surveyed communities.
- Celina's residential charges are approximately the same as the state average.
- It should be noted that according to US governmental statistics, as many as 30% of water and wastewater utilities charge rates that do not cover their costs. So if a utility has low rates, this does not necessarily translate into low costs.

TABLE ES-1

CITY OF CELINA				
	Water		Wastewater	
				Total
Celina	\$	37.13	\$	37.79
				\$ 74.92
Allen		31.97		32.74
Frisco		29.21		41.52
Mustang SUD		44.05		51.60
Prosper		31.90		46.12
Colleyville		33.06		25.27
Coppell		33.60		31.36
University Park		29.13		33.60
Rockwall		35.72		34.90
Fairview		35.42		37.08
Keller		40.84		35.35
Murphy		46.38		38.87
McKinney		37.45		39.85
Southlake		54.17		43.21
Little Elm		40.76		42.29
Marilee SUD		47.40		37.79
Sample Average		38.01		38.08
2018 State Average*		38.21		35.99
				76.10
				74.21
Source: Cities' Website ; US Census Bureau & municipal websites				

Water and Wastewater Customers and Usage – Test Year & Forecast

Table ES-2 and **Table ES-3** present total historical and forecast water accounts for the City. For each of the historical years, the average number of accounts for the year is shown and the growth reflects the difference from one fiscal year to the next. The charts reveal that in 2016 and 2017 the City experienced growth in excess of 810 water accounts. The project team is forecasting that account growth will continue in future years, tapering down from 23% in FY 2019 to 6% in 2027. The forecast projects that the test year 2018 total of **5,090** will increase to **12,795** by 2027.

The charts further reveal that residential accounts represent the largest water customer class, at 3,611 accounts in the test year 2018.

TABLE ES-2

CITY OF CELINA					
[REDACTED]					
Fiscal Year	Residential	Residential Outside	Commercial	Commercial Outside	Total
[REDACTED]					
FY 2015	2,477	593	219	24	3,313
FY 2016	2,760	892	223	24	3,899
FY 2017	3,320	1,131	239	27	4,717
12 Mo Apr '18	3,611	1,211	241	28	5,090
FY 2019	4,418	1,481	295	34	6,228
FY 2020	5,308	1,779	354	40	7,482
FY 2021	5,901	1,978	394	45	8,318
FY 2022	6,495	2,177	433	49	9,155
FY 2023	7,076	2,372	472	54	9,974
FY 2024	7,629	2,558	509	58	10,754
FY 2025	8,141	2,729	543	62	11,476
FY 2026	8,596	2,882	574	65	12,117
FY 2027	9,077	3,043	606	69	12,795

TABLE ES-3

CITY OF CELINA					
[REDACTED]					
FORECAST TOTAL CUSTOMERS WASTEWATER Customer Classes					
	Residential	Residential Outside	Commercial	Commercial Outside	Total
[REDACTED]					
WASTEWATER Total Customers					
FY 2015	2,540	1	131	1	2,673
FY 2016	3,118	1	129	1	3,249
FY 2017	3,930	1	130	1	4,062
12 Mo Apr '18	4,208	1	146	1	4,356
FY 2019	5,148	1	179	1	5,329
FY 2020	6,184	1	215	1	6,401
FY 2021	6,876	1	239	1	7,116
FY 2022	7,568	1	263	1	7,832
FY 2023	8,244	1	286	1	8,533
FY 2024	8,890	1	308	1	9,200
FY 2025	9,486	1	329	1	9,817
FY 2026	10,016	1	348	1	10,366
FY 2027	10,576	1	367	1	10,945

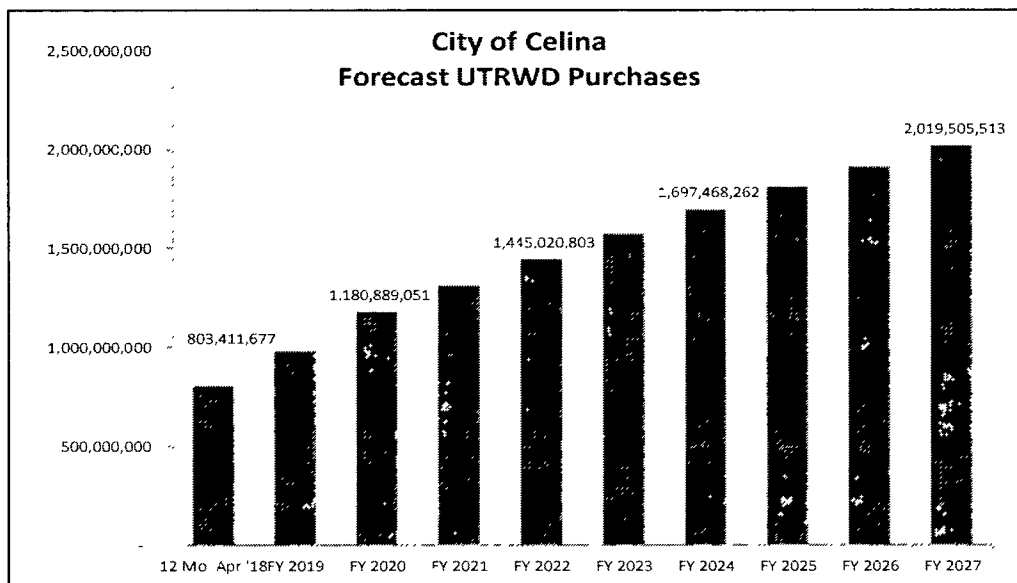
Table ES-4 presents consumption by rate classification for the City for the past three fiscal years and the forecast growth over the next ten years.

TABLE ES-4

CITY OF CELINA					
FORECAST BILLED CONSUMPTION					
	Residential	Residential Outside	Commercial	Commercial Outside	Total
FY 2015	206,962,840	41,836,504	73,571,984	10,199,400	332,570,728
FY 2016	226,356,251	69,370,331	86,881,720	10,076,400	392,684,702
FY 2017	258,818,532	85,140,618	101,681,500	26,425,200	472,065,850
12 Mo Apr '18	308,850,184	100,247,428	104,120,104	22,390,069	535,607,785
FY 2019	377,909,858	122,663,003	127,401,620	27,396,544	655,371,026
FY 2020	453,961,289	147,347,983	153,040,209	32,909,886	787,259,368
FY 2021	504,714,730	163,821,671	170,150,296	36,589,253	875,275,950
FY 2022	555,499,694	180,305,592	187,271,011	40,270,905	963,347,202
FY 2023	605,184,143	196,432,305	204,020,718	43,872,775	1,049,509,940
FY 2024	652,546,384	211,805,269	219,987,558	47,306,296	1,131,645,508
FY 2025	696,319,686	226,013,326	234,744,488	50,479,638	1,207,557,138
FY 2026	735,244,392	238,647,612	247,866,852	53,301,482	1,275,060,338
FY 2027	776,345,014	251,988,163	261,722,764	56,281,068	1,346,337,009

Chart ES-5 presents forecast increase in water purchases (gallons) from UTRWD for the period FY 2019 through FY 2027. The chart reveals that under current circumstances, and assuming no changes to the current UTRWD contractual methodology, the City water purchases are forecast to increase significantly over the next decade.

CHART ES-5



Net Revenue Requirement

Table ES-6 presents the City's forecast Net Revenue Requirement for the ten-year period FY 2018 through FY 2027. Details behind these calculations can be found in the rate model contained in **Appendix A**. This forecast is based on the following set of assumptions:

- Most operating costs are expected to increase at an annual rate of 3%, which is approximately equivalent to the rate of inflation.
- Certain expenses will increase at above-inflation rates, to reflect the rapid rate of increase of these costs. These expenses include chemicals, workers' compensation, Medicare and insurance.
- The City of Celina staff provided guidance on inflation factors used in their budgetary forecasts and these same factors were then applied within the rate model.
- An additional eight employees are anticipated by the City at this time. Two utility billing personnel; two water department personnel; and four wastewater department personnel.
- Utility Billing Costs are distributed to water, solid waste and wastewater based on FY 2018 revenue budgeted for each department.
- The forecast includes an annual transfer to General Fund for General and Administrative services. These transfers are forecast to increase either at the inflation rate.
- As shown in these charts, UTRWD charges are by far the largest annual operating expense paid by Celina's water and wastewater utilities. The project team utilized UTRWD's most recent budgeted rate forecast as the basis for the UTRWD cost estimates. **Any changes in UTRWD forecast rate estimates used in determining the City's water and wastewater revenue requirement for this rate study could require significant changes to the rate plan presented in this report.**
- The City has developed a comprehensive capital improvement plan ("CIP") for its water and wastewater system. The plan includes estimates for infrastructure capital improvements for the ten-year (2018 – 2027) rate study financial planning period. This plan includes an aggressive list of projects required to meet utility service needs for communities like Celina with high growth forecasts in number of accounts and water/wastewater demands. The water CIP includes storage, pumps and distribution lines expansion, repairs and upgrades. The wastewater CIP includes wastewater treatment and collection system expansion and upgrades to infrastructure. In developing a ten-year financial forecast, the project team used the totals provided by the City to determine an overall estimate for capital spending needs for the decade. This total CIP for the next ten years is **\$164,283,000**.
- To fund the long-term capital improvement plan, the City is forecast to issue \$161,000,000 in water and wastewater long-term debt over the next decade. This includes \$112,000,000 of debt between FY 2019 and FY 2023, and \$49,000,000 in debt between FY 2024 and FY 2028. The debt service and coverage requirements are major factors in the City's long-term debt plan.
- Non-rate revenues, particularly revenues from connection and impact fees, are forecast to partially offset the need for rate adjustments in the next decade.

Table ES-6 reveals that the total revenue requirement is expected to increase from **\$7,472,142** in FY 2018 to **\$27,273,073** in FY 2027. The City's utility fund is forecast to be able to meet projected capital and operating expenses in the test year under the recommended rate plan without assistance from the City's General Fund. However, this forecast is highly dependent on the assumptions contained in this study, and any material changes to any of these assumptions may result in significant changes to the revenue requirement.

TABLE ES-6

CITY OF CELINA							
CURRENT AND FORECAST NET REVENUE REQUIREMENT							
SCENARIO: 2018 11 14 Scenario 1 -- Status Quo							
	Operating Expenses	Capital Outlays	Debt Service	Transfers & Contingencies	Total Cost of Service	Less Non-Rate Revenues	Net Revenue Requirement
WATER Revenue Requirement							
2018	\$ 4,139,331	\$ 181,823	\$ 1,313,274	\$ 359,415	\$ 5,993,844	\$ 1,675,083	\$ 4,318,761
2019	4,943,924	181,823	2,507,185	370,198	8,003,129	1,675,083	6,328,046
2020	5,513,776	181,823	2,509,427	381,304	8,586,330	1,793,131	6,793,199
2021	5,959,027	181,823	4,486,450	392,743	11,020,043	1,366,001	9,654,041
2022	6,903,399	181,823	4,487,564	404,525	11,977,310	1,366,534	10,610,777
2023	7,343,750	181,823	5,343,325	416,661	13,285,559	1,347,952	11,937,606
2024	7,794,602	181,823	5,348,069	429,160	13,753,654	1,308,744	12,444,910
2025	8,810,788	181,823	5,555,847	442,035	14,990,493	1,248,149	13,742,344
2026	9,303,199	181,823	5,558,157	455,296	15,498,475	1,166,286	14,332,189
2027	9,826,129	181,823	5,685,162	468,955	16,162,070	1,203,024	14,959,046
WASTEWATER Revenue Requirement							
2018	3,164,382	117,911	907,720	167,585	4,357,598	1,204,217	3,153,381
2019	3,442,607	117,911	1,835,781	172,612	5,568,911	1,204,217	4,364,694
2020	3,770,518	117,911	1,837,331	177,791	5,903,551	1,294,424	4,609,127
2021	4,073,256	117,911	2,825,364	183,124	7,199,656	968,032	6,231,624
2022	4,415,011	117,911	2,826,134	188,618	7,547,675	968,439	6,579,235
2023	4,807,977	117,911	4,276,380	194,277	9,396,546	954,240	8,442,305
2024	5,092,088	117,911	4,279,659	200,105	9,689,764	924,279	8,765,484
2025	5,382,040	117,911	5,865,215	206,108	11,571,275	877,975	10,693,300
2026	5,664,143	117,911	5,866,812	212,291	11,861,158	815,419	11,045,739
2027	5,967,805	117,911	6,853,144	218,660	13,157,520	843,493	12,314,027
TOTAL Revenue Requirement							
2018	7,303,713	299,734	2,220,995	527,000	10,351,442	2,879,300	7,472,142
2019	8,386,530	299,734	4,342,966	542,810	13,572,040	2,879,300	10,692,740
2020	9,284,294	299,734	4,346,759	559,094	14,489,881	3,087,555	11,402,325
2021	10,032,283	299,734	7,311,814	575,867	18,219,698	2,334,034	15,885,665
2022	11,318,410	299,734	7,313,698	593,143	19,524,985	2,334,973	17,190,012
2023	12,151,728	299,734	9,619,706	610,937	22,682,105	2,302,193	20,379,912
2024	12,886,690	299,734	9,627,729	629,266	23,443,418	2,233,024	21,210,394
2025	14,192,829	299,734	11,421,062	648,144	26,561,769	2,126,124	24,435,644
2026	14,967,342	299,734	11,424,969	667,588	27,359,633	1,981,705	25,377,928
2027	15,793,934	299,734	12,538,306	687,615	29,319,589	2,046,516	27,273,073

Water and Wastewater Rate Recommendations

During the course of this study, the project team evaluated several alternative rate plans for the City. After several meetings with staff and Council, it was determined that there would be two alternative rate plans to be presented for consideration. Both rate plans are considered to be revenue neutral, in that each is forecast to recover an equivalent amount of revenue per year. Further, each of the alternative rate plans developed by the project team includes the following objectives:

- Each plan will ensure that water rates will cover the water cost of service and wastewater rates will cover the wastewater cost of service
- Each plan is intended to allow the City to increase its operating reserves from 40 days to 60 days in three years
- Each rate plan presents a forecast of rates for three years. City staff and the project team discussed the adoption of rate plan, with rates to be automatically implemented on January 1st of each year beginning with January 2019 and ending in January 2021
- Given the continued residential and Commercial growth in the City and potential for unexpected events, the project team recommends that the City not commit itself to a rate plan beyond three years. Further, the project team recommends that the City review these rates annually, to incorporate any unanticipated changes to costs, volumes or growth assumptions that may occur during that time.
- The most significant impact on rates will be the cost of UTRWD treated water and wastewater treatment and debt issued to fund the CIP. **Should UTRWD make material changes to its rate forecasts and/or the City changes its forecast of future debt, the City should undertake an immediate review of its rate plan.**

Rate Plan Alternative 1 – Status Quo

Table ES-7 presents a summary of the first alternative water and wastewater rate plan proposed for Residential and Commercial customers. **Table ES-8** presents the impact on monthly charges of both the water and wastewater rate adjustments for representative Residential and Commercial accounts.

As previously mentioned, this alternative retains the basic rate structure for water and wastewater currently in place for the City. It requires a series of annual percentage rate adjustments in January of each year.

In lieu of changing to a winter averaging method for billing residential sewer accounts (Alternative #1), the staff chose to “ratchet” down the 14,000 gallons monthly cap by 1,000 gallons each of the three-year rate plan. The ultimate goal is to reach 9,000 gallons, but that will require a timeframe that extends beyond the three years of this rate plan. Since the average monthly use by residential customers never exceeded 10,000 gallons over the twelve-month test year used in the rate study, 9,000 gallons is considered an appropriate cap for the City residential customers.

In addition, the staff decided that instead of changing $\frac{3}{4}$ " meter monthly charge to equal 1" meter monthly charge they will grandfather the $\frac{3}{4}$ " meter monthly charge. The City is no longer installing $\frac{3}{4}$ " meters for residential customers. 1" is the smallest meter the City will install.

A full exhibit of the 3-year rate plan is presented in **Appendix A** of this report. Appendix A further forecasts rates for a 10-year period. However, beyond FY 2021 the recommended rates should be considered as trends and general

guidelines. Because of the significant volume of and volatility of future growth forecasts, the project team strongly recommends that the rate plan be reviewed every year to ensure that revenues are consistent with forecasts and are adequate to fund all the costs of providing service

TABLE ES-7

CITY OF CELINA		PROPOSED WATER AND WASTEWATER RATE PLAN			
		Scenario: 2018 11 14 Scenario 1 -- Status Quo			
		Effective	Proposed	Proposed	Proposed
		Jan-18	Jan-19	Jan-20	Jan-21
Minimum Charge -- 1st 2,000 Gal					
3/4"		\$ 23.15	\$ 23.84	\$ 24.56	\$ 25.30
1"		38.93	40.10	41.30	42.54
1 1/2"		77.87	80.21	82.61	85.09
2"		124.59	128.33	132.18	136.14
Volume Rate Per 1,000 Gal					
2,001	10,000	5.06	5.21	5.37	5.53
10,001	20,000	7.66	7.89	8.13	8.37
20,001	30,000	9.02	9.29	9.57	9.86
30,001	Above	13.02	13.41	13.81	14.23
Minimum Charge -- 1st 2,000 Gal					
3/4"		\$ 27.81	\$ 28.64	\$ 29.50	\$ 30.39
1"		48.67	50.13	51.63	53.18
1 1/2"		97.34	100.26	103.27	106.37
2"		155.74	160.41	165.22	170.18
3"		233.60	240.61	247.83	255.26
4"		389.34	401.02	413.05	425.44
Volume Rate Per 1,000 Gal					
2,001	10,000	5.06	5.21	5.37	5.53
10,001	20,000	7.66	7.89	8.13	8.37
20,001	30,000	9.02	9.29	9.57	9.86
30,001	Above	13.02	13.41	13.81	14.23
Minimum Charge -- 1st 2,000 Gal					
3/4"		\$ 21.50	\$ 23.44	\$ 25.54	\$ 27.84
1"		38.63	42.11	45.90	50.03
1 1/2"		72.10	78.59	85.66	93.37
2"		123.60	134.72	146.85	160.07
Volume Rate/1,000 Gal (2,001 to 14,000)		5.84	6.37	6.94	7.56
Residential Usage Cap (gallons)		14,000	13,000	12,000	11,000
Minimum Charge -- 1st 2,000 Gal					
3/4"		\$ 25.75	\$ 28.07	\$ 30.59	\$ 33.35
1"		48.29	52.64	57.37	62.54
1 1/2"		90.13	98.24	107.08	116.72
2"		154.50	168.41	183.56	200.08
3"		-	-	-	-
4"		386.25	421.01	458.90	500.20
Volume Rate/1,000 Gal		5.84	6.37	6.94	7.56

TABLE ES-8

CITY OF CELINA		IMPACT OF RATE PLAN ON MONTHLY CHARGES			
		Scenario: Effective Jan-18	2018 11 14 Scenario 1 -- Status Quo Proposed Jan-19	Proposed Jan-20	Proposed Jan-21
Residential Monthly Charges -- 3/4"					
5,000 Water	5,000 WW	\$ 77.35	\$ 82.01	\$ 87.02	\$ 92.42
	Increase -- \$		4.66	5.01	5.39
	Increase -- %		6.0%	6.1%	6.2%
10,000 Water	10,000 WW	131.85	139.90	148.56	157.88
	Increase -- \$		8.05	8.66	9.32
	Increase -- %		6.1%	6.2%	6.3%
20,000 Water	14,000 WW	231.81	244.26	257.58	271.83
	Increase -- \$		12.45	13.32	14.26
	Increase -- %		5.4%	5.5%	5.5%
Commercial Monthly Charges -- 1 1/2"					
30,000 Water	30,000 WW	\$ 558.27	\$ 590.24	\$ 624.53	\$ 661.35
	Increase -- \$		31.97	34.30	36.82
			5.7%	5.8%	5.9%
60,000 Water	60,000 WW	1,124.07	1,183.52	1,247.08	1,315.06
	Increase -- \$		59.45	63.55	67.98
	Increase -- %		5.3%	5.4%	5.5%

Rate Plan Alternative 2 – Wastewater Inverted Block

Table ES-9 presents a summary of the second alternative water and wastewater rate plan proposed for Residential and Commercial customers. **Table ES-10** presents the impact on monthly charges of both the water and wastewater rate adjustments for representative Residential and Commercial accounts.

As previously mentioned, this alternative retains the basic rate structure for water and wastewater currently in place for the City. It requires a series of annual percentage rate adjustments in January of each year. However, while water rates are unchanged from Alternative #1, wastewater rates are converted into an inverted block for residential wastewater customers.

This alternative also includes the ratcheting down of the wastewater usage cap, as well as the grandfathering of 3/4" water meters.

