

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

Current    2018    2019    2020    2021    2022    2023    2024

**Model Summary****Scenario: 2018 11 14 Scenario 1 -- Status Quo****1 Water and Wastewater Rates**

<b>Monthly Minimum Charge--3/4"</b>		\$	22.25	\$	23.15	\$	23.84	\$	24.56	\$	25.30	\$	26.06	\$	26.84	\$	27.37	\$	27.92	\$	28.48	\$	29.05
<b>Volume Rate Per 1,000 Gal</b>																							
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 Wastewater Service 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

**Model Summary****Scenario: 2018 11 14 Scenario 1 -- Status Quo**

<b>3 Fund Balance, Revenues and Expenses</b>																				
<b>Beginning Fund Balance</b>	\$	-	\$	1,169,973	\$	1,471,738	\$	3,924,382	\$	4,220,043	\$	5,752,045	\$	6,829,735	\$	9,528,590	\$	11,219,359	\$	14,087,037
<b>Revenues and Expenses</b>																				
Water Rate Revenues	\$	5,872,806	\$	7,381,866	\$	9,125,209	\$	10,449,782	\$	11,846,288	\$	13,293,007	\$	14,675,719	\$	15,978,119	\$	17,208,732	\$	18,534,125
WW Rate Revenues		2,769,309		3,612,639		4,729,761		5,731,544		6,875,726		8,164,595		9,233,531		10,148,295		11,036,873		12,003,266
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		11,521,415		13,873,805		16,942,525		18,515,359		21,056,987		23,759,794		26,142,273		28,252,538		30,227,310		32,583,908
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		4,217,702		5,487,274		7,658,231		8,483,076		9,738,577		11,608,067		13,255,584		14,059,709		15,259,968		16,789,973
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
<b>Total Contingencies &amp; Transfers</b>		527,000		542,810		559,094		575,867		593,143		610,937		629,266		648,144		667,588		687,615
<b>Total Cost of Service</b>		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
<b>Net Revenues</b>		<b>1,169,973</b>		<b>301,766</b>		<b>2,452,645</b>		<b>296,660</b>		<b>1,532,562</b>		<b>1,077,890</b>		<b>2,690,355</b>		<b>1,000,770</b>		<b>2,967,678</b>		<b>5,264,916</b>
Percent of COS		11.3%		2.2%		16.9%		1.6%		7.8%		4.8%		11.5%		6.4%		10.5%		11.1%
Debt Coverage		1.90		1.26		1.76		1.16		1.33		1.21		1.38		1.23		1.34		1.34
<b>Ending Water &amp; Sewer Combined Fund Balance</b>		<b>1,169,973</b>		<b>1,471,738</b>		<b>3,924,382</b>		<b>4,220,043</b>		<b>5,752,045</b>		<b>6,829,735</b>		<b>9,528,590</b>		<b>11,219,359</b>		<b>14,087,037</b>		<b>17,351,355</b>
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
<b>Days of Operating Expenditures</b>		<b>42</b>		<b>40</b>		<b>101</b>		<b>86</b>		<b>109</b>		<b>111</b>		<b>150</b>		<b>156</b>		<b>190</b>		<b>218</b>
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		(482,362)		(710,011)		1,591,756		1,274,295		2,591,730		3,150,441		5,724,149		6,902,313		9,638,835		12,580,968

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

Current    2018    2019    2020    2021    2022    2023    2024    2025    2026    2027    2028

**Model Summary****Scenario: 2018 11 14 Scenario 1 -- Status Quo****5 Total Accounts****Water Accounts**

Total Accounts	5,090	6,228	7,482	8,318	9,155	9,974	10,754	11,476	12,117	12,795
New Accounts	-	1,138	1,253	836	837	819	781	721	641	677
Avg Annual Growth Rate		22.36%	20.12%	11.18%	10.06%	8.94%	7.83%	6.71%	5.59%	5.59%

**Wastewater Accounts**

Total Accounts	4,356	5,329	6,401	7,116	7,832	8,533	9,200	9,817	10,366	10,945
New Accounts	-	973	1,072	715	716	700	668	617	549	579
Avg Annual Growth Rate		22.35%	20.12%	11.18%	10.06%	8.94%	7.82%	6.71%	5.59%	5.59%

**6 Annual Volume****Water Volume**

Residential	308,850,184	377,909,858	453,961,289	504,714,730	555,499,694	605,184,143	652,546,384	696,319,686	735,244,392	776,345,014
Residential Outside	100,247,428	122,663,003	147,347,983	163,821,671	180,305,592	196,432,305	211,805,269	226,013,326	238,647,612	251,988,163
Commercial	104,120,104	127,401,620	153,040,209	170,150,296	187,271,011	204,020,718	219,987,558	234,744,488	247,866,852	261,722,764
Commercial Outside	22,390,069	27,396,544	32,909,886	36,589,253	40,270,905	43,872,775	47,306,296	50,479,638	53,301,482	56,281,068
Other5	-	-	-	-	-	-	-	-	-	-
Other6	-	-	-	-	-	-	-	-	-	-
Other7	-	-	-	-	-	-	-	-	-	-
Other8	-	-	-	-	-	-	-	-	-	-
Other9	-	-	-	-	-	-	-	-	-	-
Other10	-	-	-	-	-	-	-	-	-	-
Total System	535,607,785	655,371,026	787,259,368	875,275,950	963,347,202	1,049,509,940	1,131,645,508	1,207,557,138	1,275,060,338	1,346,337,009

**Wastewater Billing Units**

Residential	288,193,448	352,634,224	423,599,130	470,958,042	518,346,371	564,707,790	608,902,316	649,747,940	686,069,257	724,420,958
Residential Outside	76,000	76,000	76,000	76,000	76,000	76,000	76,000	76,000	76,000	76,000
Commercial	24,239,678	29,659,731	35,628,521	39,611,835	43,597,622	47,497,037	51,214,197	54,649,684	57,704,635	60,930,360
Commercial Outside	60,300	60,300	60,300	60,300	60,300	60,300	60,300	60,300	60,300	60,300
Other5	-	-	-	-	-	-	-	-	-	-
Other6	-	-	-	-	-	-	-	-	-	-
Other7	-	-	-	-	-	-	-	-	-	-
Other8	-	-	-	-	-	-	-	-	-	-
Other9	-	-	-	-	-	-	-	-	-	-
Other10	-	-	-	-	-	-	-	-	-	-
Total System	312,569,426	382,430,254	459,363,951	510,706,177	562,080,293	612,341,127	660,252,813	704,533,924	743,910,192	785,487,618