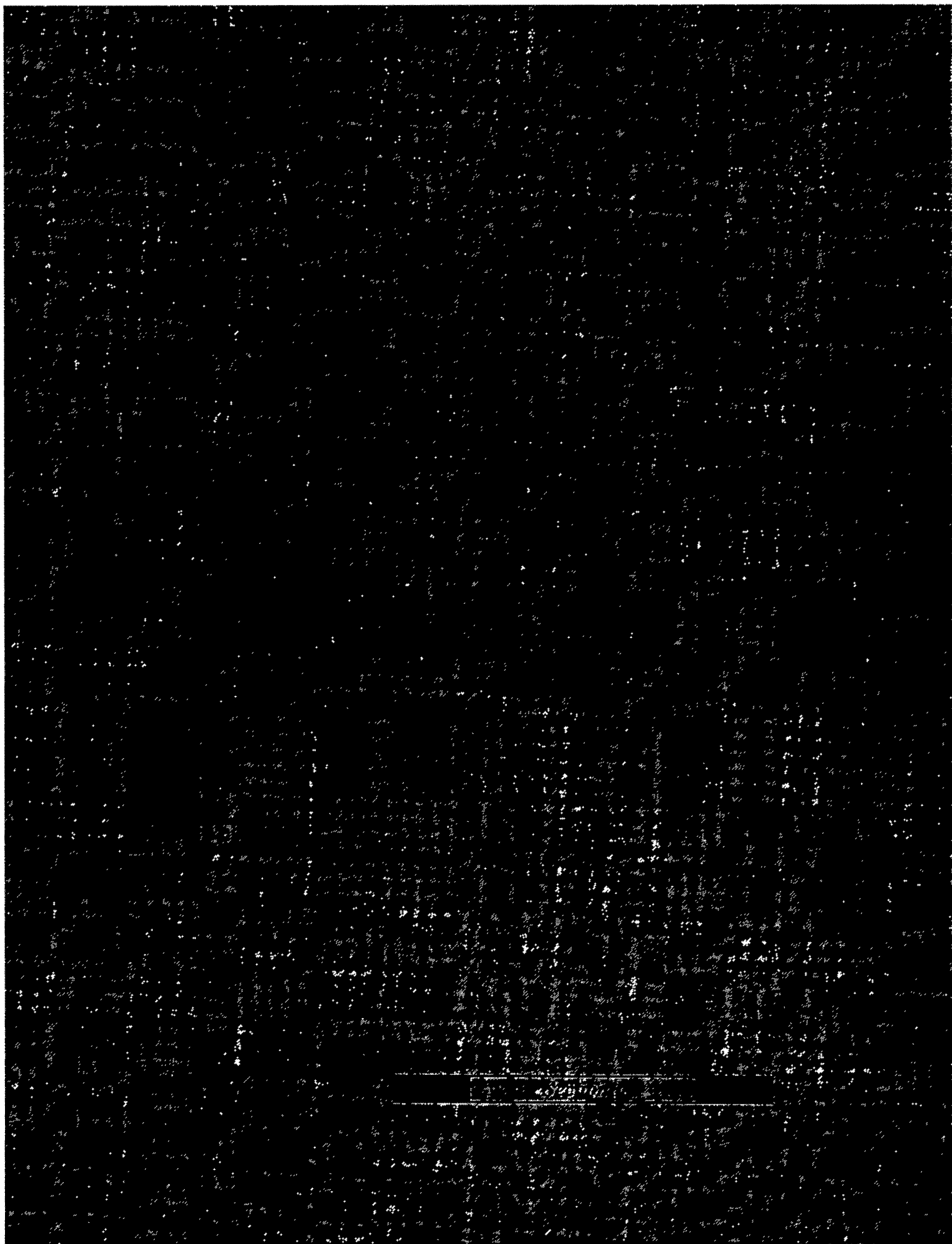
A full exhibit of the 3-year rate plan is presented in **Appendix B** of this report. Appendix B further forecasts rates for a 10-year period. However, beyond FY 2021 the recommended rates should be considered as trends and general guidelines. Because of the significant volume of and volatility of future growth forecasts, **the project team strongly recommends that the rate plan be reviewed every year to ensure that revenues are consistent with forecasts and are adequate to fund all the costs of providing service.**

TABLE ES-9

CITY OF CELINA		PROPOSED WATER AND WASTEWATER RATE PLAN			
		Scenario: Effective Jan-18	2018 11 14 Scenario 2 -- WW Inverted Block Proposed Jan-19	Proposed Jan-20	Proposed Jan-21
Water Rates					
<u>Minimum Charge -- 1st 2,000 Gal</u>					
3/4"		\$ 23.15	\$ 23.84	\$ 24.56	\$ 25.30
1"		38.93	40.10	41.30	42.54
1 1/2"		77.87	80.21	82.61	85.09
2"		124.59	128.33	132.18	136.14
<u>Volume Rate Per 1,000 Gal</u>					
2,001	10,000	5.06	5.21	5.37	5.53
10,001	20,000	7.66	7.89	8.13	8.37
20,001	30,000	9.02	9.29	9.57	9.86
30,001	Above	13.02	13.41	13.81	14.23
Commercial					
<u>Minimum Charge -- 1st 2,000 Gal</u>					
3/4"		\$ 27.81	\$ 28.64	\$ 29.50	\$ 30.39
1"		48.67	50.13	51.63	53.18
1 1/2"		97.34	100.26	103.27	106.37
2"		155.74	160.41	165.22	170.18
3"		233.60	240.61	247.83	255.26
4"		389.34	401.02	413.05	425.44
<u>Volume Rate Per 1,000 Gal</u>					
2,001	10,000	5.06	5.21	5.37	5.53
10,001	20,000	7.66	7.89	8.13	8.37
20,001	30,000	9.02	9.29	9.57	9.86
30,001	Above	13.02	13.41	13.81	14.23
Residential					
<u>Minimum Charge -- 1st 2,000 Gal</u>					
3/4"		\$ 21.50	\$ 23.44	\$ 25.54	\$ 27.84
1"		38.63	42.11	45.90	50.03
1 1/2"		72.10	78.59	85.66	93.37
2"		123.60	134.72	146.85	160.07
Volume Rate/1,000 Gal (2,001 to 5,000)		5.84	5.84	6.37	6.94
Volume Rate/1,000 Gal (5,001 to 14,000)		5.84	7.23	7.88	8.59
Residential Usage Cap (gallons)		14,000	13,000	12,000	11,000
Industrial					
<u>Minimum Charge -- 1st 2,000 Gal</u>					
3/4"		\$ 25.75	\$ 28.07	\$ 30.59	\$ 33.35
1"		48.29	52.64	57.37	62.54
1 1/2"		90.13	98.24	107.08	116.72
2"		154.50	168.41	183.56	200.08
3"		-	-	-	-
4"		386.25	421.01	458.90	500.20
Volume Rate/1,000 Gal		5.84	6.37	6.94	7.56

TABLE ES-10

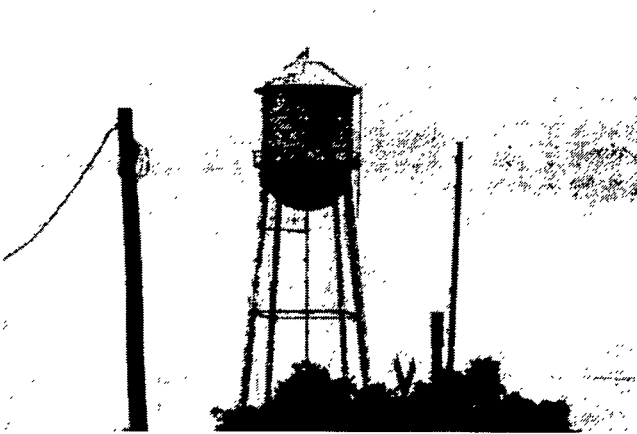
CITY OF CELINA		IMPACT OF RATE PLAN ON MONTHLY CHARGES			
		Scenario: Effective Jan-18	2018 11 14 Scenario 2 -- WW Inverted Block Proposed Jan-19	Proposed Jan-20	Proposed Jan-21
Residential Monthly Charges -- 3/4"					
5,000 Water	5,000 WW	\$ 77.35	\$ 80.43	\$ 85.31	\$ 90.54
	Increase -- \$		3.08	4.87	5.24
	Increase -- %		4.0%	6.1%	6.1%
10,000 Water	10,000 WW	131.85	142.64	151.55	161.14
	Increase -- \$		10.79	8.91	9.59
	Increase -- %		8.2%	6.2%	6.3%
20,000 Water	14,000 WW	231.81	250.46	264.34	279.20
	Increase -- \$		18.65	13.88	14.86
	Increase -- %		8.0%	5.5%	5.6%
Commercial Monthly Charges -- 1 1/2"					
30,000 Water	30,000 WW	\$ 558.27	\$ 590.24	\$ 624.53	\$ 661.35
	Increase -- \$		31.97	34.30	36.82
			5.7%	5.8%	5.9%
60,000 Water	60,000 WW	1,124.07	1,183.52	1,247.08	1,315.06
	Increase -- \$		59.45	63.55	67.98
	Increase -- %		5.3%	5.4%	5.5%



SECTION I

Introduction and Demographic Profile

Background



In April 2018, the City of Celina, Texas (the “City”) engaged **Willdan Financial Services** to conduct a water and wastewater rate study and long-term financial plan. The City was interested in developing a comprehensive rate plan for FY 2018 and beyond. The objective of this study is to develop a long-term rate plan that will enable the City to recover sufficient funds to meet operating expenses, capital outlays, debt service and coverage requirements, while at the same time to the best extent possible minimizing the impact of any adjustments on ratepayers.

The City identified numerous objectives for this study, including but not limited to the following:

- A comprehensive analysis and evaluation of the water and wastewater systems’ current cost of service and revenue requirements.
- A forecast of operating expenses over the next ten years, taking into consideration such factors as inflation, system growth, and increases in staffing levels.
- A review and analysis of the impact of forecast cost increases from Upper Trinity Regional Water District (“UTRWD”), the City’s primary water and wastewater wholesale service provider, on the City’s retail rates.
- A thorough review of the water and wastewater systems’ known capital improvement needs, as well as a determination of the need for funding capital requirements through the issuance of long-term debt for the existing identified capital improvements.
- An estimate of current and forecast accounts, volumes and billing units for the forecast period.
- An analysis of alternative multi-year water and wastewater rate plans that will achieve the City’s objectives while ensuring that the cost of service is fully recovered.
- A detailed analysis and comparison of the City’s current and proposed rates to rates in other surrounding communities.

Report Organization

This report is organized into the following sections:

Section I – Introduction and Demographic Profile - outlines the background, objectives and scope of this rate study and long-term financial plan. It also presents the City's current rate structure and a community profile of the City of Celina. This includes a comparison of the City's water and wastewater charges with other Texas cities.

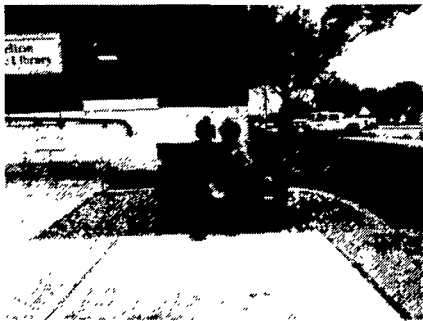
Section II – Water and Wastewater Test Year and Forecast Volumes – analyzes the City's customer base, total accounts and current volumes of treated water and wastewater. This section presents totals for the current year and a forecast ten years into the future.

Section III – Water and Wastewater Test Year and Forecast Revenue Requirement – outlines the process of analyzing the City's current water and wastewater utility cost structure. The total current or "test year" revenue requirements are developed, and costs are functionalized between treatment, distribution/collection, administration and customer billing. Using the test year as a basis, costs are forecast for a ten-year period.

Section IV – Water and Wastewater Rate Design – presents the Council-preferred rate recommendations for the City of Celina. Each plan is intended to be revenue neutral and will allow for the City to recover its full cost of service. This section also presents an analysis of the impact of each rate plan on residential and Commercial customers.

Appendix A – presents a hard copy printout of the interactive Microsoft Excel spreadsheet model summary developed for the City of Celina to calculate water and wastewater current and future revenue requirements. The model automatically generates all calculations based on a set of defined user inputs and has an executive dashboard for users to develop real-time "what-if" scenarios.

City Overview



The City of Celina, Texas is located approximately 30 miles north of Dallas. The City has seen tremendous growth over the past 15 years, but the growth rate is expected to begin tapering off toward the end of this study's financial planning period. The City encompasses approximately 14 square miles and has a 2017 population of 9,836. The City is situated primarily in Collin County with a limited amount of territory in neighboring Denton County.

The City of Celina has a Council-Manager form of government in which the elected Mayor and City Council Members establish policy. Those policies are then implemented by the City Manager who is appointed by, and reports to, the City Council.

The Celina City Council consists of six Council Members and the Mayor. All Council members and the Mayor are elected at large. The City Manager operates in much the same manner as a Chief Executive Officer of a corporation. The City Manager's Office is responsible for the day-to-day administration of Celina's City government, including managing the City's budget, the City's departments and operations, and communicating with residents and employees.



Water and Wastewater Current Rates

Table I-1 summarizes the City of Celina's current water and wastewater rate structure. The City last adjusted its rates in January 2018.

TABLE I-1

CITY OF CELINA				CURRENT WATER AND WASTEWATER RATES			
				Wastewater Rates			
				Residential Rates			
Minimum Charge by Meter Size (Includes 2,000 Gallons in Base)	3/4"	\$	23 15	Minimum Charge (Includes 2,000 Gallons in Base)	3/4"	\$	21.50
	1"		38 93		1"		38.63
	1 1/2"		77 87		1 1/2"		72 1
	2"		124 59		2"		123 6
Volume Rate (per 1,000 Gallons)				Volume Rate (per 1,000 Gallons)			
	2,001 10,000	\$	5 06			\$	5.84
	10,001 20,000		7 66	* Volumes are capped at 14,000 monthly water use			
	20,001 30,000		9 02				
	30,001 Above		13 02				
				Commercial Rates			
Minimum Charge by Meter Size (Includes 2,000 Gallons in Base)	3/4"	\$	27 81	Minimum Charge by Meter Size (Includes 2,000 Gallons in Base)	3/4"	\$	25 75
	1"		48 67		1"		48.29
	1 1/2"		97 34		1 1/2"		90 13
	2"		155 74		2"		154.50
	3"		233 60		4"		386.25
	4"		389 34				
Volume Rate (per 1,000 Gallons)				Volume Rate (per 1,000 Gallons)			
	2,001 10,000	\$	5 06			\$	5.84
	10,001 20,000		7 66				
	20,001 30,000		9 02				
	30,001 Above		13 02				
				Outside Residential Rates			
Minimum Charge by Meter Size (Includes 2,000 Gallons in Base)	3/4"	\$	34 72	Minimum Charge (Includes 2,000 Gallons in Base)	3/4"	\$	32.25
	1"		58 40		1"		57.95
	1 1/2"		116 81		1 1/2"		108 15
	2"		186 89		2"		185 40
Volume Rate (per 1,000 Gallons)				Volume Rate (per 1,000 Gallons)			
	2,001 10,000	\$	7 59			\$	8 76
	10,001 20,000		11 49	* Volumes are capped at 14,000 monthly water use			
	20,001 30,000		13 53				
	30,001 Above		19 53				
				Outside Commercial Rates			
Minimum Charge by Meter Size (Includes 2,000 Gallons in Base)	3/4"	\$	41 72	Minimum Charge by Meter Size (Includes 2,000 Gallons in Base)	3/4"	\$	38.63
	1"		73.01		1"		72 44
	1 1/2"		146.01		1 1/2"		135.20
	2"		233.61		2"		231.75
	3"		350 40		4"		579 38
	4"		584 01				
Volume Rate (per 1,000 Gallons)				Volume Rate (per 1,000 Gallons)			
	2,001 10,000	\$	7 59			\$	8 76
	10,001 20,000		11.49				
	20,001 30,000		13 53				
	30,001 Above		19 53				

Water accounts served by Celina are classified as Residential, Commercial and Outside City Residential/Commercial. The water rate structure assesses a base charge by meter size. All customer classes include a 2,000-gallon allowance in the base charge. Consumption volume is billed based on tiered rates per 1,000 gallons. The tiered rates differ nominally for each customer class.

Residential and Commercial wastewater rates are assessed a base charge by meter size. All customer classes include a 2,000-gallon allowance in the base charge. A volume charge is based on metered water consumption. Residential customers' bills are capped at 14,000 gallons per month. Both Residential and Commercial wastewater accounts are assessed a uniform volume charge per 1,000 gallons for all recorded water consumption.

Water and Wastewater Rate Comparison

Chart I-2 and Table I-3 compare the City's monthly water and wastewater charges to nearby cities and water systems in Texas. Volumes of 5,000 gallons for water and 5,000 gallons for wastewater were used for the residential comparison as it represents typical usage levels for an average household.

The rate data is based on published rates and ordinances posted by each municipality on their website. These rates do not include sales tax, activation or other charges beyond the basic minimum and volume charges.

The following points are notable:

- Among residential accounts Celina's charges for monthly water and wastewater service is in the mid-range of water system charges in the Dallas-Fort Worth metroplex.
- For 5,000 gallons of water and wastewater usage, Celina's residential charges are approximately \$1 below the state average.
- It should be noted that according to US governmental statistics, as many as 30% of water and wastewater utilities charge rates that do not cover their costs. So if a utility has low rates, this does not necessarily translate into low costs.

CHART I-2

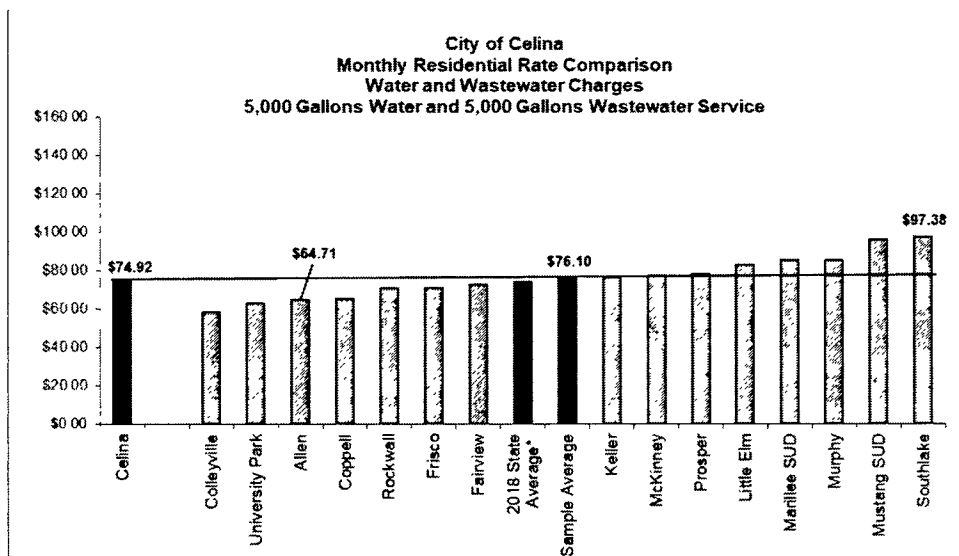
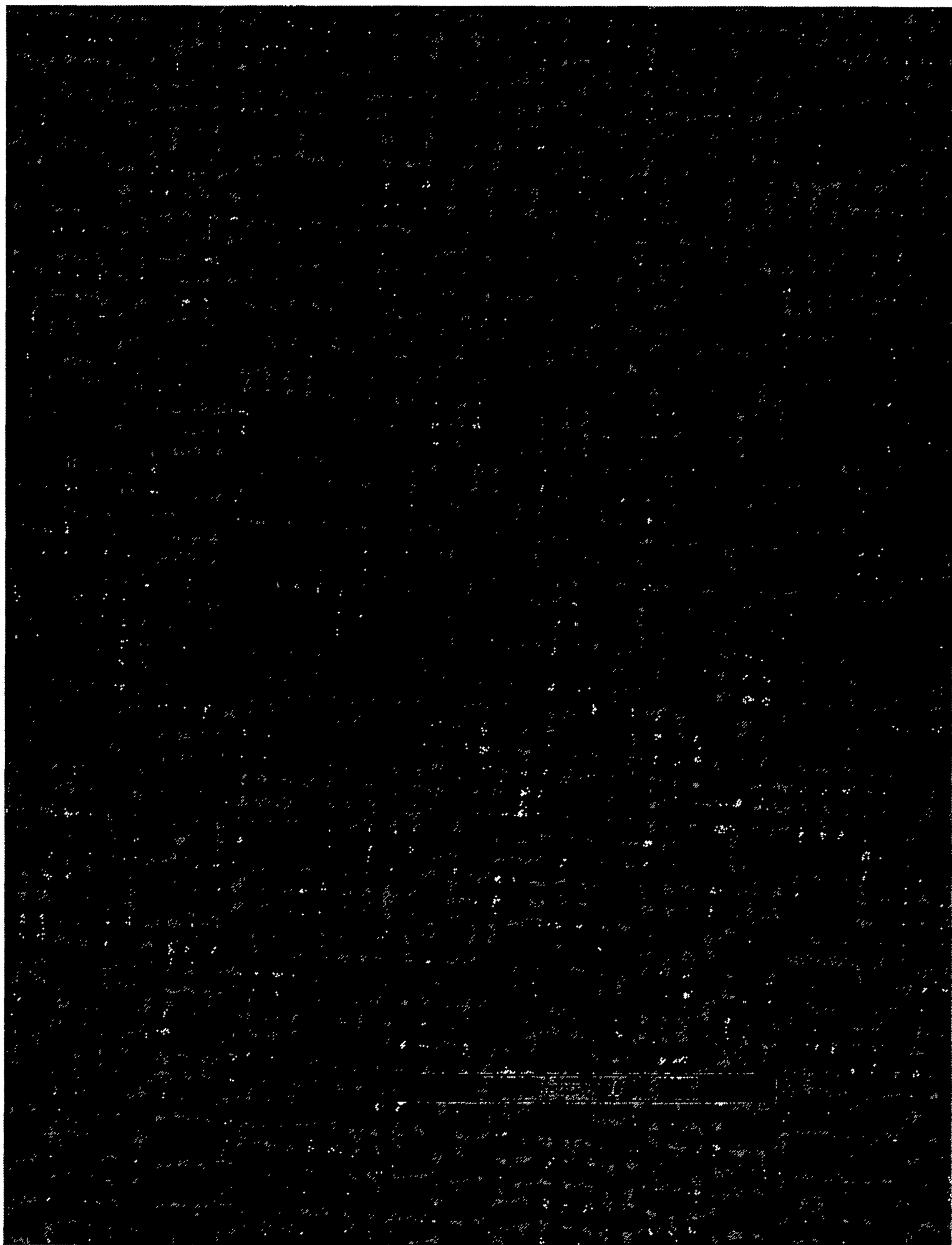


TABLE I-3

CITY OF CELINA					
	Water		Wastewater		Total
Celina	\$	37.13	\$	37.79	\$ 74.92
Allen		31.97		32.74	64.71
Frisco		29.21		41.52	70.73
Mustang SUD		44.05		51.60	95.65
Prosper		31.90		46.12	78.02
Colleyville		33.06		25.27	58.33
Coppell		33.60		31.36	64.96
University Park		29.13		33.60	62.73
Rockwall		35.72		34.90	70.62
Fairview		35.42		37.08	72.50
Keller		40.84		35.35	76.19
Murphy		46.38		38.87	85.25
McKinney		37.45		39.85	77.30
Southlake		54.17		43.21	97.38
Little Elm		40.76		42.29	83.05
Marilee SUD		47.40		37.79	85.19
Sample Average		38.01		38.08	76.10
2018 State Average*		38.21		35.99	74.21
Source: Cities' Website ; US Census Bureau & municipal websites					





SECTION II

Water & Wastewater Test Year and Forecast Volumes



In order to accurately forecast future revenues and expenses, it is necessary to examine current water and wastewater utility conditions. The first step in developing cost of service rates is to analyze patterns of usage, both for the system as a whole, and for specified customer classes.

For the City of Celina, monthly water and wastewater records were reviewed for the period of October 2014 through April 2018. These records provided summary information on the monthly water volumes distributed system-wide as well as the number of accounts for each period by defined customer class and the associated revenues. Additionally, these records

provided the number of accounts and revenues monthly for all classifications of wastewater customers.

According to standard utility ratemaking methodology, in order to allocate revenue requirements equitably among system users, customers must be classified into relatively homogeneous groups with similar usage characteristics or service demands. Costs are then allocated to the customer classes in proportion to the usage characteristics of each class. For the water system, costs are typically allocated to customers based on their average and peak water demands. For the wastewater system, costs are allocated to customers based on their estimated wastewater flows, and in some cases, based on wastewater strengths.

After thoroughly examining volume and customer data, the project team made no revisions to the City's existing customer classifications. The project team finds these customer class distinctions to be reasonable and appropriate, meeting the criteria of homogenous groups with similar usage patterns.

In this section, the City's functional customer classes and test year usage patterns will be thoroughly analyzed. A five-year projection of customers and usage will also be presented. These forecasts, along with the revenue requirements, will form the basis of the proposed rate designs.

Population – Current and Projected

Like many other North Texas communities, the City of Celina has experienced a high rate of growth for the past 15 - 20 years. The City is not expected to reach build-out in the next decade. **Chart II-1** presents actual and forecast population for the period 2010 through 2030. The chart reveals that as of 2010 the City's population was approximately 6,028. According to the US Census, as of 2015 the population had reached 7,690. According to the City's staff, the population is estimated to exceed 25,000 in 2020. By 2030 the City's Comprehensive plan projects that the City's population will reach 48,000.

CHART II-1

CITY OF CELINA			
Historical and Forecast Population			
	Population	Increase	Ave Annual Percent
2010 ^[1]	6,028		
2015 ^[1]	7,690	1,662	5.0%
2020 ^[2]	25,868	18,178	27.5%
2030 ^[3]	48,000	22,132	6.4%
[1] - US Census [2] - Per Staff [3] - Celina 2013 Comprehensive Plan			

It is important to note that these projections are always subject to shifts due to multiple factors beyond the City's control.

Water and Wastewater Customers and Meters – Test Year & Ten-Year Forecast

Table II-2 and **Chart II-3** present total historical and forecast water accounts for the City. For each of the historical years, the average number of accounts for the year is shown and the growth reflects the difference from one fiscal year end to the next. The charts reveal that in 2016 and 2017 the City experienced growth of approximately 590 and 820 accounts, respectively. The project team is forecasting that account growth will continue in future years but at a lesser rate. The forecast projects that the test year 2018 total of **5,090** total water accounts will increase to **12,795** total water accounts by 2027.

The charts further reveal that residential accounts represent the largest water customer class, at 3,611 accounts in the test year 2018.

TABLE II-2

CITY OF CELINA					
FORECAST TOTAL CUSTOMERS					
Fiscal Year	Residential	Residential Outside	Commercial	Commercial Outside	Total
WATER					
FY 2015	2,477	593	219	24	3,313
FY 2016	2,760	892	223	24	3,899
FY 2017	3,320	1,131	239	27	4,717
12 Mo. Apr '18	3,611	1,211	241	28	5,090
FY 2019	4,418	1,481	295	34	6,228
FY 2020	5,308	1,779	354	40	7,482
FY 2021	5,901	1,978	394	45	8,318
FY 2022	6,495	2,177	433	49	9,155
FY 2023	7,076	2,372	472	54	9,974
FY 2024	7,629	2,558	509	58	10,754
FY 2025	8,141	2,729	543	62	11,476
FY 2026	8,596	2,882	574	65	12,117
FY 2027	9,077	3,043	606	69	12,795
SEWER					
FY 2016	283	299	4	-	586
FY 2017	560	239	16	3	818
12 Mo. Apr '18	291	80	2	1	373
FY 2019	807	271	54	6	1,138
FY 2020	889	298	59	7	1,253
FY 2021	593	199	40	5	836
FY 2022	594	199	40	5	837
FY 2023	581	195	39	4	819
FY 2024	554	186	37	4	781
FY 2025	512	172	34	4	721
FY 2026	455	153	30	3	641
FY 2027	481	161	32	4	677

CHART II-3

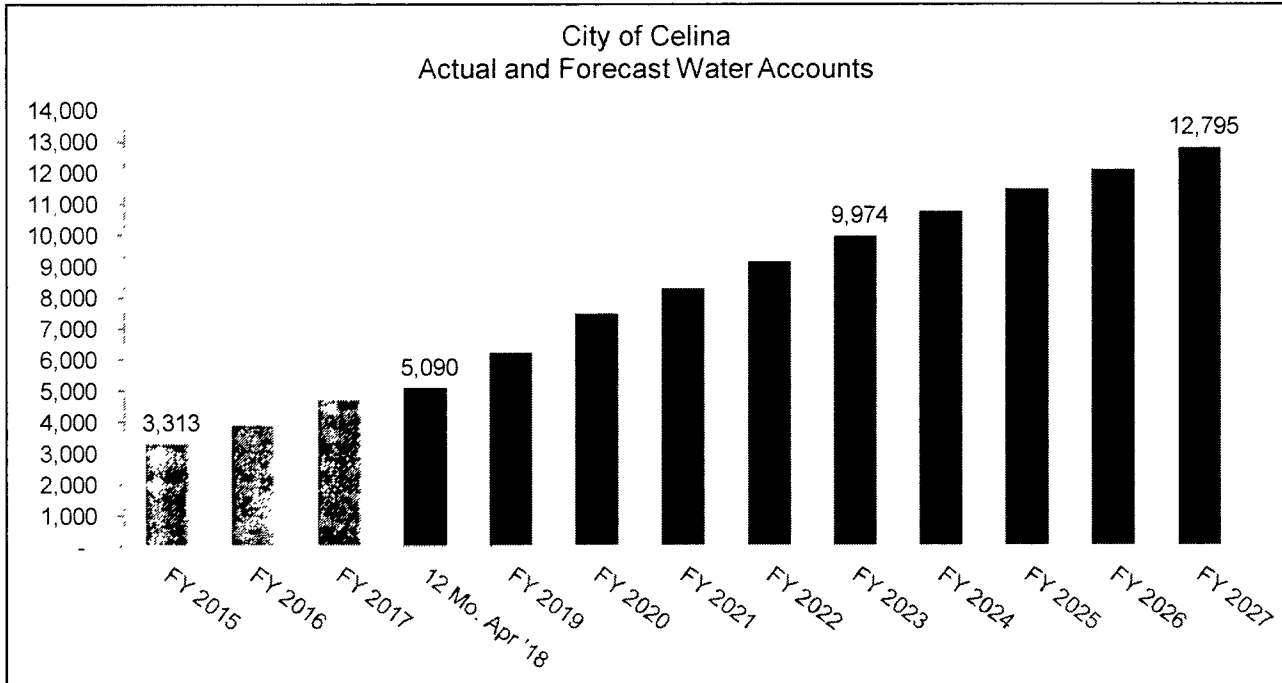


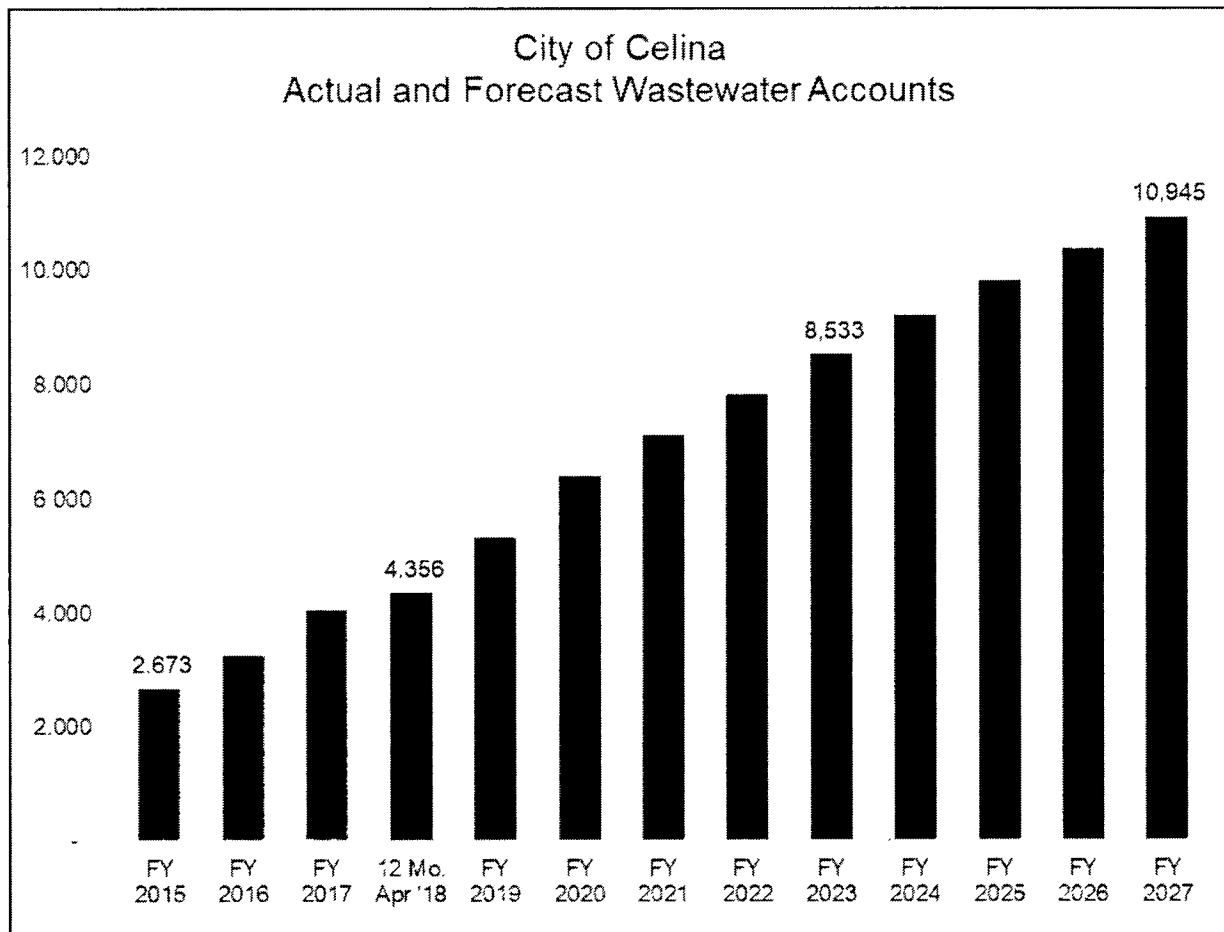
Table II-4 and **Chart II-5** present wastewater accounts and classifications for the City for the past three fiscal years and the forecast growth over the next ten years. The tables reveal that the City's total wastewater accounts of **4,356** in FY 2018 are forecast to increase to **10,945** by FY 2027.



TABLE II-4

CITY OF CELINA					
FORECAST TOTAL CUSTOMERS WASTEWATER Customer Classes					
	Residential	Residential Outside	Commercial	Commercial Outside	Total
WASTEWATER Total Customers					
FY 2015	2,540	1	131	1	2,673
FY 2016	3,118	1	129	1	3,249
FY 2017	3,930	1	130	1	4,062
12 Mo. Apr '18	4,208	1	146	1	4,356
FY 2019	5,148	1	179	1	5,329
FY 2020	6,184	1	215	1	6,401
FY 2021	6,876	1	239	1	7,116
FY 2022	7,568	1	263	1	7,832
FY 2023	8,244	1	286	1	8,533
FY 2024	8,890	1	308	1	9,200
FY 2025	9,486	1	329	1	9,817
FY 2026	10,016	1	348	1	10,366
FY 2027	10,576	1	367	1	10,945
WASTEWATER Annual New Customers					
FY 2016	578	-	(2)	-	576
FY 2017	812	-	1	-	813
12 Mo. Apr '18	278	-	16	-	294
FY 2019	941	-	33	-	973
FY 2020	1,036	-	36	-	1,072
FY 2021	691	-	24	-	715
FY 2022	692	-	24	-	716
FY 2023	677	-	23	-	700
FY 2024	645	-	22	-	668
FY 2025	596	-	21	-	617
FY 2026	530	-	18	-	549
FY 2027	560	-	19	-	579

CHART II-5



Historical and Forecast Water Consumption

Total water system consumption data was analyzed over the same period as customer data. The project team prepared a ten-year forecast of water usage based on the same principles on which customer accounts were projected.

Chart II-6 presents test year water consumption by defined customer class. Residential presents the highest percentage of usage (approximately 58%), but the City's outside residential and commercial class accounts make up approximately 40% (19% each) of the total gallons sold.

Chart II-7 presents the average monthly consumption by customer class in the Test Year. Residential customers' water usage averages approximately 6,700 gallons per month.

Chart II-6

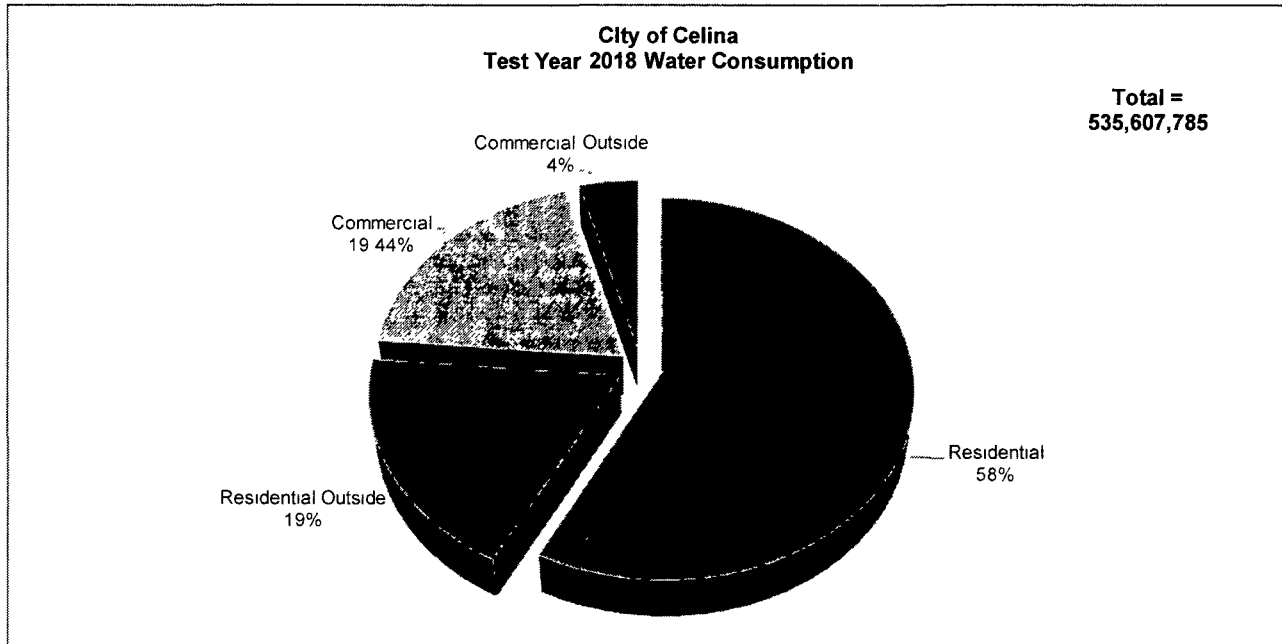


CHART II-7

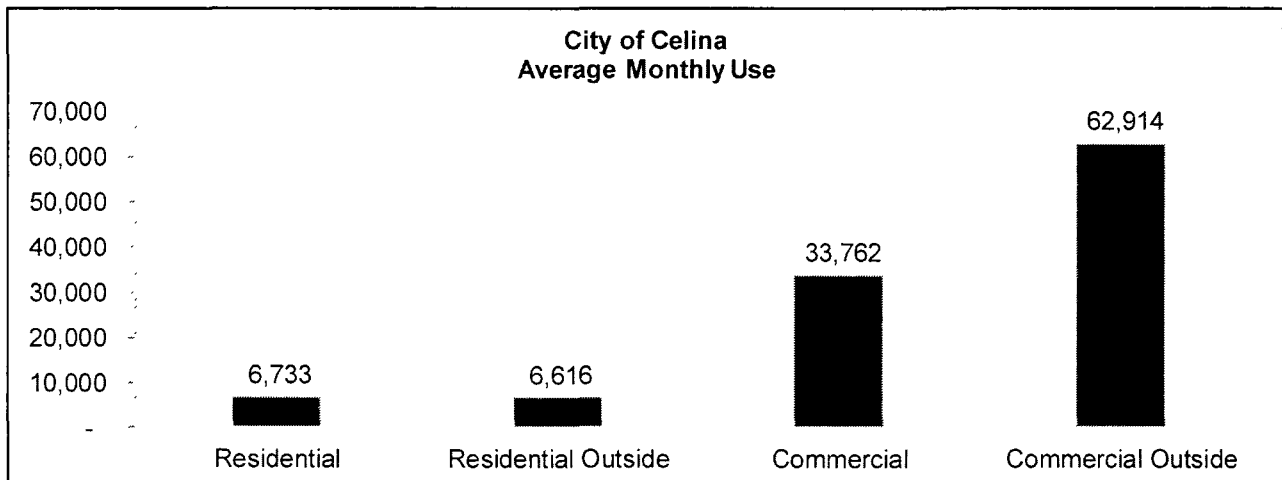
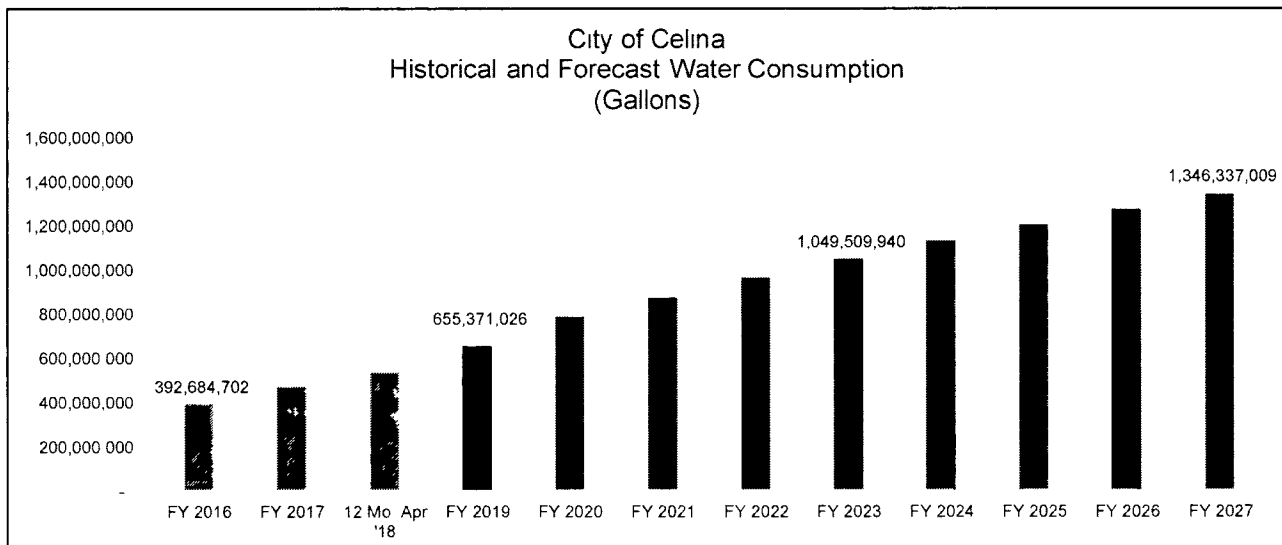


Table II-8 and **Chart II-9** which present consumption by rate classification for the City for the past three fiscal years and the forecast growth over the next ten years.

TABLE II-8

CITY OF CELINA					
FORECAST BILLED CONSUMPTION					
	Residential	Residential Outside	Commercial	Commercial Outside	Total
FY 2015	206,962,840	41,836,504	73,571,984	10,199,400	332,570,728
FY 2016	226,356,251	69,370,331	86,681,720	10,076,400	392,684,702
FY 2017	258,818,532	85,140,618	101,681,500	26,425,200	472,065,850
12 Mo Apr '18	308,850,184	100,247,428	104,120,104	22,390,069	535,607,785
FY 2019	377,909,858	122,663,003	127,401,620	27,396,544	655,371,026
FY 2020	453,961,289	147,347,983	153,040,209	32,909,886	787,259,368
FY 2021	504,714,730	163,821,671	170,150,296	36,589,253	875,275,950
FY 2022	555,499,694	180,305,592	187,271,011	40,270,905	963,347,202
FY 2023	605,184,143	196,432,305	204,020,718	43,872,775	1,049,509,940
FY 2024	652,546,384	211,805,269	219,987,558	47,306,296	1,131,645,508
FY 2025	696,319,686	226,013,326	234,744,488	50,479,638	1,207,557,138
FY 2026	735,244,392	238,647,612	247,866,852	53,301,482	1,275,060,338
FY 2027	776,345,014	251,988,163	261,722,764	56,281,068	1,346,337,009

CHART II-9



Peaking Factors

The cost of providing water to customers depends not only on the amount of water each class uses, but also on how that usage occurs over time. The maximum-day and maximum-hour peaking requirements of a water utility's customers are an important influence on the utility's costs. Because water utilities attempt to meet all the demands of their customers, water systems are sized to meet customers' peak requirements. Therefore, during off-peak periods, there are usually significant costs associated with the unused capacity of the system. These costs must be

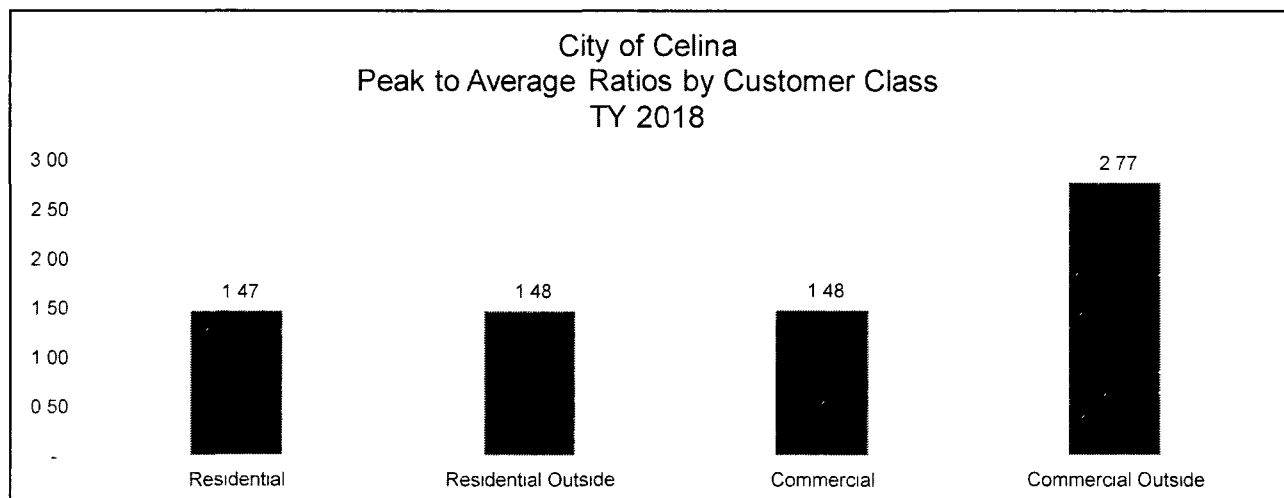
allocated to customers in proportion to the contribution of each customer class to the system peak, to develop equitable cost-based rates. Thus, it is necessary to determine the peak rate of use relative to the average rate of use for each class. This ratio is called a **Peaking Factor**.