CITY OF CELINA WATER/WASTEWATER COST OF SERVICE MODEL											
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
<b>Revenue Summary</b>											
<b>Scenario: 2018 11 14 Scenario 1 -- Status Quo</b>											
<b>Water Revenue Total</b>											
W1 Residential	\$ 2,679,839	\$ 3,372,479	\$ 4,172,699	\$ 4,778,388	\$ 5,416,971	\$ 6,078,515	\$ 6,706,728	\$ 7,299,753	\$ 7,861,970	\$ 8,467,488	
W2 Residential Outside	1,355,180	1,686,714	2,078,714	2,380,450	2,698,573	3,028,134	3,349,973	3,650,925	3,932,114	4,234,960	
W3 Commercial	1,404,313	1,774,452	2,195,493	2,514,180	2,850,175	3,198,250	3,528,788	3,840,812	4,136,626	4,455,224	
W4 Commercial Outside	433,474	548,222	678,304	776,763	880,569	988,108	1,090,229	1,186,630	1,278,022	1,376,454	
Total Rate Revenue	5,872,806	7,381,866	9,125,209	10,449,782	11,846,288	13,293,007	14,675,719	15,978,119	17,208,732	18,534,125	
Non-Rate Revenue	1,675,083	1,675,083	1,793,131	1,366,001	1,366,534	1,347,952	1,308,744	1,248,149	1,166,286	1,203,024	
<b>Total Revenue</b>	<b>7,547,889</b>	<b>9,056,949</b>	<b>10,918,341</b>	<b>11,815,783</b>	<b>13,212,822</b>	<b>14,640,959</b>	<b>15,984,463</b>	<b>17,226,268</b>	<b>18,375,018</b>	<b>19,737,149</b>	
<b>Water Revenue by Category</b>											
W1 Residential		692,640	800,220	605,689	638,583	661,543	628,213	593,025	562,217	605,518	
W2 Residential Outside		331,534	392,000	301,736	318,123	329,561	321,839	300,951	281,189	302,846	
W3 Commercial		370,139	421,041	318,687	335,994	348,075	330,539	312,024	295,814	318,597	
W4 Commercial Outside		114,748	130,082	98,459	103,806	107,539	102,121	96,401	91,393	98,432	
Total Rate Revenue		1,509,060	1,743,343	1,324,572	1,396,506	1,446,719	1,382,712	1,302,401	1,230,613	1,325,393	
Non-Rate Revenue		-	118,048	(427,130)	532	(18,581)	(39,208)	(60,595)	(81,863)	36,738	
<b>Total Revenue</b>		<b>1,509,060</b>	<b>1,861,392</b>	<b>897,442</b>	<b>1,397,039</b>	<b>1,428,138</b>	<b>1,343,504</b>	<b>1,241,805</b>	<b>1,148,750</b>	<b>1,362,131</b>	

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

**Revenue Summary****Scenario: 2018 11 14 Scenario 1 -- Status Quo**

WW1	Residential	\$ 2,535,534	\$ 3,308,742	\$ 4,332,315	\$ 5,250,174	\$ 6,298,513	\$ 7,479,426	\$ 8,458,881	\$ 9,297,098	\$ 10,111,316	\$ 10,996,841
WW2	Residential Outside	978	1,121	1,222	1,332	1,452	1,583	1,660	1,710	1,761	1,814
WW3	Commercial	231,918	301,788	395,147	478,864	574,482	682,192	771,528	847,981	922,245	1,003,013
WW4	Commercial Outside	880	988	1,077	1,173	1,279	1,394	1,462	1,506	1,551	1,598
	Total Rate Revenue	2,769,309	3,612,639	4,729,761	5,731,544	6,875,726	8,164,595	9,233,531	10,148,295	11,036,873	12,003,266
	Non-Rate Revenue	1,204,217	1,204,217	1,294,424	968,032	968,439	954,240	924,279	877,975	815,419	843,493
	<b>Total Revenue</b>	<b>3,973,526</b>	<b>4,816,856</b>	<b>6,024,185</b>	<b>6,699,576</b>	<b>7,844,165</b>	<b>9,118,835</b>	<b>10,157,810</b>	<b>11,026,270</b>	<b>11,852,293</b>	<b>12,846,759</b>

WW1	Residential	773,208	1,023,573	917,859	1,048,339	1,180,913	979,455	838,217	814,218	885,525
WW2	Residential Outside	143	101	110	120	131	77	50	51	53
WW3	Commercial	69,870	93,359	83,717	95,618	107,710	89,335	76,453	74,264	80,768
WW4	Commercial Outside	108	89	97	106	115	68	44	45	47
	Total Rate Revenue	843,330	1,117,122	1,001,783	1,144,183	1,288,868	1,068,936	914,764	888,579	966,393
	Non-Rate Revenue	-	90,207	(326,392)	407	(14,199)	(29,961)	(46,304)	(62,556)	28,073
	<b>Total Revenue</b>	<b>843,330</b>	<b>1,207,329</b>	<b>675,391</b>	<b>1,144,589</b>	<b>1,274,670</b>	<b>1,038,975</b>	<b>868,460</b>	<b>826,023</b>	<b>994,466</b>