The consumption data by class provided by the City was utilized in the rate model to calculate the peak day factor and peaking factors for individual rate classes.

The calculation of peaking factors for individual classes relies on available pumping and consumption information as well as professional judgment. If customer meters could record daily flow rates for each customer, more refined information could be obtained on peaking factors. This is not feasible because of the enormous cost that would be imposed on the utility. Therefore, it is accepted practice in the water industry to develop peaking factor estimates based on standard formulas using system peak day information and monthly customer class usage records. This is a conservative methodology, since customer class peaking factors based on peak months will inevitably be lower than the system-wide peaking factor, which is based on the peak day.

Based on AWWA guidelines, the customer class peaking factors calculated in this study are for non-coincidental peaks. The peaking factors developed for this analysis are based on the annualized water consumption by customer class for the months of May 2017 through April 2018. The calculations of the peaking factors by class are presented graphically in **Chart II-10**.

CHART II-10



A general ratemaking rule is that **the higher the peak to average ratio, the higher the unit cost of service for a given customer class**. While this is not an absolute rule, it is a good general indicator as to which customer classes are incurring the greatest costs to provide service. This principle will be examined more thoroughly in Section III.

The chart reveals that the highest peak to average ratio is for the **Commercial Outside** customer class. Also, it is notable that at this time the residential and commercial peak to average ratios are equivalent. This may change as more commercial development enters the City in the coming decade.

Historical and Forecast Wastewater Flows

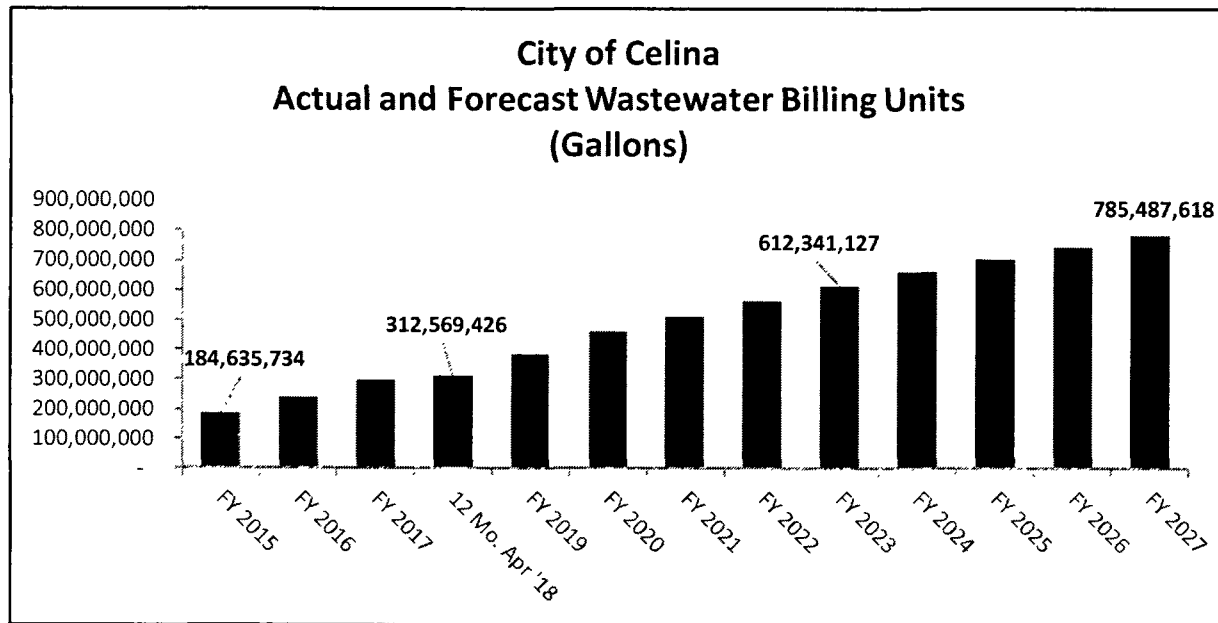
The City currently calculates wastewater charges for all customers based on their total volume of water consumption. The wastewater charges for Single-Family Residential customer class is capped at 14,000 gallons water consumption per month.

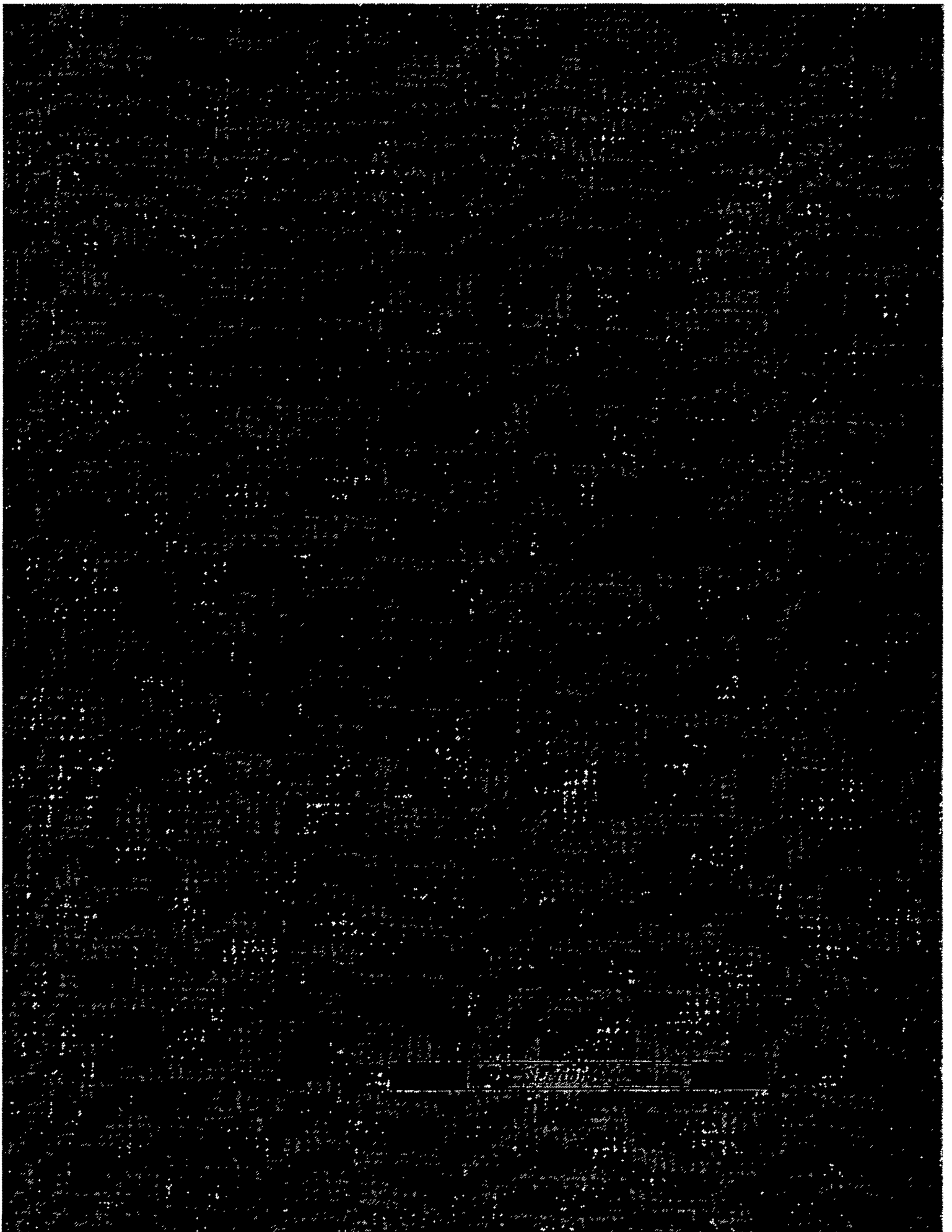
As with water billed consumption, the project team prepared a ten-year forecast of wastewater billing units. Since individual customer wastewater flow is not metered, it is derived from the water consumption figures for each customer class. The billing unit forecast is derived using anticipated growth in accounts as depicted in Table II-4. The results of the forecast are presented in **Table II-11** and **Chart II-12**.

TABLE II-11

CITY OF CELINA					
FORECAST WASTEWATER BILLING UNITS					
WASTEWATER Customer Classes					
	Residential	Residential Outside	Commercial	Commercial Outside	Total
WASTEWATER Historical Billing Units					
FY 2015	168,638,444	156,100	15,748,990	92,200	184,635,734
FY 2016	217,345,047	86,100	20,605,360	92,600	238,129,107
FY 2017	276,165,029	72,600	21,126,552	74,400	297,438,581
WASTEWATER Forecast Billing Units					
12 Mo. Apr '18	288,193,448	76,000	24,239,678	60,300	312,569,426
FY 2019	352,634,224	76,000	29,659,731	60,300	382,430,254
FY 2020	423,599,130	76,000	35,628,521	60,300	459,363,951
FY 2021	470,958,042	76,000	39,611,835	60,300	510,706,177
FY 2022	518,346,371	76,000	43,597,622	60,300	562,080,293
FY 2023	564,707,790	76,000	47,497,037	60,300	612,341,127
FY 2024	608,902,316	76,000	51,214,197	60,300	660,252,813
FY 2025	649,747,940	76,000	54,649,684	60,300	704,533,924
FY 2026	686,069,257	76,000	57,704,635	60,300	743,910,192
FY 2027	724,420,958	76,000	60,930,360	60,300	785,487,618

CHART II-12





SECTION III

Water & Wastewater Forecast Revenue Requirement



In this section of the water and wastewater rate study and long-term financial plan, the City of Celina's test year and forecast water and wastewater utility revenue requirements are developed. The test year consists of the City's current fiscal year, October 1, 2017 through September 30, 2018. The estimates presented in this section are based on the City's approved budget for FY 2018.

The calculation of a revenue requirement differs from a utility's budget in that it represents only that amount that must be raised through the City's user rates. This means that non-rate revenue (such as reconnection fees, late payment charges and interest) must be subtracted from the budgeted operating and capital expenditures to determine the net revenue requirement to be raised from rates.

As is typical for publicly owned utilities, the City of Celina's system revenue requirements were developed using the cash basis of ratemaking. Under the cash basis, as defined by the AWWA Manual

M-1, system revenue requirements consist of cash expenditures and other financial commitments (such as debt service coverage or reserves) that must be met through system operating revenues and other revenue sources.

All data used in the development of the revenue requirements was obtained from the financial statements, budgets and other information provided by the City. Calculation summaries are presented in the rate model summaries contained in **Appendix A** of this report. For rate design purposes, revenue requirements are developed separately for the water and wastewater systems.

The assumptions utilized in this expense forecast will be thoroughly detailed in this section of the report. These assumptions are critical to the development of both the revenue requirement and the ultimate rate recommendation. The project team reviewed these assumptions with the City staff and considers all to be consistent with staff recommendations.

In this section, current and forecast Operating Costs, Capital Outlays, Transfers, and Debt Service will be examined first. Non-rate revenues will be subtracted from the total to yield the Net Revenue Requirement.

Operating Expenses and Capital Outlays – Test Year

Table III-1 summarizes the test year FY 2018 water system operating expenses and capital outlays in detail by department. **Table III-2** presents the test year FY 2018 operating expenses and capital outlays in detail by department for the wastewater system.

The City's Water and Sewer Enterprise Fund accounts for all water, sewer and utility billing functions, including administration, operation and maintenance of the water and sewer system and billing and collection activities. There are three (3) Cost Centers within the City's Utility Fund, each with their own budget. Each of the Cost Centers typically includes some or all of the expense categories of Personnel Services, Materials and Supplies, Contractual & Professional, Sundry, Reimbursements, and Capital Outlays. Other Non-Departmental expenses and Transfers are shown outside of these Cost Centers but in the Fund budget.

The City's budget has the following expense categories in each Cost Center:

- **Personnel Services** - includes personnel salaries and benefits
- **Contractual Services** – includes water and wastewater consultant and contractor financial and engineering services
- **Materials and Supplies** – Office supplies, IT software/hardware, tools and chemicals
- **Maintenance** – refers to costs related to maintenance and fuel for vehicles and facilities and sludge removal
- **Utilities** – includes costs for electric and gas services and phone service
- **Operation and Capital Outlays** – includes Upper Trinity Regional Water District Fees for purchased water and fees charged for conveyance and treatment of wastewater and capital outlays. Note: the rate model separates UTRWD costs into a distinct line item
- **Non – Departmental** – primarily transfers the Water and Sewer Funds allocated share of expenses to other internal funds, including the General Fund.

Tables III-1 and III-2 also allocate total budget expenses between the water and wastewater functions based on general ratemaking principles. As the tables show, total operating expenses, and capital outlays in the test year are **\$4,680,570** for the water utility and **\$3,449,877** for the wastewater utility.



TABLE III-1

CITY OF CELINA

WATER Department Expenses, Transfers and Capital Outlays

SCENARIO: 2018 11 14 Scenario 1 -- Status Quo

Department Code	Net Budget	Treatment	Distribution	Admin	Customer Billing
<u>Operating & Maintenance</u>					
1 Personnel Svcs	\$ 860,891	\$ -	\$ 742,609	\$ -	\$ 118,282
2 Contractual	26,149	-	20,000	-	6,149
3 Materials & Supplies	658,400	-	658,400	-	-
4 Operations	164,509	16,000	139,000	-	9,509
5 Utilities	237,864	-	227,499	-	10,365
UTRWD-W Upper Trinity Regional Water District- Water	2,111,200	2,111,200	-	-	-
Total Operating & Maintenance	4,139,331	2,127,200	1,826,858	-	185,273
Transfers	359,415	-	-	359,415	-
Capital Outlays	181,823	-	181,823	-	-
Total WATER Operating Expenses, Transfers and Capital Outlays	\$ 4,680,570	\$ 2,127,200	\$ 2,008,681	\$ 359,415	\$ 185,273

TABLE III-2

CITY OF CELINA

SCENARIO: 2018 11 14 Scenario 1 -- Status Quo

		Net Budget	Treatment	Collection	Admin	Customer Billing
Department Code						
<u>Operating & Maintenance</u>						
1	Personnel Svcs	\$ 491,035	\$ -	\$ 422,734	\$ -	\$ 68,301
2	Contractual	200,051	-	196,500	-	3,551
3	Materials & Supplies	71,000	-	71,000	-	-
4	Operations	215,991	-	210,500	-	5,491
5	Utilities	81,985	-	76,000	-	5,985
UTRWD-W	Upper Trinity Regional Water District- Sewer	2,054,363	2,009,037	45,326	-	-
Total Operating & Maintenance		3,164,382	2,009,037	1,048,360	-	106,985
Transfers		167,585	-	-	167,585	-
Capital Outlays		117,911	-	117,911	-	-
Total WATER Operating Expenses,						
Transfers and Capital Outlays		\$ 3,449,877	\$ 2,009,037	\$ 1,166,271	\$ 167,585	\$ 106,985

Operating Expenses and Capital Outlays – Ten Year Forecast

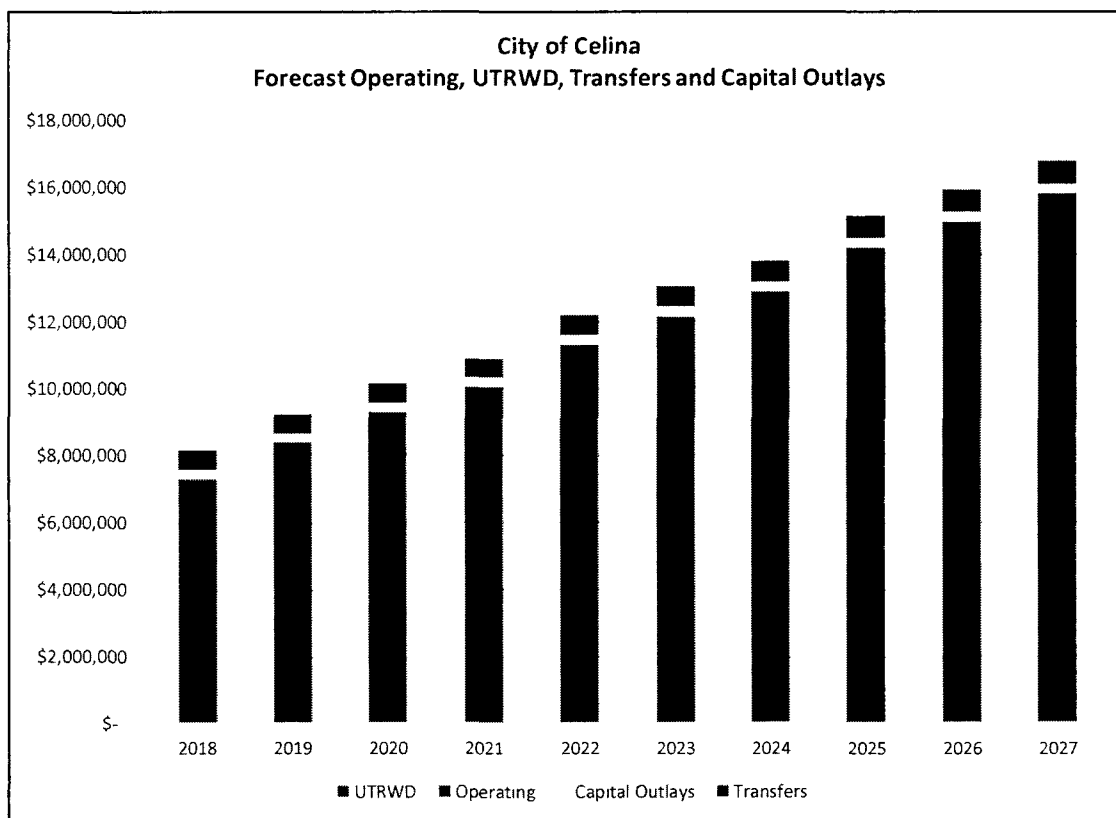
Table III-3 and **Chart III-4** present the water and wastewater utility operating expense and capital outlay forecast for the five-year period FY 2018 – FY 2022. Details behind these calculations can be found in the rate model summarized in **Appendix A**. This forecast is based on the following set of assumptions:

- Most operating costs are expected to increase at an annual rate of 3%, which is approximately equivalent to the rate of inflation.
- Certain expenses will increase at above-inflation rates, to reflect the rapid rate of increase of these costs. These expenses include chemicals, workers' compensation, Medicare and insurance.
- The City of Celina staff provided guidance on inflation factors used in their budgetary forecasts and these same factors were applied within the rate model.
- The City anticipates adding approximately eight employees during the forecast period. Two are utility billing personnel; two are water department personnel; and four are wastewater department personnel.
- Utility Billing Costs are distributed to water, solid waste and wastewater based on FY 2018 revenue budgeted for each department.
- As shown in these charts, UTRWD charges are by far the largest annual expense paid by Celina's water and wastewater utilities. The project team utilized UTRWD's most recent budgeted rate forecast as the basis for the UTRWD cost estimates. **Any changes in UTRWD forecast rate estimates used in determining the City's water and wastewater revenue requirement for this rate study could require significant changes to the rate plan presented in this report.**
- Transfer to General Fund for General and Administrative – This amount is budgeted to be \$352,000 in the test year FY 2018 and is forecast to increase by approximately 3.0% per year.
- Additional Water/Sewer Revenue Transfer for 175,000 in the test year. This too is escalated by 3% per year.

TABLE III-3

CITY OF CELINA					
SCENARIO: 2018 11 14 Scenario 1 -- Status Quo					
	Operating Expenses	UTRWD Payments	Capital Outlays	Transfers & Contingencies	Total Operating/ Capital Outlays
2018	\$ 2,028,131	\$ 2,111,200	\$ 181,823	\$ 359,415	\$ 4,680,570
2019	2,102,146	2,841,778	181,823	370,198	5,495,944
2020	2,267,259	3,246,517	181,823	381,304	6,076,903
2021	2,410,800	3,548,227	181,823	392,743	6,533,593
2022	2,532,400	4,370,998	181,823	404,525	7,489,747
2023	2,626,984	4,716,766	181,823	416,661	7,942,234
2024	2,725,720	5,068,882	181,823	429,160	8,405,585
2025	2,828,826	5,981,962	181,823	442,035	9,434,647
2026	2,936,540	6,366,659	181,823	455,296	9,940,318
2027	3,049,110	6,777,020	181,823	468,955	10,476,908
WASTEWATER Revenue Requirement					
2018	\$ 1,110,019	\$ 2,054,363	\$ 117,911	\$ 167,585	\$ 3,449,877
2019	1,155,702	2,286,905	117,911	172,612	3,733,130
2020	1,217,802	2,552,716	117,911	177,791	4,066,219
2021	1,319,844	2,753,412	117,911	183,124	4,374,292
2022	1,450,513	2,964,499	117,911	188,618	4,721,541
2023	1,625,247	3,182,731	117,911	194,277	5,120,165
2024	1,687,926	3,404,162	117,911	200,105	5,410,104
2025	1,757,817	3,624,223	117,911	206,108	5,706,060
2026	1,826,298	3,837,846	117,911	212,291	5,994,346
2027	1,897,987	4,069,818	117,911	218,660	6,304,376
TOTAL Revenue Requirement					
2018	\$ 3,138,150	\$ 4,165,563	\$ 299,734	\$ 527,000	\$ 8,130,447
2019	3,257,848	5,128,683	299,734	542,810	9,229,074
2020	3,485,061	5,799,233	299,734	559,094	10,143,122
2021	3,730,644	6,301,639	299,734	575,867	10,907,884
2022	3,982,913	7,335,497	299,734	593,143	12,211,287
2023	4,252,231	7,899,497	299,734	610,937	13,062,399
2024	4,413,645	8,473,044	299,734	629,266	13,815,689
2025	4,586,644	9,606,185	299,734	648,144	15,140,706
2026	4,762,838	10,204,505	299,734	667,588	15,934,664
2027	4,947,097	10,846,837	299,734	687,615	16,781,284

CHART III-4



Upper Trinity Regional Water District (UTRWD)

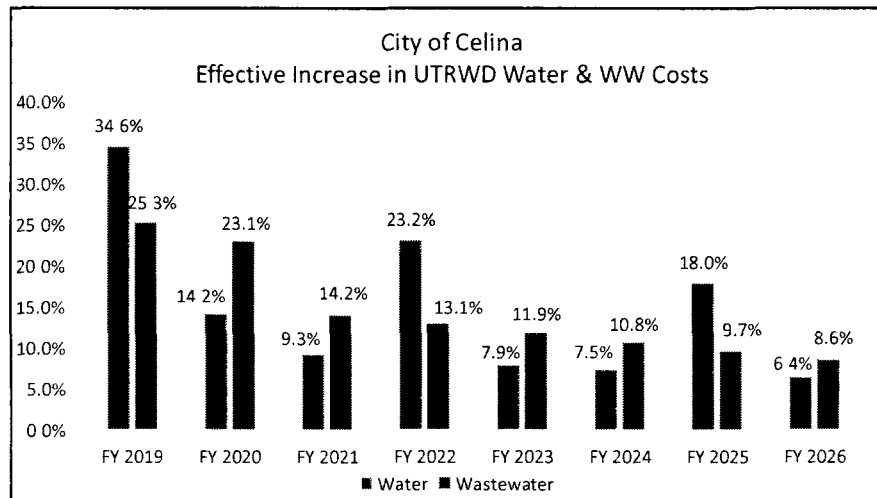
As stated above, a primary component of the City's operating budget is its contractual agreement for treated water service from UTRWD. The project team obtained recent correspondence from UTRWD regarding their preliminary forecasts of the future cost of service. Each year UTRWD updates its forecast of operating and capital expenses, with new rates adopted by the UTRWD Board of Directors in September. UTRWD's preliminary forecast reveals an expected graduated series of rate increases over the next several years as it builds additional infrastructure, develops additional water sources, and expands its operations. These actions will require that the District incur sizable capital outlays and new bond issues which will be factored into the rates charged to customers.