CITY OF CELINA WATER/WASTEWATER COST OF SERVICE MODEL																					
	Current	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027										
Revenue and Expense Summary																					
Scen: 2018 11 14 Scenario 1 -- Status Quo																					
1	TOTAL Revenue and Expenses -- CASH BASIS																				
Beginning Fund Balance		\$	-	\$	1,169,973	\$	1,471,738	\$	3,924,382	\$	4,220,043	\$	5,752,045	\$	6,829,735	\$	9,528,590	\$	11,219,359	\$	14,087,037
Rate Revenues																					
Water Rate Revenue																					
W1	Residential		2,679,839	3,372,479	4,172,699	4,778,388	5,416,971	6,078,515	6,706,728	7,299,753	7,861,970	8,467,488									
W2	Residential Outside		1,355,180	1,686,714	2,078,714	2,380,450	2,698,573	3,028,134	3,349,973	3,650,925	3,932,114	4,234,960									
W3	Commercial		1,404,313	1,774,452	2,195,493	2,514,180	2,850,175	3,198,250	3,528,788	3,840,812	4,136,626	4,455,224									
W4	Commercial Outside		433,474	548,222	678,304	776,763	880,569	988,108	1,090,229	1,186,630	1,278,022	1,376,454									
	Total		5,872,806	7,381,866	9,125,209	10,449,782	11,846,288	13,293,007	14,675,719	15,978,119	17,208,732	18,534,125									
Wastewater Rate Revenue																					
WW1	Residential		2,535,534	3,308,742	4,332,315	5,250,174	6,298,513	7,479,426	8,458,881	9,297,098	10,111,316	10,996,841									
WW2	Residential Outside		978	1,121	1,222	1,332	1,452	1,583	1,660	1,710	1,761	1,814									
WW3	Commercial		231,918	301,788	395,147	478,864	574,482	682,192	771,528	847,981	922,245	1,003,013									
WW4	Commercial Outside		880	988	1,077	1,173	1,279	1,394	1,462	1,506	1,551	1,598									
	Total		2,769,309	3,612,639	4,729,761	5,731,544	6,875,726	8,164,595	9,233,531	10,148,295	11,036,873	12,003,266									
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			11,521,415	13,873,805	16,942,525	18,515,359	21,056,987	23,759,794	26,142,273	28,252,538	30,227,310	32,583,908									
Cost of Service																					
Cost Center Code																					
24	Utility Billing		292,258	303,528	362,695	376,822	442,318	459,753	478,010	497,135	517,178	538,192									
21	Water Operations		1,842,858	1,909,728	2,037,333	2,171,918	2,251,998	2,335,529	2,422,691	2,513,673	2,608,681	2,707,929									
22	Sewer Operations		1,048,360	1,101,408	1,154,983	1,261,771	1,378,894	1,558,028	1,624,966	1,698,729	1,770,428	1,845,887									
UTRWD-W	Upper Tnnity Regional Water District- Water		2,111,200	2,841,778	3,246,517	3,548,227	4,370,998	4,716,766	5,068,882	5,981,962	6,366,659	6,777,020									
UTRWD-S	Upper Tnnity Regional Water District- Sewer		2,009,037	2,230,089	2,482,766	2,673,545	2,874,202	3,081,651	3,292,141	3,501,329	3,704,396	3,924,906									
	Total		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									