The City also sends a portion of its wastewater flows to UTRWD for treatment. UTRWD maintains wastewater treatment plants and a transmission system utilized in conveying and treating Celina wastewater flows. The respective flows and varying cost projections for each of these wastewater system components were factored into the cost projections for wastewater treatment and transmission in the rate model.

The volume charge for water from the UTRWD in FY 2018 is \$1.23 per thousand gallons. The UTRWD annual demand charge is \$428,200 per MGD. Both charges are forecast to increase by 5% annually in 2019 and 2020, and 3.5% in 2021 – 2027. The project team estimated that wastewater rates will increase annually by 3% for inflation. **Chart III-5** presents the forecast percent increases in UTRWD's water and wastewater charges paid by Celina for

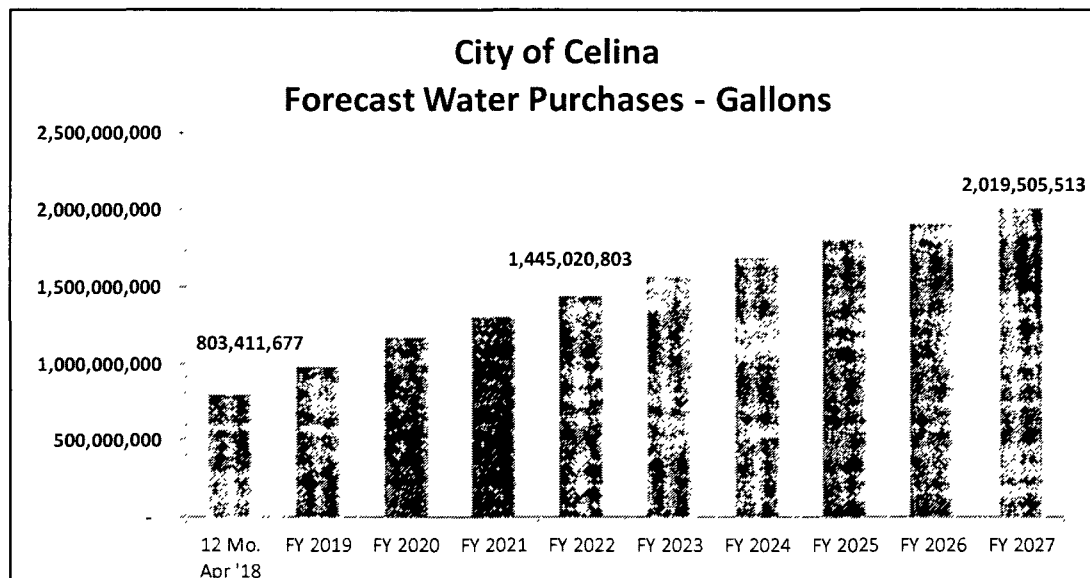
the next decade. Importantly, these increases do not just reflect cost increases by NTMWD; they also incorporate Celina's forecast growth in demand. It should also be noted that Celina's contract water demand is assumed to increase by 1.0 MGD in 2019, 2022, and 2025.

CHART III-5



The forecast water purchases from UTRWD are presented in **Chart III-6**. Based on current account growth estimates, water purchases from UTRWD are expected to increase from approximately 800 million gallons in the year ending April 2018 to over 2 billion in fiscal year ending 2027.

CHART III-6



Capital Improvement Plan

The City has developed a comprehensive capital improvement plan ("CIP") for its water and wastewater system. The plan includes estimates for infrastructure capital improvements for the ten-year (2018 – 2027) rate study financial planning period. This plan includes an aggressive list of projects required to meet utility service needs for communities like Celina with high growth forecasts in number of accounts and water/wastewater demands. The water CIP includes storage, pumps and distribution lines expansion, repairs and upgrades. The wastewater CIP includes wastewater treatment and collection system expansion and upgrades to infrastructure. In developing a ten-year financial forecast, the project team used the totals provided by the City to determine an overall estimate for capital spending needs for the decade. This total CIP for the next ten years is \$164 million, presented in **Table III-7**.

TABLE III-7

CITY OF CELINA	
CAPITAL IMPROVEMENT PLAN	
FUNDING THROUGH NEW BOND ISSUES	
WATER PROJECTS	
30" and 36" Discharge Line from RR to DTPS	\$ 8,000,000
New 6 MG GST at CRPS	7,000,000
30" and 24" Discharge Line from RR to DTPS	5,600,000
CRPS Improvements	5,500,000
Coit Rd 2 MGD Water Tower Construction	5,400,000
24" Line to increase capacity in the Low pressure plane	5,340,000
Downtown Water Improvements	5,250,000
18" and 24" to Morgan Lakes	4,800,000
CRPS & Downtown Pump Station - Phase 1	4,500,000
30" and 24" Parallel Line from DTPS to Sunset	3,500,000
Other Capital Improvement Projects	16,456,000
Total Water Projects	\$ 71,346,000
WASTEWATER PROJECTS	
30", 36", 42", 60" Interceptor from Downtown to WWTP	\$ 20,000,000
Downtown WWTP Upgrade to .95 MGD	13,700,000
WWTP 3 MGD	12,000,000
WWTP 2 MGD	11,000,000
Construct 15" - 30" interceptor Doe Branch to CR 51	6,000,000
Downtown WW Improvements	5,250,000
21" line from Dallas Pkwy to Preston	5,000,000
Construct 10" - 21" interceptor Doe Branch to CR 83	3,200,000
18" line adding capacity for Downtown	3,066,000
Bus 289 Sewer line	3,000,000
Other Capital Improvement Projects	7,821,000
Total Wastewater Projects	\$ 92,937,000
Total Water and Wastewater Projects	\$ 164,283,000

Existing and Forecast Debt Service

Table III-8 presents current and forecast debt service for the water and wastewater utility. At present the water and wastewater utility has ten bond issues outstanding with principal totaling over \$28 million. The outstanding bond principal is for debt that was issued between 2004 and 2017. This debt is a combination of Certificates of Obligation (CO) and General Obligation (GO) bonds.

In 2018 the City intends to issue an additional \$32 million of debt to pay for CIP projects. The City expects to issue another \$129 million in debt over the next decade to finance the balance of the water and wastewater CIP. These assumptions are consistent with City staff's desires and with the City's intention to fund all capital improvements through debt.

TABLE III-8

CITY OF CELINA					
CURRENT AND FORECAST DEBT SERVICE					
SCENARIO: 2018 09 06 Scenario 1 -- Status Quo					
Year			Wastewater		Total
	Current	Forecast	Current	Forecast	
TY 2018	\$ 1,313,274	\$ -	\$ 907,720	\$ -	\$ 2,220,995
FY 2019	1,319,470	1,187,714	912,003	923,778	4,342,966
FY 2020	1,321,713	1,187,714	913,553	923,778	4,346,759
FY 2021	1,319,211	3,167,239	911,824	1,913,540	7,311,814
FY 2022	1,320,325	3,167,239	912,594	1,913,540	7,313,698
FY 2023	1,318,293	4,025,032	911,189	3,365,191	9,619,706
FY 2024	1,323,037	4,025,032	914,468	3,365,191	9,627,729
FY 2025	1,134,909	4,420,937	784,437	5,080,779	11,421,062
FY 2026	1,137,219	4,420,937	786,033	5,080,779	11,424,969
FY 2027	1,132,256	4,552,906	782,603	6,070,541	12,538,306

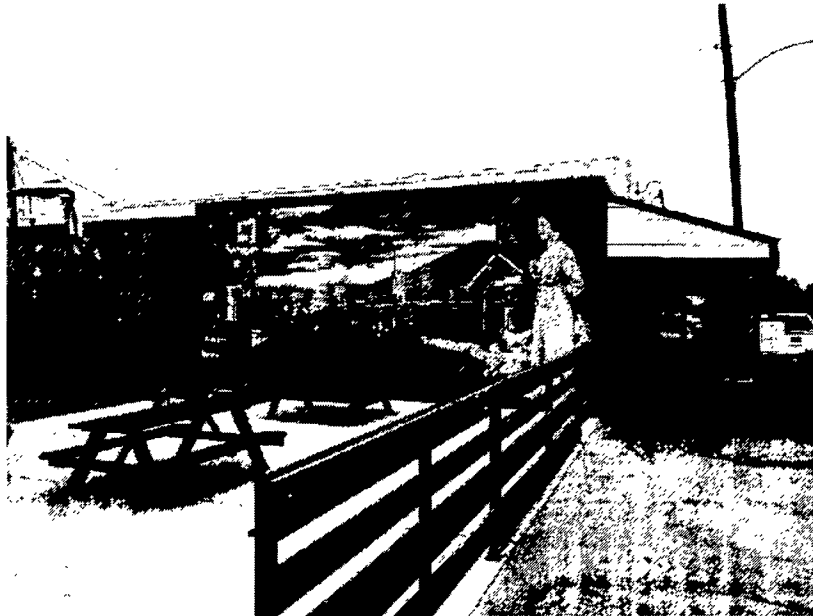
Non-Rate Revenues

Although rate revenues constitute the majority of the revenue received by the City of Celina for water and wastewater service, a certain amount of revenue is accrued from non-rate sources. These revenues include connection fees, miscellaneous charges, permit fees, testing fees, construction water and other fees. These non-rate revenues are subtracted from the overall budget to determine the revenue requirement to be raised from rates. **Note:** a substantial portion of non-rate revenues come from water and wastewater connection fees. These fees are expected to increase as the City's population grows. However, as the annual growth in number of accounts begin to slow there is expected to be a corresponding reduction in annual revenue from connection fees.

Non-Rate Revenues not specifically and solely tied to either water or wastewater were allocated between the two utilities based on a 50/50 water wastewater allocation. Except for connection fees, non-rate revenues are projected to remain stable over the forecast period. Annual non-rate revenue totals are presented in **Table III-9**.

TABLE III-9

CITY OF CELINA							
FORECAST NON-RATE REVENUES							
SCENARIO:							
2018 09 06 Scenario 1 -- Status Quo							
	Connection			Wastewater			Total
	Fees	Other	Total	Fees	Other	Total	
2018	\$1,166,000	\$ 509,083	\$1,675,083	\$ 891,000	\$ 313,217	\$ 1,204,217	\$ 2,879,300
2019	1,166,000	509,083	1,675,083	891,000	313,217	1,204,217	2,879,300
2020	1,284,048	509,083	1,793,131	981,207	313,217	1,294,424	3,087,555
2021	856,918	509,083	1,366,001	654,815	313,217	968,032	2,334,034
2022	857,451	509,083	1,366,534	655,222	313,217	968,439	2,334,973
2023	838,870	509,083	1,347,952	641,023	313,217	954,240	2,302,193
2024	799,662	509,083	1,308,744	611,062	313,217	924,279	2,233,024
2025	739,066	509,083	1,248,149	564,758	313,217	877,975	2,126,124
2026	657,203	509,083	1,166,286	502,202	313,217	815,419	1,981,705
2027	693,941	509,083	1,203,024	530,276	313,217	843,493	2,046,516



Net Revenue Requirement



Table III-10 presents the test year and ten-year forecast for the City's net revenue requirement to be raised from rates for the water and wastewater utility for the test year 2017 and forecast period. The water and wastewater net revenue requirement is expected to increase from **\$7,472,142** in FY 2018 to **\$27,273,073** in FY 2027.

TABLE III-10

CITY OF CELINA							
CURRENT AND FORECAST NET REVENUE REQUIREMENT							
SCENARIO: 2018 11 14 Scenario 1 -- Status Quo							
	Operating Expenses	Capital Outlays	Debt Service	Transfers & Contingencies	Total Cost of Service	Less Non-Rate Revenues	Net Revenue Requirement
2018	\$ 4,139,331	\$ 181,823	\$ 1,313,274	\$ 359,415	\$ 5,993,844	\$ 1,675,083	\$ 4,318,761
2019	4,943,924	181,823	2,507,185	370,198	8,003,129	1,675,083	6,328,046
2020	5,513,776	181,823	2,509,427	381,304	8,586,330	1,793,131	6,793,199
2021	5,959,027	181,823	4,486,450	392,743	11,020,043	1,366,001	9,654,041
2022	6,903,399	181,823	4,487,564	404,525	11,977,310	1,366,534	10,610,777
2023	7,343,750	181,823	5,343,325	416,661	13,285,559	1,347,952	11,937,606
2024	7,794,602	181,823	5,348,069	429,160	13,753,654	1,308,744	12,444,910
2025	8,810,788	181,823	5,555,847	442,035	14,990,493	1,248,149	13,742,344
2026	9,303,199	181,823	5,558,157	455,296	15,498,475	1,166,286	14,332,189
2027	9,826,129	181,823	5,685,162	468,955	16,162,070	1,203,024	14,959,046
WASTEWATER Revenue Requirement							
2018	3,164,382	117,911	907,720	167,585	4,357,598	1,204,217	3,153,381
2019	3,442,607	117,911	1,835,781	172,612	5,568,911	1,204,217	4,364,694
2020	3,770,518	117,911	1,837,331	177,791	5,903,551	1,294,424	4,609,127
2021	4,073,256	117,911	2,825,364	183,124	7,199,656	968,032	6,231,624
2022	4,415,011	117,911	2,826,134	188,618	7,547,675	968,439	6,579,235
2023	4,807,977	117,911	4,276,380	194,277	9,396,546	954,240	8,442,305
2024	5,092,088	117,911	4,279,659	200,105	9,689,764	924,279	8,765,484
2025	5,382,040	117,911	5,865,215	206,108	11,571,275	877,975	10,693,300
2026	5,664,143	117,911	5,866,812	212,291	11,861,158	815,419	11,045,739
2027	5,967,805	117,911	6,853,144	218,660	13,157,520	843,493	12,314,027
TOTAL Revenue Requirement							
2018	7,303,713	299,734	2,220,995	527,000	10,351,442	2,879,300	7,472,142
2019	8,386,530	299,734	4,342,966	542,810	13,572,040	2,879,300	10,692,740
2020	9,284,294	299,734	4,346,759	559,094	14,489,881	3,087,555	11,402,325
2021	10,032,283	299,734	7,311,814	575,867	18,219,698	2,334,034	15,885,665
2022	11,318,410	299,734	7,313,698	593,143	19,524,985	2,334,973	17,190,012
2023	12,151,728	299,734	9,619,706	610,937	22,682,105	2,302,193	20,379,912
2024	12,886,690	299,734	9,627,729	629,266	23,443,418	2,233,024	21,210,394
2025	14,192,829	299,734	11,421,062	648,144	26,561,769	2,126,124	24,435,644
2026	14,967,342	299,734	11,424,969	667,588	27,359,633	1,981,705	25,377,928
2027	15,793,934	299,734	12,538,306	687,615	29,319,589	2,046,516	27,273,073

Water Utility Cost Functionalization

Once the total water and wastewater system costs have been identified, the next step in the rate development process is to isolate the costs associated with each system function. Some of these expenditures are a function of

base water demand; others are based on the peak demands placed on the system. Certain costs are associated with serving customers regardless of the volume of water use or wastewater discharge. The basic steps used to allocate the City's water revenue requirements include the following:

1. Each system's costs (revenue requirements) are categorized by utility function (i.e. treatment, distribution, administrative, customer). This process is known as *functionalization*.
2. Functionalized costs are classified based on the service characteristics or the types of demand served by the utility (base and maximum day). This process is known as *classification*.
3. Costs by service characteristic are allocated to customer classes in proportion to the service demands demonstrated by each class.

This three-step process allows for the allocation of system costs in the same terms as customer classes. The approaches described in this section follow standard industry practices. Water system costs are allocated to the following functions:

Treatment – the process by which raw water is converted to potable water

Distribution – the lines that carry water to individual customers' properties

Administration – miscellaneous overhead and other non-operating costs

Customer Billing – the processes involved in billing and providing other services to customers

The project team allocated operating budget line item expenses individually to system functions based on general guidelines, specific research and input from the City of Celina staff. The results of the allocation process for the test year are summarized in **Table III-11**.

TABLE III-11

CITY OF CELINA		
TEST YEAR WATER COST FUNCTIONALIZATION		
SCENARIO:		
2018 11 14 Scenario 1 -- Status Quo		
	2018	
	Revenue	
Function	Requirement	Percent
Treatment	\$ 1,532,717	35.5%
Distribution	2,365,190	54.8%
Administration	258,970	6.0%
Customer	161,883	3.7%
Total	4,318,761	100.0%

Water Utility Cost Classification

The allocation of functionalized water system costs to service characteristics follows the base-extra capacity cost allocation method recommended by AWWA. Using this method, costs are segregated into the following categories:

Base costs – capital costs and O&M expenses associated with service to customers under average demand conditions. This category does not include any costs attributable to variations in water use resulting from peaks in demand. Base costs tend to vary directly with the total quantity of water used.

Maximum Day/Extra Capacity costs – costs attributable to facilities that are designed to meet peaking requirements. These costs include capital and operating charges for additional plant and system capacity beyond that required for average usage.

Customer Billing costs – costs associated with any aspect of customer service, including billing, accounting, and meter services. These costs are independent of the amount of water used and the size of the customer's meter and are not subject to peaking factors.

According to AWWA Manual M-1, in the base-extra capacity method, care must be taken in separating costs between those devoted to base capacity and those devoted to extra capacity. The peak to average factor is calculated by dividing the volume on the peak day of the year by the average daily volume. Facilities designed to meet maximum-day requirements, such as the treatment and distribution functions, are allocated 67% (2/3) to base, and 33% to extra capacity (Max Day). This means that facilities designed to meet maximum-day requirements, such as the treatment and distribution functions, are allocated 67% to base, and 33% to extra capacity.

All customer service-related costs are allocated 100% to customer billing. Administration costs are generally not directly-assignable to individual classifications. Therefore, it is standard rate-making practice to allocate these costs on an indirect basis to service characteristics.

The system-wide costs by service characteristic are shown in **Table III-12**. As with cost functionalization, these percentages are not expected to change significantly in the forecast period.

TABLE III-12

CITY OF CELINA		
2018 YEAR WATER COST CLASSIFICATION		
SCENARIO:		
2018 11 14 Scenario 1 -- Status Quo		
2018		
Revenue		
Function	Requirement	Percent
Base	\$ 2,782,775	64.43%
Maximum Day	1,391,387	32.22%
Customer	144,599	3.35%
Total	4,318,761	100.0%

Water Utility Cost Allocation

Allocation of costs by service characteristic to customer classes is based on the proportionate use levels of each characteristic by each class. The total water utility costs by customer class for the test year are summarized in **Table III-13** and for the ten-year forecast period in **Table III-14**.

TABLE III-13

CITY OF CELINA		
2018 YEAR WATER COST ALLOCATION		
SCENARIO:		
2018 11 14 Scenario 1 -- Status Quo		
	2018	
	Revenue	
Function	Requirement	Percent
Residential	\$ 2,420,035	56.0%
Residential Outside	790,984	18.3%
Commercial	794,755	18.4%
Commercial Outside	312,987	7.2%
Total	4,318,761	100.0%

TABLE III-14

CITY OF CELINA					
FORECAST WATER COST ALLOCATION					
SCENARIO: 2018 11 14 Scenario 1 -- Status Quo					
Year	Residential	Outside	Commercial	Outside	Total
12 Mo. Apr '18	\$ 2,420,035	\$ 790,984	\$ 794,755	\$ 312,987	\$ 4,318,761
FY 2019	3,545,946	1,158,987	1,164,511	458,602	6,328,046
FY 2020	3,806,596	1,244,180	1,250,111	492,313	6,793,199
FY 2021	5,409,681	1,768,145	1,776,574	699,642	9,654,041
FY 2022	5,945,791	1,943,372	1,952,636	768,978	10,610,777
FY 2023	6,689,286	2,186,382	2,196,804	865,135	11,937,606
FY 2024	6,973,555	2,279,295	2,290,160	901,900	12,444,910
FY 2025	7,700,578	2,516,921	2,528,919	995,927	13,742,344
FY 2026	8,031,100	2,624,952	2,637,465	1,038,674	14,332,189
FY 2027	8,382,361	2,739,761	2,752,821	1,084,103	14,959,046

Wastewater Utility Cost Functionalization and Classification

Wastewater system costs are allocated to the following functions:

Treatment -- Volume – the costs associated with treating wastewater volume discharges

Collection – the lines that transport wastewater from customers' properties to the wastewater treatment plant

Administration – miscellaneous overhead and other non-operating costs

Customer Billing – the processes involved in billing and other services to customers

As was the case for the water system, wastewater utility operating budget line item expenses are allocated individually to functions. The results of the allocation process are presented on **Table III-15**. As with the water utility, these percentages are not forecast to change significantly during the next ten years.

TABLE III-15

CITY OF CELINA		
TEST YEAR WASTEWATER COST FUNCTIONALIZATION		
SCENARIO: 2018 11 14 Scenario 1 -- Status Quo		
Function	2018 Revenue Requirement	Percent
Treatment	\$ 1,453,842	46.1%
Collection	1,481,140	47.0%
Administration	121,273	3.8%
Customer	97,126	3.1%
Total	3,153,381	100.0%

Wastewater Utility Cost Allocation

Allocation of wastewater utility costs by service characteristic to customer classes is performed in the same manner as described for the water utility. The total wastewater utility costs by customer class for the test year are summarized in **Table III-16** and for the ten-year forecast period in **Table III-17**.