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

**Revenue and Expense Summary****Scen: 2018 11 14 Scenario 1 -- Status Quo**

<b>Budget Code</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>
1 Personnel Svcs	1,351,926	1,401,088	1,557,729	1,730,782	1,903,405	2,093,855	2,173,138	2,256,116	2,343,007	2,434,041
2 Contractual	226,200	232,986	239,976	247,175	254,590	262,228	270,095	278,197	286,543	295,140
3 Materials & Supplies	729,400	753,282	778,040	803,714	830,345	857,977	886,655	916,428	947,349	979,471
4 Operations	380,500	399,038	415,460	431,584	452,463	470,089	488,381	511,839	531,723	552,531
5 Utilities	319,849	335,059	351,007	367,728	385,260	403,643	422,918	443,130	464,325	486,551
6 Administration	130,275	136,395	142,850	149,660	156,849	164,440	172,459	180,933	189,890	199,363
UTRWD-W Upper Trinity Regional Water District- Water	2,111,200	2,841,778	3,246,517	3,548,227	4,370,998	4,716,766	5,068,882	5,981,962	6,366,659	6,777,020
UTRWD-S Upper Trinity Regional Water District- Sewer	2,054,363	2,286,905	2,552,716	2,753,412	2,964,499	3,182,731	3,404,162	3,624,223	3,837,846	4,069,818
<b>Total</b>	<b>7,303,713</b>	<b>8,386,530</b>	<b>9,284,294</b>	<b>10,032,283</b>	<b>11,318,410</b>	<b>12,151,728</b>	<b>12,886,690</b>	<b>14,192,829</b>	<b>14,967,342</b>	<b>15,793,934</b>
<b>Total Operating Expenses</b>	<b>7,303,713</b>	<b>8,386,530</b>	<b>9,284,294</b>	<b>10,032,283</b>	<b>11,318,410</b>	<b>12,151,728</b>	<b>12,886,690</b>	<b>14,192,829</b>	<b>14,967,342</b>	<b>15,793,934</b>
<b>Net Revenues for Transfers, Capital Outlays and Debt Service</b>	<b>4,217,702</b>	<b>5,487,274</b>	<b>7,658,231</b>	<b>8,483,076</b>	<b>9,738,577</b>	<b>11,608,067</b>	<b>13,255,584</b>	<b>14,059,709</b>	<b>15,259,968</b>	<b>16,789,973</b>
<b>Capital Outlays</b>	<b>299,734</b>	<b>299,734</b>	<b>299,734</b>	<b>299,734</b>	<b>299,734</b>	<b>299,734</b>	<b>299,734</b>	<b>299,734</b>	<b>299,734</b>	<b>299,734</b>
<b>Debt Service</b>										
Debt Service -- Current	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
Debt Service -- Future	-	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
<b>Total Debt Service</b>	<b>2,220,995</b>	<b>4,342,966</b>	<b>4,346,759</b>	<b>7,311,814</b>	<b>7,313,698</b>	<b>9,619,706</b>	<b>9,627,729</b>	<b>11,421,062</b>	<b>11,424,969</b>	<b>12,538,306</b>
<b>Net Revenues for Contingencies &amp; Transfers</b>	<b>1,696,973</b>	<b>844,575</b>	<b>3,011,739</b>	<b>871,527</b>	<b>2,125,145</b>	<b>1,688,627</b>	<b>3,328,121</b>	<b>2,338,913</b>	<b>3,535,266</b>	<b>3,951,934</b>
<b>Total Contingencies &amp; Transfers</b>	<b>527,000</b>	<b>542,810</b>	<b>559,094</b>	<b>575,867</b>	<b>593,143</b>	<b>610,937</b>	<b>629,266</b>	<b>648,144</b>	<b>667,588</b>	<b>687,615</b>
<b>Total Cost of Service</b>	<b>10,351,442</b>	<b>13,572,040</b>	<b>14,489,881</b>	<b>18,219,698</b>	<b>19,524,985</b>	<b>22,682,105</b>	<b>23,443,418</b>	<b>26,561,769</b>	<b>27,359,633</b>	<b>29,319,589</b>
<b>Percent of COS</b>	<b>10 2%</b>	<b>2 2%</b>	<b>14 5%</b>	<b>1 6%</b>	<b>7 3%</b>	<b>4 5%</b>	<b>10 3%</b>	<b>6 0%</b>	<b>9 5%</b>	<b>10 0%</b>
<b>Ending Fund Balance</b>	<b>1,169,973</b>	<b>1,471,738</b>	<b>3,924,382</b>	<b>4,220,043</b>	<b>5,752,045</b>	<b>6,829,735</b>	<b>9,528,590</b>	<b>11,219,359</b>	<b>14,087,037</b>	<b>17,351,355</b>
<b>Revenue Adequacy Tests</b>										
Total Operating + Debt Service + Transfers	10,051,708	13,272,306	14,190,147	17,919,964	19,225,251	22,382,371	23,143,684	26,262,035	27,059,899	29,019,855
Expenses Per Day	27,539	36,362	38,877	49,096	52,672	61,322	63,407	71,951	74,137	79,506
<b>Days of Operating Expenses</b>	<b>42</b>	<b>40</b>	<b>101</b>	<b>86</b>	<b>109</b>	<b>111</b>	<b>150</b>	<b>156</b>	<b>190</b>	<b>218</b>
<b>Debt Coverage</b>	<b>1.90</b>	<b>1.26</b>	<b>1.76</b>	<b>1.16</b>	<b>1.33</b>	<b>1.21</b>	<b>1.38</b>	<b>1.23</b>	<b>1.34</b>	<b>1.34</b>
(excludes Debt, Cap Outlays, G/F Transfers)	<b>1.56</b>	<b>1.14</b>	<b>1.63</b>	<b>1.08</b>	<b>1.25</b>	<b>1.14</b>	<b>1.31</b>	<b>1.17</b>	<b>1.28</b>	<b>1.28</b>