TABLE III-16

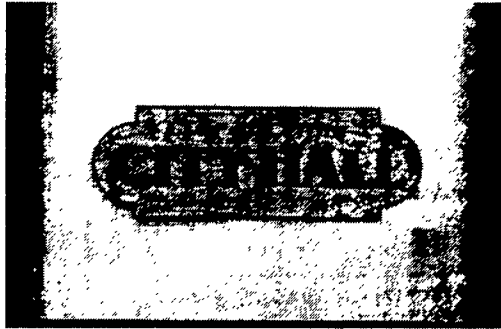
CITY OF CELINA		
TEST YEAR WASTEWATER COST ALLOCATION		
SCENARIO:		
2018 11 14 Scenario 1 -- Status Quo		
Function	2018 Revenue Requirement	Percent
Residential	\$ 2,911,907	92.3%
Residential Outside	765	0.0%
Commercial	240,096	7.6%
Commercial Outside	612	0.0%
Total	3,153,381	100.0%

TABLE III-17

CITY OF CELINA					
FORECAST WASTEWATER COST ALLOCATION					
SCENARIO:					
2018 11 14 Scenario 1 -- Status Quo					
Year	Residential	Residential Outside	Commercial	Commercial Outside	Total
2018	\$ 2,911,907	\$ 765	\$ 240,096	\$ 612	\$ 3,153,381
2019	4,029,748	866	333,388	692	4,364,694
2020	4,255,761	761	351,996	608	4,609,127
2021	5,753,072	926	476,887	739	6,231,624
2022	6,074,276	888	503,362	709	6,579,235
2023	7,793,257	1,047	647,167	835	8,442,305
2024	8,091,874	1,008	671,798	804	8,765,484
2025	9,870,280	1,152	820,949	918	10,693,300
2026	10,195,884	1,127	847,829	898	11,045,739
2027	11,366,129	1,190	945,760	948	12,314,027

SECTION IV

Water and Wastewater Rate Design



Rate design involves determining charges for each class of customers that will generate a desired level of revenue in accordance with AWWA and other industry cost of service rate-making principles. The water and wastewater rates developed in this section are designed to recover the test year and forecast revenue requirements while providing funding for the identified capital improvements and existing debt service. In this section the project team is presenting its recommended alternative rate plans for the City.

During the course of this study, the project team evaluated several alternative rate plans for the City. These rate plans included the following:

Rate Design 1 - Convert residential sewer rates to winter averaging. Currently the residential customer is charged 100% of monthly metered water up to a 14,000 gallon cap.

Rate Design 2 - Changing commercial customer's multi-tier inclining block volume rates to a uniform rate per 1,000 gallons.

Rate Design 3 - Change the rate charged to Light Farms area from residential outside to residential inside rate.

Rate Design 4 – Implementing the same the residential monthly charge for ¾" and 1" customers

After several meetings with staff and Council, it was determined that there would be two alternative rate plans to be presented for consideration. These plans are as follows:

Rate Plan Alternative 1 – Status Quo – implementing a series of phased in rate adjustments over the next three fiscal years. Also includes reducing the wastewater winter average by 1,000 gallons each year for the three-year period.

Rate Plan Alternative 2 – WW Inverted Blocks – same as Rate Plan 1 except for implementing an inverted block rate structure for the residential wastewater customer class.

Both rate plans are considered to be revenue neutral, in that each is forecast to recover an equivalent amount of revenue per year. Further, each of the alternative rate plans developed by the project team includes the following objectives:

- Each plan will ensure that water rates will cover the water cost of service and wastewater rates will cover the wastewater cost of service
- Each plan is intended to allow the City to increase its operating reserves from 40 days to 60 days in three years
- Each rate plan presents a forecast of rates for three years. City staff and the project team discussed the adoption of rate plan, with rates to be automatically implemented on January 1st of each year beginning with January 2019 and ending in January 2021
- Given the continued residential and Commercial growth in the City and potential for unexpected events, the project team recommends that the City not commit itself to a rate plan beyond three years. Further, the project team recommends that the City review these rates annually, to incorporate any unanticipated changes to costs, volumes or growth assumptions that may occur during that time.
- The most significant impact on rates will be the cost of UTRWD treated water and wastewater treatment and debt issued to fund the CIP. **Should UTRWD make material changes to its rate forecasts and/or the City changes its forecast of future debt, the City should undertake an immediate review of its rate plan.**

Rate Plan Alternative 1 – Status Quo

Table IV-1 presents a summary of the first alternative water and wastewater rate plan proposed for Residential and Commercial customers. **Table IV-2** presents the impact on monthly charges of both the water and wastewater rate adjustments for representative Residential and Commercial accounts.

As previously mentioned, this alternative retains the basic rate structure for water and wastewater currently in place for the City. It requires a series of annual percentage rate adjustments in January of each year.

In lieu of changing to a winter averaging method for billing residential sewer accounts (Alternative #1), the staff chose to “ratchet” down the 14,000 gallons monthly cap by 1,000 gallons each of the three-year rate plan. The ultimate goal is to reach 9,000 gallons, but that will require a timeframe that extends beyond the three years of this rate plan. Since the average monthly use by residential customers never exceeded 10,000 gallons over the twelve-month test year used in the rate study, 9,000 gallons is considered an appropriate cap for the City residential customers.

In addition, the staff decided that instead of changing $\frac{3}{4}$ ” meter monthly charge to equal 1” meter monthly charge they will grandfather the $\frac{3}{4}$ ” meter monthly charge. The City is no longer installing $\frac{3}{4}$ ” meters for residential customers. 1” is the smallest meter the City will install.

A full exhibit of the 3-year rate plan is presented in **Appendix A** of this report. Appendix A further forecasts rates for a 10-year period. However, beyond FY 2021 the recommended rates should be considered as trends and general guidelines. Because of the significant volume of and volatility of future growth forecasts, **the project team strongly recommends that the rate plan be reviewed every year to ensure that revenues are consistent with forecasts and are adequate to fund all the costs of providing service.**

TABLE IV-1

CITY OF CELINA		PROPOSED WATER AND WASTEWATER RATE PLAN			
		Scenario: Effective Jan-18	2018 11 14 Scenario 1 -- Status Quo Proposed Jan-19	Proposed Jan-20	Proposed Jan-21
Minimum Charge -- 1st 2,000 Gal					
3/4"		\$ 23.15	\$ 23.84	\$ 24.56	\$ 25.30
1"		38.93	40.10	41.30	42.54
1 1/2"		77.87	80.21	82.61	85.09
2"		124.59	128.33	132.18	136.14
Volume Rate Per 1,000 Gal					
2,001	10,000	5.06	5.21	5.37	5.53
10,001	20,000	7.66	7.89	8.13	8.37
20,001	30,000	9.02	9.29	9.57	9.86
30,001	Above	13.02	13.41	13.81	14.23
Minimum Charge -- 1st 2,000 Gal					
3/4"		\$ 27.81	\$ 28.64	\$ 29.50	\$ 30.39
1"		48.67	50.13	51.63	53.18
1 1/2"		97.34	100.26	103.27	106.37
2"		155.74	160.41	165.22	170.18
3"		233.60	240.61	247.83	255.26
4"		389.34	401.02	413.05	425.44
Volume Rate Per 1,000 Gal					
2,001	10,000	5.06	5.21	5.37	5.53
10,001	20,000	7.66	7.89	8.13	8.37
20,001	30,000	9.02	9.29	9.57	9.86
30,001	Above	13.02	13.41	13.81	14.23
Minimum Charge -- 1st 2,000 Gal					
3/4"		\$ 21.50	\$ 23.44	\$ 25.54	\$ 27.84
1"		38.63	42.11	45.90	50.03
1 1/2"		72.10	78.59	85.66	93.37
2"		123.60	134.72	146.85	160.07
Volume Rate/1,000 Gal (2,001 to 14,000)		5.84	6.37	6.94	7.56
Residential Usage Cap (gallons)		14,000	13,000	12,000	11,000
Minimum Charge -- 1st 2,000 Gal					
3/4"		\$ 25.75	\$ 28.07	\$ 30.59	\$ 33.35
1"		48.29	52.64	57.37	62.54
1 1/2"		90.13	98.24	107.08	116.72
2"		154.50	168.41	183.56	200.08
3"		-	-	-	-
4"		386.25	421.01	458.90	500.20
Volume Rate/1,000 Gal		5.84	6.37	6.94	7.56

TABLE IV-2

CITY OF CELINA		IMPACT OF RATE PLAN ON MONTHLY CHARGES			
		Scenario: Effective Jan-18	2018 11 14 Scenario 1 -- Status Quo Proposed Jan-19	Proposed Jan-20	Proposed Jan-21
Residential Monthly Charges -- 3/4"					
5,000 Water	5,000 WW	\$ 77.35	\$ 82.01	\$ 87.02	\$ 92.42
	Increase -- \$		4.66	5.01	5.39
	Increase -- %		6.0%	6.1%	6.2%
10,000 Water	10,000 WW	131.85	139.90	148.56	157.88
	Increase -- \$		8.05	8.66	9.32
	Increase -- %		6.1%	6.2%	6.3%
20,000 Water	14,000 WW	231.81	244.26	257.58	271.83
	Increase -- \$		12.45	13.32	14.26
	Increase -- %		5.4%	5.5%	5.5%
Commercial Monthly Charges -- 1 1/2"					
30,000 Water	30,000 WW	\$ 558.27	\$ 590.24	\$ 624.53	\$ 661.35
	Increase -- \$		31.97	34.30	36.82
			5.7%	5.8%	5.9%
60,000 Water	60,000 WW	1,124.07	1,183.52	1,247.08	1,315.06
	Increase -- \$		59.45	63.55	67.98
	Increase -- %		5.3%	5.4%	5.5%

The projected rate revenues developed in this section, are forecast to be sufficient to fund all operating and current scheduled capital obligations through FY 2021 if **all annual adjustments are implemented beginning with January 2019**. Rate revenues should be sufficient to fund the water and wastewater full cost of service including all existing and future debt service over the forecast period. **Chart IV-3** presents the rate model's dashboard charts projecting revenues, net revenues, debt service and debt service coverage¹ under the proposed rate plan. This highlights the importance of the implementation of each annual rate adjustment and future review of growth, operating and capital assumptions and actual financial results.

Table IV-4 presents forecast revenues for the test year and each of the next three years if the three-year rate plan is adopted, as well as a forecast of future revenues for a ten-year period.

¹ Note. The water and wastewater outstanding debt are all CO and GO bonds and, therefore, have no debt service coverage requirements. This chart is presented as one of a several indicators used to demonstrate the utility fund's financial health with implementation of the recommended rate plan

CHART IV-3

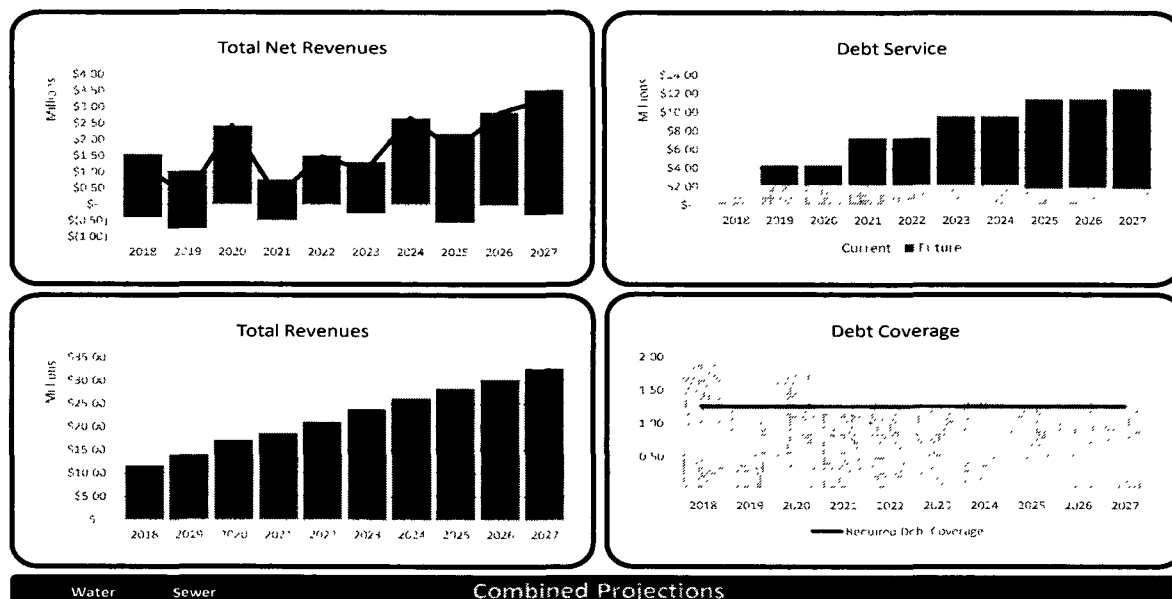


TABLE IV-4

CITY OF CELINA				
Forecast Water and Wastewater Revenues				
Scenario: 2018 11 14 Scenario 1 -- Status Quo				
Fiscal Year	Water Revenues	Wastewater Revenues	Non-Rate Revenues	Total Revenues
2018	\$ 5,872,806	\$ 2,769,065	\$ 2,879,300	\$ 11,521,171
2019	7,395,658	3,612,251	2,879,300	13,887,210
2020	9,150,457	4,729,338	3,087,555	16,967,351
2021	10,478,665	5,731,083	2,334,034	18,543,782
2022	11,879,016	6,875,224	2,334,973	21,089,213
2023	13,329,715	8,164,048	2,302,193	23,795,955
2024	14,707,339	9,232,957	2,233,024	26,173,319
2025	16,007,796	10,147,704	2,126,124	28,281,624
2026	17,240,695	11,036,265	1,981,705	30,258,664
2027	18,568,550	12,002,639	2,046,516	32,617,705

Rate Plan Alternative 2 – Wastewater Inverted Block

Table IV-5 presents a summary of the second alternative water and wastewater rate plan proposed for Residential and Commercial customers. **Table IV-6** presents the impact on monthly charges of both the water and wastewater rate adjustments for representative Residential and Commercial accounts.

As previously mentioned, this alternative retains the basic rate structure for water and wastewater currently in place for the City. It requires a series of annual percentage rate adjustments in January of each year. However, while water rates are unchanged from Alternative #1, wastewater rates are converted into an inverted block for residential wastewater customers.

This alternative also includes the ratcheting down of the wastewater usage cap, as well as the grandfathering of ¾" water meters.

A full exhibit of the 3-year rate plan is presented in **Appendix B** of this report. Appendix B further forecasts rates for a 10-year period. However, beyond FY 2021 the recommended rates should be considered as trends and general guidelines. Because of the significant volume of and volatility of future growth forecasts, **the project team strongly recommends that the rate plan be reviewed every year to ensure that revenues are consistent with forecasts and are adequate to fund all the costs of providing service.**



TABLE IV-5

CITY OF CELINA		PROPOSED WATER AND WASTEWATER RATE PLAN			
		Scenario: Effective Jan-18	2018 11 14 Scenario 2 -- WW Inverted Block Proposed Jan-19	Proposed Jan-20	Proposed Jan-21
Minimum Charge -- 1st 2,000 Gal					
3/4"		\$ 23.15	\$ 23.84	\$ 24.56	\$ 25.30
1"		38.93	40.10	41.30	42.54
1 1/2"		77.87	80.21	82.61	85.09
2"		124.59	128.33	132.18	136.14
Volume Rate Per 1,000 Gal					
2,001	10,000	5.06	5.21	5.37	5.53
10,001	20,000	7.66	7.89	8.13	8.37
20,001	30,000	9.02	9.29	9.57	9.86
30,001	Above	13.02	13.41	13.81	14.23
Minimum Charge -- 1st 2,000 Gal					
3/4"		\$ 27.81	\$ 28.64	\$ 29.50	\$ 30.39
1"		48.67	50.13	51.63	53.18
1 1/2"		97.34	100.26	103.27	106.37
2"		155.74	160.41	165.22	170.18
3"		233.60	240.61	247.83	255.26
4"		389.34	401.02	413.05	425.44
Volume Rate Per 1,000 Gal					
2,001	10,000	5.06	5.21	5.37	5.53
10,001	20,000	7.66	7.89	8.13	8.37
20,001	30,000	9.02	9.29	9.57	9.86
30,001	Above	13.02	13.41	13.81	14.23
Minimum Charge -- 1st 2,000 Gal					
3/4"		\$ 21.50	\$ 23.44	\$ 25.54	\$ 27.84
1"		38.63	42.11	45.90	50.03
1 1/2"		72.10	78.59	85.66	93.37
2"		123.60	134.72	146.85	160.07
Volume Rate/1,000 Gal (2,001 to 5,000)		5.84	5.84	6.37	6.94
Volume Rate/1,000 Gal (5,001 to 14,000)		5.84	7.23	7.88	8.59
Residential Usage Cap (gallons)		14,000	13,000	12,000	11,000
Minimum Charge -- 1st 2,000 Gal					
3/4"		\$ 25.75	\$ 28.07	\$ 30.59	\$ 33.35
1"		48.29	52.64	57.37	62.54
1 1/2"		90.13	98.24	107.08	116.72
2"		154.50	168.41	183.56	200.08
3"		-	-	-	-
4"		386.25	421.01	458.90	500.20
Volume Rate/1,000 Gal		5.84	6.37	6.94	7.56

TABLE IV-6

CITY OF CELINA		IMPACT OF RATE PLAN ON MONTHLY CHARGES			
		Scenario: Effective Jan-18	2018 11 14 Scenario 2 -- WW Inverted Block Proposed Jan-19	Proposed Jan-20	Proposed Jan-21
Residential Monthly Charges -- 3/4"					
5,000 Water	5,000 WW	\$ 77.35	\$ 80.43	\$ 85.31	\$ 90.54
	Increase -- \$		3.08	4.87	5.24
	Increase -- %		4.0%	6.1%	6.1%
10,000 Water	10,000 WW	131.85	142.64	151.55	161.14
	Increase -- \$		10.79	8.91	9.59
	Increase -- %		8.2%	6.2%	6.3%
20,000 Water	14,000 WW	231.81	250.46	264.34	279.20
	Increase -- \$		18.65	13.88	14.86
	Increase -- %		8.0%	5.5%	5.6%
Commercial Monthly Charges -- 1 1/2"					
30,000 Water	30,000 WW	\$ 558.27	\$ 590.24	\$ 624.53	\$ 661.35
	Increase -- \$		31.97	34.30	36.82
			5.7%	5.8%	5.9%
60,000 Water	60,000 WW	1,124.07	1,183.52	1,247.08	1,315.06
	Increase -- \$		59.45	63.55	67.98
	Increase -- %		5.3%	5.4%	5.5%

The projected rate revenues developed in this section, are forecast to be sufficient to fund all operating and current scheduled capital obligations through FY 2021 **if all annual adjustments are implemented beginning with January 2019**. Rate revenues should be sufficient to fund the water and wastewater full cost of service including all existing and future debt service over the forecast period. **Chart IV-7** presents the rate model's dashboard charts projecting revenues, net revenues, debt service and debt service coverage² under the proposed rate plan. This highlights the importance of the implementation of each annual rate adjustment and future review of growth, operating and capital assumptions and actual financial results.

Table IV-8 presents forecast revenues for the test year and each of the next three years if the three-year rate plan is adopted, as well as a forecast of future revenues for a ten-year period.

² Note. The water and wastewater outstanding debt are all CO and GO bonds and, therefore, have no debt service coverage requirements. This chart is presented as one of a several indicators used to demonstrate the utility fund's financial health with implementation of the recommended rate plan

CHART IV-7

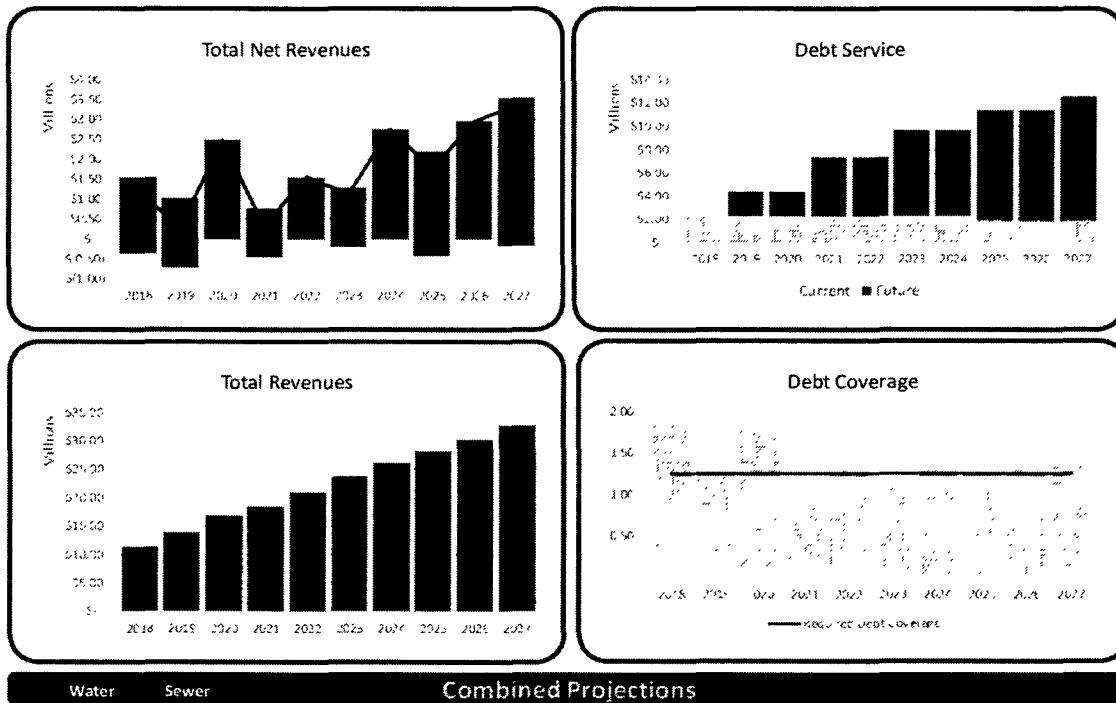


TABLE IV-8

CITY OF CELINA

Forecast Water and Wastewater Revenues

Scenario: 2018 11 14 Scenario 2 -- WW Inverted Block

Fiscal Year	Water Revenues	Wastewater Revenues	Non-Rate Revenues	Total Revenues
2018	\$ 5,872,806	\$ 2,769,065	\$ 2,879,300	\$ 11,521,171
2019	7,395,658	3,638,207	2,879,300	13,913,166
2020	9,150,457	4,778,911	3,087,555	17,016,923
2021	10,478,665	5,791,157	2,334,034	18,603,856
2022	11,879,016	6,947,292	2,334,973	21,161,280
2023	13,329,715	8,249,625	2,302,193	23,881,533
2024	14,707,339	9,329,739	2,233,024	26,270,102
2025	16,007,796	10,254,075	2,126,124	28,387,996
2026	17,240,695	11,151,951	1,981,705	30,374,351
2027	18,568,550	12,128,456	2,046,516	32,743,522

Notes on Rate Recommendations

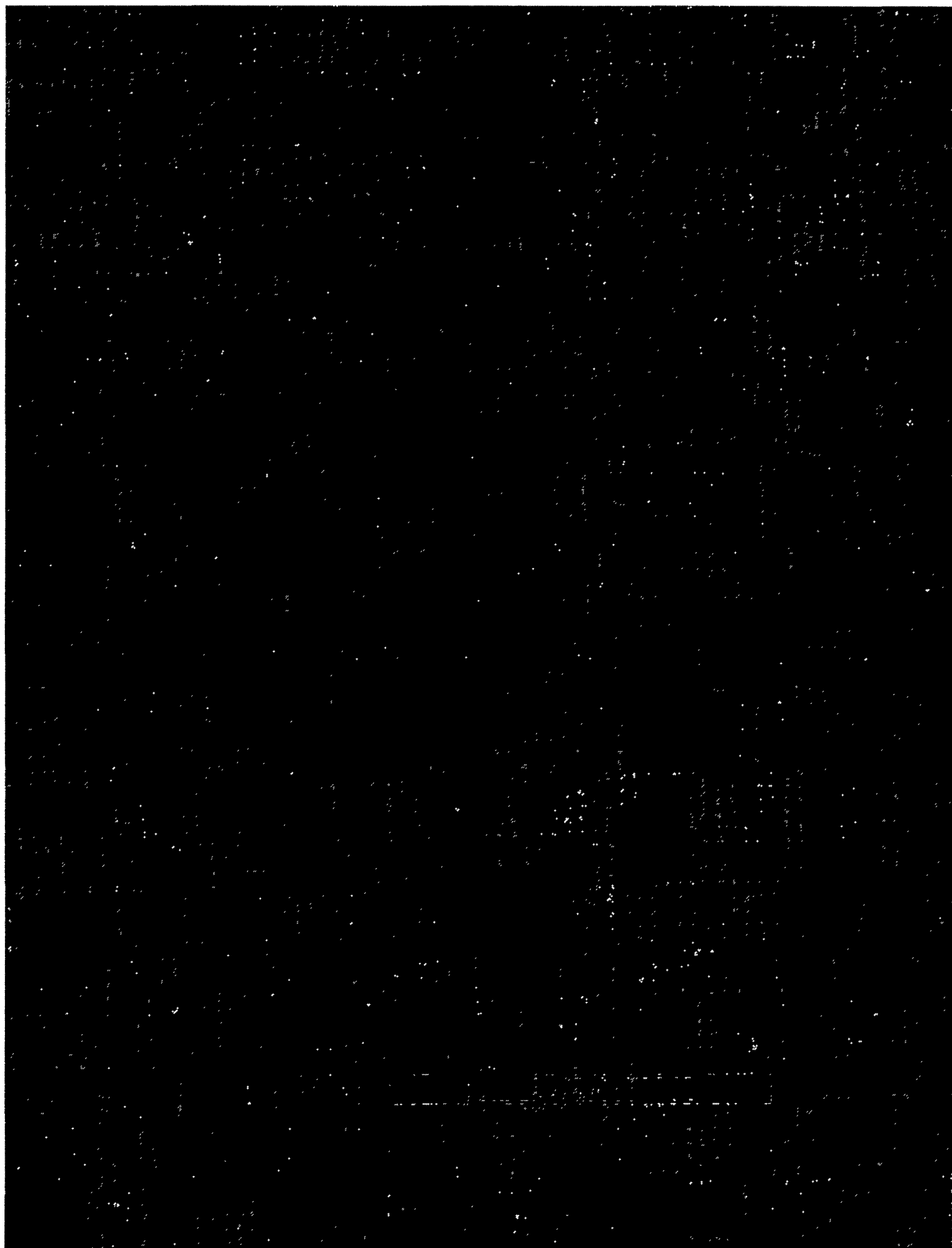
The forecast and recommendations presented in this study represent a combination of the best information available from the City of Celina and the project team's expertise. However, this forecast relies in part on assumptions about future events and events beyond the control of the project team (such as account growth rates within the City). The forecast and recommendations contained in this study may be subject to revision if any of the following events occurs:

- Actual growth in accounts and consumed volumes is less than (or significantly greater than) forecast.
- Capital improvement plan funding costs increase significantly due to the rising cost of materials or other factors.
- An unforeseen event impacts the City, such as an extended recession, natural catastrophe or terrorist attack.
- Significant and long-lasting changes in weather patterns.
- Increases, decreases or changes in interest rates, coverage requirements, or reserve requirements for long-term debt.
- The City of Celina budget levels or priorities change significantly from those forecast in this study.

It should be noted that none of these events are foreseen by the project team or the City at this time.

If any of these events occur, the City may be compelled to consider further adjustments to its water and wastewater rates.







Ten Year Rate Analysis and Pro Forma Fiscal Years 2018 - 2026

Utility System

Water
Sewer
Electricity

Dashboard

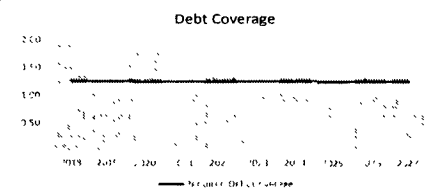
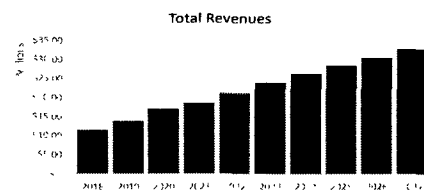
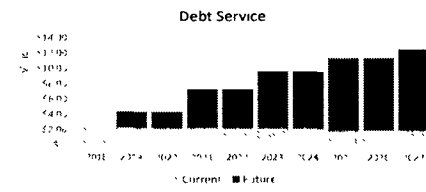
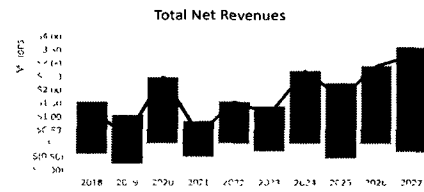
Production
Efficiency
Sustainability

Customer Class

All classes

Years

2018
2019
2020
2021
2022
2023
2024
2025
2026
2027



Water Sewer Combined Projections

Future Debt Term

Year	Alternative	Proposed
2018	\$	18,000,000
2019	\$	-
2020	\$	30,000,000
2021	\$	-
2022	\$	13,000,000
2023	\$	-
2024	\$	6,000,000
2025	\$	-
2026	\$	2,000,000
2027	\$	-

Year	Alternative	Proposed
2018	\$	14,000,000
2019	\$	-
2020	\$	15,000,000
2021	\$	-
2022	\$	22,000,000
2023	\$	-
2024	\$	26,000,000
2025	\$	-
2026	\$	15,000,000
2027	\$	-

Water Rate Adjustments

Meter Charge

Volume Charge

Sewer Rate Adjustments

Base Charge

Volume Charge

Residential

Non-Residential

Year	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Meter Charge	42	41	102	87	111	114	153	159	193	222
Volume Charge										
Base Charge										
Volume Charge - Residential										
Volume Charge - Non-Residential										

CITY OF CELINA WATER/WASTEWATER COST OF SERVICE MODEL				
	Current	Effective Jan-19	Effective Jan-20	Effective Jan-21

City Rate Plan -- Three Year Summary**Scen: 2019 03 05 Scenario 1 -- Status Quo**1 **Monthly Minimum Charge****City of Celina Water Rates****City of Celina Wastewater Rates****Monthly Minimum Charge**

3/4"	\$	23.15	\$	23.84	\$	24.56	\$	25.30
1"		38.93		40.10		41.30		42.54
1 1/2"		77.87		80.21		82.61		85.09
2"		124.59		128.33		132.18		136.14

Volume Rate/1,000 Gal

2,001	10,000	\$	5.06	\$	5.21	\$	5.37	\$	5.53
10,001	20,000		7.66		7.89		8.13		8.37
20,001	30,000		9.02		9.29		9.57		9.86
30,001	Above		13.02		13.41		13.81		14.23

City of Celina Wastewater Rates**Monthly Minimum Charge**

3/4"	\$	34.72	\$	35.77	\$	36.84	\$	37.95
1"		58.40		60.15		61.95		63.81
1 1/2"		116.81		120.31		123.92		127.64
2"		186.89		192.50		198.27		204.21

Volume Rate/1,000 Gal

2,001	10,000	\$	7.59	\$	7.82	\$	8.05	\$	8.29
10,001	20,000		11.49		11.84		12.19		12.56
20,001	30,000		13.53		13.94		14.35		14.78
30,001	Above		19.53		20.12		20.72		21.34

CITY OF CELINA				
WATER/WASTEWATER COST OF SERVICE MODEL				
	Current	Effective Jan-19	Effective Jan-20	Effective Jan-21

City Rate Plan -- Three Year Summary
Scen: 2019 03 05 Scenario 1 -- Status Quo

W1 Commercial Inside

Monthly Minimum Charge

3/4"	\$	27.81	\$	28.64	\$	29.50	\$	30.39
1"		48.67		50.13		51.63		53.18
1 1/2"		97.34		100.26		103.27		106.37
2"		155.74		160.41		165.22		170.18
3"		233.60		240.61		247.83		255.26
4"		389.34		401.02		413.05		425.44

Volume Rate/1,000 Gal

2,001	10,000	\$	5.06	\$	5.21	\$	5.37	\$	5.53
10,001	20,000		7.66		7.89		8.13		8.37
20,001	30,000		9.02		9.29		9.57		9.86
30,001	Above		13.02		13.41		13.81		14.23

W4 Commercial Outside

Monthly Minimum Charge

3/4"	\$	41.72	\$	42.97	\$	44.26	\$	45.58
1"		73.01		75.20		77.45		79.77
1 1/2"		146.01		150.39		154.90		159.55
2"		233.61		240.62		247.84		255.27
3"		350.40		360.91		371.74		382.89
4"		584.01		601.53		619.58		638.16

Volume Rate/1,000 Gal

2,001	10,000	\$	7.59	\$	7.82	\$	8.05	\$	8.29
10,001	20,000		11.49		11.84		12.19		12.56
20,001	30,000		13.53		13.94		14.35		14.78
30,001	Above		19.53		20.12		20.72		21.34

CITY OF CELINA WATER/WASTEWATER COST OF SERVICE MODEL				
	Current	Effective Jan-19	Effective Jan-20	Effective Jan-21

City Rate Plan -- Three Year Summary**Scen: 2019 03 05 Scenario 1 -- Status Quo**

2

Monthly Minimum Charge

3/4"	\$	21.50	\$	23.44	\$	25.54	\$	27.84
1"		38.63		42.11		45.90		50.03
1 1/2"		72.10		78.59		85.66		93.37
2"		123.60		134.72		146.85		160.07

Volume Rate/1,000 Gal

2,001	Maximum	5.84	6.37	6.94	7.56
	Maximum Gallons	14,000	13,000	12,000	11,000

Monthly Minimum Charge

3/4"		32.25	35.15	38.32	41.76
1"		57.95	63.16	68.84	75.04
1 1/2"		108.15	117.88	128.49	140.06
2"		185.40	202.09	220.27	240.10

Volume Rate/1,000 Gal

2,001	Maximum	8.76	9.55	10.41	11.34
	Maximum Gallons	14,000	13,000	12,000	11,000

CITY OF CELINA				
WATER/WASTEWATER COST OF SERVICE MODEL				
	Current	Effective Jan-19	Effective Jan-20	Effective Jan-21

City Rate Plan -- Three Year Summary
Scen: 2019 03 05 Scenario 1 -- Status Quo

Monthly Minimum Charge

3/4"	25.75	28.07	30.59	33.35
1"	48.29	52.64	57.37	62.54
1 1/2"	90.13	98.24	107.08	116.72
2"	154.50	168.41	183.56	200.08
4"	386.25	421.01	458.90	500.20

Volume Rate/1,000 Gal

2,001	Above	5.84	6.37	6.94	7.56
-------	-------	------	------	------	------

Monthly Minimum Charge

3/4"	38.63	42.10	45.89	50.02
1"	72.44	78.95	86.06	93.81
1 1/2"	135.20	147.36	160.63	175.08
2"	231.75	252.61	275.34	300.12
4"	579.38	631.52	688.36	750.31

Volume Rate/1,000 Gal

2,001	Above	8.76	9.55	10.41	11.34
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CITY OF CELINA WATER/WASTEWATER COST OF SERVICE MODEL				
	Current	Effective Jan-19	Effective Jan-20	Effective Jan-21

City Rate Plan -- Three Year Summary**Scen: 2019 03 05 Scenario 1 -- Status Quo****3 Residential Property Charge -- WATER****5,000 Gallons -- 3/4" Meter**

Total	\$ 38.33	\$ 39.48	\$ 40.66	\$ 41.88
Dollar Inc	1.20	1.15	1.18	1.22
Percent Inc	3.2%	3.0%	3.0%	3.0%

10,000 Gallons -- 3/4" Meter

Total	63.63	65.54	67.51	69.53
Dollar Inc	1.70	1.91	1.97	2.03
Percent Inc	2.7%	3.0%	3.0%	3.0%

20,000 Gallons -- 3/4" Meter

Total	140.23	144.44	148.77	153.23
Dollar Inc	3.90	4.21	4.33	4.46
Percent Inc	2.9%	3.0%	3.0%	3.0%

30,000 Gallons -- 3/4" Meter

Total	230.43	237.34	244.46	251.80
Dollar Inc	7.30	6.91	7.12	7.33
Percent Inc	3.3%	3.0%	3.0%	3.0%

CITY OF CELINA WATER/WASTEWATER COST OF SERVICE MODEL				
	Current	Effective Jan-19	Effective Jan-20	Effective Jan-21

City Rate Plan -- Three Year Summary

Scen: 2019 03 05 Scenario 1 -- Status Quo

3 Residential Outside Monthly Charge - Water

5,000 3/4" Meter				
Total	\$ 57.49	\$ 59.22	\$ 61.00	\$ 62.83
Dollar Inc	1.79	1.73	1.78	1.83
Percent Inc	3.2%	3.0%	3.0%	3.0%
10,000 3/4" Meter				
Total	95.44	98.31	101.26	104.30
Dollar Inc	2.54	2.87	2.95	3.04
Percent Inc	2.7%	3.0%	3.0%	3.0%
20,000 3/4" Meter				
Total	210.34	216.71	223.16	229.85
Dollar Inc	5.84	6.37	6.45	6.70
Percent Inc	2.9%	3.0%	3.0%	3.0%

4 Commercial Monthly Charge - Water

30,000 Gallons -- 1 1/2" Meter				
Total	304.62	313.76	323.17	332.87
Dollar Inc	6.40	9.14	9.41	9.70
Percent Inc	2.1%	3.0%	3.0%	3.0%
60,000 Gallons -- 1 1/2" Meter				
Total	695.22	716.08	737.56	759.69
Dollar Inc	25.00	20.86	21.48	22.13
Percent Inc	3.7%	3.0%	3.0%	3.0%

CITY OF CELINA WATER/WASTEWATER COST OF SERVICE MODEL				
	Current	Effective Jan-19	Effective Jan-20	Effective Jan-21

City Rate Plan -- Three Year Summary
Scen: 2019 03 05 Scenario 1 -- Status Quo

5

5,000 Gallons -- 3/4" Meter

Total	\$ 39.02	\$ 42.53	\$ 46.36	\$ 50.53
Dollar Inc	1.23	3.51	3.83	4.17
Percent Inc	3.3%	9.0%	9.0%	9.0%

10,000 Gallons -- 3/4" Meter

Total	68.22	74.36	81.05	88.35
Dollar Inc	1.78	6.14	6.69	7.29
Percent Inc	2.7%	9.0%	9.0%	9.0%

15,000 Gallons -- 3/4" Meter

Total	91.58	99.82	108.81	118.60
Dollar Inc	2.22	8.24	8.98	9.79
Percent Inc	2.5%	9.0%	9.0%	9.0%

20,000 Gallons -- 3/4" Meter

Total	91.58	99.82	108.81	118.60
Dollar Inc	2.22	8.24	8.98	9.79
Percent Inc	2.5%	9.0%	9.0%	9.0%

6

30,000 Gallons -- 1 1/2" Meter

Total	\$ 253.65	\$ 276.48	\$ 301.36	\$ 328.48
Dollar Inc	3.08	22.83	24.88	27.12
Percent Inc	1.2%	9.0%	9.0%	9.0%

60,000 Gallons -- 1 1/2" Meter

Total	516.45	562.93	613.59	668.82
Dollar Inc	7.88	46.48	50.66	55.22
Percent Inc	1.5%	9.0%	9.0%	9.0%

CITY OF CELINA WATER/WASTEWATER COST OF SERVICE MODEL				
	Current	Effective Jan-19	Effective Jan-20	Effective Jan-21

City Rate Plan -- Three Year Summary

Scen: 2019 03 05 Scenario 1 -- Status Quo

5 Residential Monthly Charges -- WATER AND WASTEWATER**5,000 Gallons Water, 5,000 Gallons WW -- 3/4" Meter**

Total	\$ 77.35	\$ 82.01	\$ 87.02	\$ 92.42
Dollar Inc	2.43	4.66	5.01	5.39
Percent Inc	3.2%	6.0%	6.1%	6.2%

10,000 Gallons Water, 10,000 Gallons WW -- 3/4" Meter

Total	131.85	139.90	148.56	157.88
Dollar Inc	32.13	8.05	8.66	9.32
Percent Inc	32.2%	6.1%	6.2%	6.3%

20,000 Gallons Water, 14,000 Gallons WW -- 3/4" Meter

Total	231.81	244.26	257.58	271.83
Dollar Inc	57.69	12.45	13.32	14.26
Percent Inc	33.1%	5.4%	5.5%	5.5%

30,000 Gallons Water, 30,000 Gallons WW -- 3/4" Meter

Total	322.01	337.17	353.27	370.40
Dollar Inc	61.09	15.16	16.10	17.13
Percent Inc	23.4%	4.7%	4.8%	4.8%

6 Commercial Monthly Charges -- WATER AND WASTEWATER**30,000 Gallons Water, 30,000 Gallons WW -- 1 1/2" Meter**

Total	\$ 558.27	\$ 590.24	\$ 624.53	\$ 661.35
Dollar Inc	9.48	31.97	34.30	36.82
Percent Inc	1.7%	5.7%	5.8%	5.9%

60,000 Gallons Water, 60,000 Gallons WW -- 1 1/2" Meter

Total	1,211.67	1,279.01	1,351.15	1,428.50
Dollar Inc	32.88	67.34	72.15	77.35
Percent Inc	2.8%	5.6%	5.6%	5.7%

CITY OF CELINA
WATER/WASTEWATER COST OF SERVICE MODEL

Current	Effective Jan-18	Effective Jan-19	Effective Jan-20	Effective Jan-21	Effective Jan-22	Effective Jan-23	Effective Jan-24	Effective Jan-25	Effective Jan-26	Effective Jan-27
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City Rate Plan -- 10 Year Summary

Scen: 2019 03 05 Scenario 1 -- Status Quo

1

Monthly Minimum Charge

3/4"	\$	22.25	\$	23.15	\$	23.84	\$	24.56	\$	25.30	\$	26.06	\$	26.84	\$	27.37	\$	27.92	\$	28.48	\$	29.05
1"		38.93		38.93		40.10		41.30		42.54		43.82		45.13		46.03		46.95		47.89		48.85
1 1/2"		77.87		77.87		80.21		82.61		85.09		87.64		90.27		92.08		93.92		95.80		97.71
2"		124.59		124.59		128.33		132.18		136.14		140.23		144.43		147.32		150.27		153.27		156.34
3"		-		-		-		-		-		-		-		-		-		-		-
4"		-		-		-		-		-		-		-		-		-		-		-
6"		-		-		-		-		-		-		-		-		-		-		-
8"		-		-		-		-		-		-		-		-		-		-		-

Volume Rate/1,000 Gal

2,001	10,000	4.96	5.06	5.21	5.37	5.53	5.70	5.87	5.98	6.10	6.22	6.35
10,001	20,000	7.44	7.66	7.89	8.13	8.37	8.62	8.88	9.06	9.24	9.42	9.61
20,001	30,000	8.68	9.02	9.29	9.57	9.86	10.15	10.46	10.67	10.88	11.10	11.32
30,001	Above	12.40	13.02	13.41	13.81	14.23	14.65	15.09	15.40	15.70	16.02	16.34
-	-	-	-	-	-	-	-	-	-	-	-	-

Monthly Minimum Charge

3/4"	\$	33.38	\$	34.72	\$	35.77	\$	36.84	\$	37.95	\$	39.08	\$	40.26	\$	41.06	\$	41.88	\$	42.72	\$	43.57
1"		58.40		58.40		60.15		61.95		63.81		65.72		67.70		69.05		70.43		71.84		73.28
1 1/2"		116.81		116.81		120.31		123.92		127.64		131.47		135.41		138.12		140.88		143.70		146.57
2"		186.89		186.89		192.50		198.27		204.21		210.34		216.65		220.98		225.40		229.91		234.51
3"		-		-		-		-		-		-		-		-		-		-		-
4"		-		-		-		-		-		-		-		-		-		-		-
6"		-		-		-		-		-		-		-		-		-		-		-
8"		-		-		-		-		-		-		-		-		-		-		-

Volume Rate/1,000 Gal

2,001	10,000	7.44	7.59	7.82	8.05	8.29	8.54	8.80	8.97	9.15	9.34	9.52
10,001	20,000	11.16	11.49	11.84	12.19	12.56	12.93	13.32	13.59	13.86	14.14	14.42
20,001	30,000	13.02	13.53	13.94	14.35	14.78	15.23	15.68	16.00	16.32	16.65	16.98
30,001	Above	18.60	19.53	20.12	20.72	21.34	21.98	22.64	23.09	23.56	24.03	24.51
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CITY OF CELINA WATER/WASTEWATER COST OF SERVICE MODEL
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Current	Effective Jan-18	Effective Jan-19	Effective Jan-20	Effective Jan-21	Effective Jan-22	Effective Jan-23	Effective Jan-24	Effective Jan-25	Effective Jan-26	Effective Jan-27
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City Rate Plan -- 10 Year Summary
 Scen: 2019 03 05 Scenario 1 -- Status Quo

W1 Commercial

Monthly Minimum Charge

3/4"	\$	27.81	\$	27.81	\$	28.64	\$	29.50	\$	30.39	\$	31.30	\$	32.24	\$	32.88	\$	33.54	\$	34.21	\$	34.90
1"		48.67		48.67		50.13		51.63		53.18		54.78		56.42		57.55		58.70		59.88		61.07
1 1/2"		97.34		97.34		100.26		103.27		106.37		109.56		112.84		115.10		117.40		119.75		122.15
2"		155.74		155.74		160.41		165.22		170.18		175.29		180.55		184.16		187.84		191.60		195.43
3"		233.60		233.60		240.61		247.83		255.26		262.92		270.81		276.22		281.75		287.38		293.13
4"		389.34		389.34		401.02		413.05		425.44		438.21		451.35		460.38		469.59		478.98		488.56
6"		-		-		-		-		-		-		-		-		-		-		-
8"		-		-		-		-		-		-		-		-		-		-		-

Volume Rate/1,000 Gal

2,001	10,000	4.96	5.06	5.21	5.37	5.53	5.70	5.87	5.98	6.10	6.22	6.35
10,001	20,000	7.44	7.66	7.89	8.13	8.37	8.62	8.88	9.06	9.24	9.42	9.61
20,001	30,000	8.68	9.02	9.29	9.57	9.86	10.15	10.46	10.67	10.88	11.10	11.32
30,001	Above	12.40	13.02	13.41	13.81	14.23	14.65	15.09	15.40	15.70	16.02	16.34
-	-	-	-	-	-	-	-	-	-	-	-	-

W4 Commercial Outside

Monthly Minimum Charge

3/4"	\$	41.72	\$	41.72	\$	42.97	\$	44.26	\$	45.58	\$	46.95	\$	48.36	\$	49.33	\$	50.31	\$	51.32	\$	52.35
1"		73.01		73.01		75.20		77.45		79.77		82.17		84.63		86.33		88.05		89.81		91.61
1 1/2"		146.01		146.01		150.39		154.90		159.55		164.34		169.27		172.65		176.10		179.63		183.22
2"		233.61		233.61		240.62		247.84		255.27		262.93		270.82		276.23		281.76		287.39		293.14
3"		350.40		350.40		360.91		371.74		382.89		394.38		406.21		414.33		422.62		431.07		439.69
4"		584.01		584.01		601.53		619.58		638.16		657.31		677.03		690.57		704.38		718.47		732.84
6"		-		-		-		-		-		-		-		-		-		-		-
8"		-		-		-		-		-		-		-		-		-		-		-

Volume Rate/1,000 Gal

2,001	10,000	7.44	7.59	7.82	8.05	8.29	8.54	8.80	8.97	9.15	9.34	9.52
10,001	20,000	11.16	11.49	11.84	12.19	12.56	12.93	13.32	13.59	13.86	14.14	14.42
20,001	30,000	13.02	13.53	13.94	14.35	14.78	15.23	15.68	16.00	16.32	16.65	16.98
30,001	Above	18.60	19.53	20.12	20.72	21.34	21.98	22.64	23.09	23.56	24.03	24.51

**CITY OF CELINA
WATER/WASTEWATER COST OF SERVICE MODEL**

Current	Effective Jan-18	Effective Jan-19	Effective Jan-20	Effective Jan-21	Effective Jan-22	Effective Jan-23	Effective Jan-24	Effective Jan-25	Effective Jan-26	Effective Jan-27
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City Rate Plan -- 10 Year Summary
Scen: 2019 03 05 Scenario 1 -- Status Quo

2 [REDACTED]

Monthly Minimum Charge

3/4"	\$	20.60	\$	21.50	\$	23.44	\$	25.54	\$	27.84	\$	30.35	\$	33.08	\$	34.07	\$	35.10	\$	36.15	\$	37.23
1"		38.63		38.63		42.11		45.90		50.03		54.53		59.44		61.22		63.06		64.95		66.90
1 1/2"		72.10		72.10		78.59		85.66		93.37		101.78		110.93		114.26		117.69		121.22		124.86
2"		123.60		123.60		134.72		146.85		160.07		174.47		190.17		195.88		201.76		207.81		214.04
3"		-		-		-		-		-		-		-		-		-		-		-
4"		-		-		-		-		-		-		-		-		-		-		-
6"		-		-		-		-		-		-		-		-		-		-		-
8"		-		-		-		-		-		-		-		-		-		-		-

Volume Rate/1,000 Gal

2,001	14,000	5.73	5.84	6.37	6.94	7.56	8.24	8.99	9.26	9.53	9.82	10.11
-	-	-	-	-	-	-	-	-	-	-	-	-

Monthly Minimum Charge

3/4"	30.90	32.25	35.15	38.32	41.76	45.52	49.62	51.11	52.64	54.22	55.85
1"	57.95	57.95	63.16	68.84	75.04	81.79	89.16	91.83	94.59	97.42	100.35
1 1/2"	108.15	108.15	117.88	128.49	140.06	152.66	166.40	171.39	176.54	181.83	187.29
2"	185.40	185.40	202.09	220.27	240.10	261.71	285.26	293.82	302.63	311.71	321.06
3"	-	-	-	-	-	-	-	-	-	-	-
4"	-	-	-	-	-	-	-	-	-	-	-
6"	-	-	-	-	-	-	-	-	-	-	-
8"	-	-	-	-	-	-	-	-	-	-	-

Volume Rate/1,000 Gal

2,001	14,000	8.60	8.76	9.55	10.41	11.34	12.37	13.48	13.88	14.30	14.73	15.17
-	-	-	-	-	-	-	-	-	-	-	-	-

CITY OF CELINA
WATER/WASTEWATER COST OF SERVICE MODEL

	Current	Effective Jan-18	Effective Jan-19	Effective Jan-20	Effective Jan-21	Effective Jan-22	Effective Jan-23	Effective Jan-24	Effective Jan-25	Effective Jan-26	Effective Jan-27
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City Rate Plan -- 10 Year Summary
Scen: 2019 03 05 Scenario 1 -- Status Quo

Monthly Minimum Charge

3/4"	25.75	25.75	28.07	30.59	33.35	36.35	39.62	40.81	42.03	43.29	44.59
1"	48.29	48.29	52.64	57.37	62.54	68.17	74.30	76.53	78.83	81.19	83.63
1 1/2"	90.13	90.13	98.24	107.08	116.72	127.23	138.68	142.84	147.12	151.54	156.08
2"	154.50	154.50	168.41	183.56	200.08	218.09	237.72	244.85	252.19	259.76	267.55
3"	-	-	-	-	-	-	-	-	-	-	-
4"	386.25	386.25	421.01	458.90	500.20	545.22	594.29	612.12	630.49	649.40	668.88
6"	-	-	-	-	-	-	-	-	-	-	-
8"	-	-	-	-	-	-	-	-	-	-	-

Volume Rate/1,000 Gal

2,001	Above	5.73	5.84	6.37	6.94	7.56	8.24	8.99	9.26	9.53	9.82	10.11
-	-	-	-	-	-	-	-	-	-	-	-	-

Monthly Minimum Charge

3/4"	38.63	38.63	42.10	45.89	50.02	54.52	59.43	61.21	63.05	64.94	66.89
1"	72.44	72.44	78.95	86.06	93.81	102.25	111.45	114.79	118.24	121.78	125.44
1 1/2"	135.20	135.20	147.36	160.63	175.08	190.84	208.01	214.25	220.68	227.30	234.12
2"	231.75	231.75	252.61	275.34	300.12	327.13	356.58	367.27	378.29	389.64	401.33
3"	-	-	-	-	-	-	-	-	-	-	-
4"	579.38	579.38	631.52	688.36	750.31	817.84	891.44	918.18	945.73	974.10	1,003.32
6"	-	-	-	-	-	-	-	-	-	-	-
8"	-	-	-	-	-	-	-	-	-	-	-

Volume Rate/1,000 Gal

2,001	Above	8.60	8.76	9.55	10.41	11.34	12.37	13.48	13.88	14.30	14.73	15.17
-	-	-	-	-	-	-	-	-	-	-	-	-

**CITY OF CELINA
WATER/WASTEWATER COST OF SERVICE MODEL**

Current	Effective Jan-18	Effective Jan-19	Effective Jan-20	Effective Jan-21	Effective Jan-22	Effective Jan-23	Effective Jan-24	Effective Jan-25	Effective Jan-26	Effective Jan-27
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City Rate Plan -- 10 Year Summary

Scen: 2019 03 05 Scenario 1 -- Status Quo

3 Residential Water Rates - Water**5,000 Gallons -- 3/4" Meter**

Total	\$ 37.13	\$ 38.33	\$ 39.48	\$ 40.66	\$ 41.88	\$ 43.14	\$ 44.43	\$ 45.32	\$ 46.23	\$ 47.15	\$ 48.10
Dollar Inc		1.20	1.15	1.18	1.22	1.26	1.29	0.89	0.91	0.92	0.94
Percent Inc		3.2%	3.0%	3.0%	3.0%	3.0%	3.0%	2.0%	2.0%	2.0%	2.0%

10,000 Gallons -- 3/4" Meter

Total	61.93	63.63	65.54	67.51	69.53	71.62	73.76	75.24	76.74	78.28	79.85
Dollar Inc		1.70	1.91	1.97	2.03	2.09	2.15	1.48	1.50	1.53	1.57
Percent Inc		2.7%	3.0%	3.0%	3.0%	3.0%	3.0%	2.0%	2.0%	2.0%	2.0%

20,000 Gallons -- 3/4" Meter

Total	136.33	140.23	144.44	148.77	153.23	157.83	162.57	165.82	169.13	172.52	175.97
Dollar Inc		3.90	4.21	4.33	4.46	4.60	4.73	3.25	3.32	3.38	3.45
Percent Inc		2.9%	3.0%	3.0%	3.0%	3.0%	3.0%	2.0%	2.0%	2.0%	2.0%

30,000 Gallons -- 3/4" Meter

Total	223.13	230.43	237.34	244.46	251.80	259.35	267.13	272.47	277.92	283.48	289.15
Dollar Inc		7.30	6.91	7.12	7.33	7.55	7.78	5.34	5.45	5.56	5.67
Percent Inc		3.3%	3.0%	3.0%	3.0%	3.0%	3.0%	2.0%	2.0%	2.0%	2.0%

CITY OF CELINA
WATER/WASTEWATER COST OF SERVICE MODEL

Current	Effective Jan-18	Effective Jan-19	Effective Jan-20	Effective Jan-21	Effective Jan-22	Effective Jan-23	Effective Jan-24	Effective Jan-25	Effective Jan-26	Effective Jan-27
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City Rate Plan -- 10 Year Summary

Scen: 2019 03 05 Scenario 1 -- Status Quo

3 Residential Outside Monthly Charges - WATER**5,000 Gallons -- 3/4" Meter**

Total	\$ 55.70	\$ 57.49	\$ 59.22	\$ 61.00	\$ 62.83	\$ 64.71	\$ 66.65	\$ 67.99	\$ 69.35	\$ 70.73	\$ 72.15
Dollar Inc		1.79	1.73	1.78	1.83	1.88	1.94	1.33	1.36	1.39	1.41
Percent Inc		3.2%	3.0%	3.0%	3.0%	3.0%	3.0%	2.0%	2.0%	2.0%	2.0%

10,000 Gallons -- 3/4" Meter

Total	92.90	95.44	98.31	101.26	104.30	107.42	110.65	112.86	115.12	117.42	119.77
Dollar Inc		2.54	2.87	2.95	3.04	3.12	3.22	2.21	2.26	2.30	2.35
Percent Inc		2.7%	3.0%	3.0%	3.0%	3.0%	3.0%	2.0%	2.0%	2.0%	2.0%

20,000 Gallons -- 3/4" Meter

Total	204.50	210.34	216.71	223.16	229.85	236.75	243.85	248.72	253.70	258.77	263.95
Dollar Inc		5.84	6.37	6.45	6.70	6.89	7.10	4.88	4.97	5.07	5.18
Percent Inc		2.9%	3.0%	3.0%	3.0%	3.0%	3.0%	2.0%	2.0%	2.0%	2.0%

4 Commercial Monthly Charges - WATER**30,000 Gallons -- 1 1/2" Meter**

Total	298.22	304.62	313.76	323.17	332.87	342.85	353.14	360.20	367.40	374.75	382.25
Dollar Inc		6.40	9.14	9.41	9.70	9.99	10.29	7.06	7.20	7.35	7.50
Percent Inc		2.1%	3.0%	3.0%	3.0%	3.0%	3.0%	2.0%	2.0%	2.0%	2.0%

60,000 Gallons -- 1 1/2" Meter

Total	670.22	695.22	716.08	737.56	759.69	782.48	805.95	822.07	838.51	855.28	872.39
Dollar Inc		25.00	20.86	21.48	22.13	22.79	23.47	16.12	16.44	16.77	17.11
Percent Inc		3.7%	3.0%	3.0%	3.0%	3.0%	3.0%	2.0%	2.0%	2.0%	2.0%

CITY OF CELINA
WATER/WASTEWATER COST OF SERVICE MODEL

Current	Effective Jan-18	Effective Jan-19	Effective Jan-20	Effective Jan-21	Effective Jan-22	Effective Jan-23	Effective Jan-24	Effective Jan-25	Effective Jan-26	Effective Jan-27
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City Rate Plan -- 10 Year Summary

Scen: 2019 03 05 Scenario 1 -- Status Quo

5 XXXXXXXXXX**5,000 Gallons -- 3/4" Meter**

Total	\$ 37.79	\$ 39.02	\$ 42.53	\$ 46.36	\$ 50.53	\$ 55.08	\$ 60.04	\$ 61.84	\$ 63.69	\$ 65.60	\$ 67.57
Dollar Inc		1.23	3.51	3.83	4.17	4.55	4.96	1.80	1.86	1.91	1.97
Percent Inc		3.3%	9.0%	9.0%	9.0%	9.0%	9.0%	3.0%	3.0%	3.0%	3.0%

10,000 Gallons -- 3/4" Meter

Total	66.44	68.22	74.36	81.05	88.35	96.30	104.96	108.11	111.36	114.70	118.14
Dollar Inc		1.78	6.14	6.69	7.29	7.95	8.67	3.15	3.24	3.34	3.44
Percent Inc		2.7%	9.0%	9.0%	9.0%	9.0%	9.0%	3.0%	3.0%	3.0%	3.0%

20,000 Gallons -- 3/4" Meter

Total	89.36	91.58	99.82	108.81	118.60	129.27	140.91	145.13	149.49	153.97	158.59
Dollar Inc		2.22	8.24	8.98	9.79	10.67	11.63	4.23	4.35	4.48	4.62
Percent Inc		2.5%	9.0%	9.0%	9.0%	9.0%	9.0%	3.0%	3.0%	3.0%	3.0%

30,000 Gallons -- 3/4" Meter

Total	89.36	91.58	99.82	108.81	118.60	129.27	140.91	145.13	149.49	153.97	158.59
Dollar Inc		2.22	8.24	8.98	9.79	10.67	11.63	4.23	4.35	4.48	4.62
Percent Inc		2.5%	9.0%	9.0%	9.0%	9.0%	9.0%	3.0%	3.0%	3.0%	3.0%

6 XXXXXXXXXX**30,000 Gallons -- 1 1/2" Meter**

Total	\$ 250.57	\$ 253.65	\$ 276.48	\$ 301.36	\$ 328.48	\$ 358.05	\$ 390.27	\$ 401.98	\$ 414.04	\$ 426.46	\$ 439.25
Dollar Inc		3.08	22.83	24.88	27.12	29.56	32.22	11.71	12.06	12.42	12.79
Percent Inc		1.2%	9.0%	9.0%	9.0%	9.0%	9.0%	3.0%	3.0%	3.0%	3.0%

60,000 Gallons -- 1 1/2" Meter

Total	422.47	428.85	467.45	509.52	555.37	605.36	659.84	679.63	700.02	721.02	742.65
Dollar Inc		6.38	38.60	42.07	45.86	49.98	54.48	19.80	20.39	21.00	21.63
Percent Inc		1.5%	9.0%	9.0%	9.0%	9.0%	9.0%	3.0%	3.0%	3.0%	3.0%

CITY OF CELINA WATER/WASTEWATER COST OF SERVICE MODEL												
Current	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027		

Model Summary**Scenario: 2019 03 05 Scenario 1 -- Status Quo****1 Water And Wastewater Rates****Water Rates - Residential**

Monthly Minimum Charge-3/4"	\$	22.25	\$	23.15	\$	23.84	\$	24.56	\$	25.30	\$	26.06	\$	26.84	\$	27.37	\$	27.92	\$	28.48	\$	29.05
Volume Rate Per 1,000 Gal																						
2,001 10,000	\$	4.96	\$	5.06	\$	5.21	\$	5.37	\$	5.53	\$	5.70	\$	5.87	\$	5.98	\$	6.10	\$	6.22	\$	6.35
10,001 20,000		7.44		7.66		7.89		8.13		8.37		8.62		8.88		9.06		9.24		9.42		9.61
20,001 30,000		8.68		9.02		9.29		9.57		9.86		10.15		10.46		10.67		10.88		11.10		11.32
30,001 Above		12.40		13.02		13.41		13.81		14.23		14.65		15.09		15.40		15.70		16.02		16.34

Monthly Charge	\$	20.60	\$	21.50	\$	23.44	\$	25.54	\$	27.84	\$	30.35	\$	33.08	\$	34.07	\$	35.10	\$	36.15	\$	37.23
Volume Rate/1,000 Gal (2,001 to 14,000)		5.73		5.84		6.37		6.94		7.56		8.24		8.99		9.26		9.53		9.82		10.11

2 Residential Standard Monthly Bill

5,000 W	Total	\$	74.92	\$	77.35	\$	82.01	\$	87.02	\$	92.42	\$	98.22	\$	104.47	\$	107.16	\$	109.92	\$	112.76	\$	115.67
5,000 WW	Increase -- \$				2.43		4.66		5.01		5.39		5.80		6.25		2.69		2.76		2.84		2.91
	Increase -- %				3.2%		6.0%		6.1%		6.2%		6.3%		6.4%		2.6%		2.6%		2.6%		2.6%
10,000 W	Total		128.37		131.85		139.90		148.56		157.88		167.91		178.73		183.35		188.10		192.98		197.98
10,000 WW	Increase -- \$				3.48		8.05		8.66		9.32		10.04		10.82		4.62		4.75		4.88		5.01
	Increase -- %				2.7%		6.1%		6.2%		6.3%		6.4%		6.4%		2.6%		2.6%		2.6%		2.6%
20,000 W	Total		225.69		231.81		244.26		257.58		271.83		287.10		303.47		310.95		318.62		326.49		334.56
14,000 WW	Increase -- \$				6.12		12.45		13.32		14.26		15.27		16.37		7.48		7.67		7.87		8.07
	Increase -- %				2.7%		5.4%		5.5%		5.5%		5.6%		5.7%		2.5%		2.5%		2.5%		2.5%
30,000 W	Total		312.49		322.01		337.17		353.27		370.40		388.62		408.04		417.61		427.41		437.46		447.74
14,000 WW	Increase -- \$				9.52		15.16		16.10		17.13		18.23		19.42		9.57		9.80		10.04		10.29
	Increase -- %				3.0%		4.7%		4.8%		4.8%		4.9%		5.0%		2.3%		2.3%		2.3%		2.4%

CITY OF CELINA WATER/WASTEWATER COST OF SERVICE MODEL											
	Current	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027

Model Summary**Scenario: 2019 03 05 Scenario 1 -- Status Quo**

3 Fund Balance, Revenues and Expenses											
Beginning Fund Balance	\$ -	\$ 1,169,730	\$ 1,484,899	\$ 3,962,369	\$ 4,286,453	\$ 5,850,681	\$ 6,964,532	\$ 9,694,433	\$ 11,414,289	\$ 14,313,320	
Revenues and Expenses											
Water Rate Revenues	\$ 5,872,806	\$ 7,395,658	\$ 9,150,457	\$ 10,478,665	\$ 11,879,016	\$ 13,329,715	\$ 14,707,339	\$ 16,007,796	\$ 17,240,695	\$ 18,568,550	
WW Rate Revenues	2,769,065	3,612,251	4,729,338	5,731,083	6,875,224	8,164,048	9,232,957	10,147,704	11,036,265	12,002,639	
Non-Rate Revenues	2,879,300	2,879,300	3,087,555	2,334,034	2,334,973	2,302,193	2,233,024	2,126,124	1,981,705	2,046,516	
Total Revenues	11,521,171	13,887,210	16,967,351	18,543,782	21,089,213	23,795,955	26,173,319	28,281,624	30,258,664	32,617,705	
Operating Expenses	7,303,713	8,386,530	9,284,294	10,032,283	11,318,410	12,151,728	12,886,690	14,192,829	14,967,342	15,793,934	
Net Revenues for Transfers,Capital Outlays and Debt	4,217,458	5,500,679	7,683,057	8,511,499	9,770,803	11,644,228	13,286,630	14,088,795	15,291,322	16,823,771	
Capital Outlays	299,734	299,734	299,734	299,734	299,734	299,734	299,734	299,734	299,734	299,734	
Current Debt Service	2,220,995	2,231,473	2,235,266	2,231,036	2,232,919	2,229,482	2,237,505	1,919,346	1,923,253	1,914,860	
Future Debt Service	-	2,111,492	2,111,492	5,080,779	5,080,779	7,390,223	7,390,223	9,501,716	9,501,716	10,623,446	
Total Debt Service	2,220,995	4,342,966	4,346,759	7,311,814	7,313,698	9,619,706	9,627,729	11,421,062	11,424,969	12,538,306	
Total Contingencies & Transfers	527,000	542,810	559,094	575,867	593,143	610,937	629,266	648,144	667,588	687,615	
Total Cost of Service	10,351,442	13,572,040	14,489,881	18,219,698	19,524,985	22,682,105	23,443,418	26,561,769	27,359,633	29,319,589	
Net Revenues	1,169,730	315,169	2,477,470	324,064	1,564,228	1,113,851	2,729,901	1,719,856	2,899,032	3,288,116	
Percent of COS	11.3%	2.3%	17.1%	1.8%	8.0%	4.9%	11.6%	6.5%	10.6%	11.2%	
Debt Coverage	1.90	1.27	1.77	1.16	1.34	1.21	1.38	1.23	1.34	1.34	
Ending Water & Sewer Combined Fund Balance	1,169,730	1,484,899	3,962,369	4,286,453	5,850,681	6,964,532	9,694,433	11,414,289	14,313,320	17,611,436	
One Day Operating Expenditures (Op Exp+Det Svc)	27,539	36,362	38,877	49,096	52,672	61,322	63,407	71,951	74,137	79,506	
Days of Operating Expenditures	42	41	102	87	111	114	153	159	193	222	
Fund Balance Goal Days	60	1,652,335	2,181,749	2,332,627	2,945,748	3,160,315	3,679,294	3,804,441	4,317,047	4,448,203	4,770,387
Over (Short) of Requirement		(482,606)	(696,850)	1,629,742	1,340,705	2,690,366	3,285,238	5,889,992	7,097,242	9,865,118	12,841,049