CITY OF CELINA WATER/WASTEWATER COST OF SERVICE MODEL											
	Current	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Revenue and Expense Summary											
Scen: 2018 11 14 Scenario 1 -- Status Quo											
2	<del>Water/Wastewater Cost of Service - Cell 1 Line</del>										
Water Revenues											
Water Rate Revenue											
W1	Residential	\$ 2,679,839	\$ 3,372,479	\$ 4,172,699	\$ 4,778,388	\$ 5,416,971	\$ 6,078,515	\$ 6,706,728	\$ 7,299,753	\$ 7,861,970	\$ 8,467,488
W2	Residential Outside	1,355,180	1,686,714	2,078,714	2,380,450	2,698,573	3,028,134	3,349,973	3,650,925	3,932,114	4,234,960
W3	Commercial	1,404,313	1,774,452	2,195,493	2,514,180	2,850,175	3,198,250	3,528,788	3,840,812	4,136,626	4,455,224
W4	Commercial Outside	433,474	548,222	678,304	776,763	880,569	988,108	1,090,229	1,186,630	1,278,022	1,376,454
		5,872,806	7,381,866	9,125,209	10,449,782	11,846,288	13,293,007	14,675,719	15,978,119	17,208,732	18,534,125
	Non-Rate Revenues	1,675,083	1,675,083	1,793,131	1,366,001	1,366,534	1,347,952	1,308,744	1,248,149	1,166,286	1,203,024
	Total Revenues	7,547,889	9,056,949	10,918,341	11,815,783	13,212,822	14,640,959	15,984,463	17,226,268	18,375,018	19,737,149
Water Cost of Service											
Cost Center Code											
24	Utility Billing	185,273	192,418	229,926	238,882	280,402	291,455	303,029	315,153	327,859	341,181
21	Water Operations	1,842,858	1,909,728	2,037,333	2,171,918	2,251,998	2,335,529	2,422,691	2,513,673	2,608,681	2,707,929
22	Sewer Operations	-	-	-	-	-	-	-	-	-	-
UTRWD-W	Upper Trinity Regional Water District- Water	2,111,200	2,841,778	3,246,517	3,548,227	4,370,998	4,716,766	5,068,882	5,981,962	6,366,659	6,777,020
UTRWD-S	Upper Trinity Regional Water District- Sewer	-	-	-	-	-	-	-	-	-	-
	Total	4,139,331	4,943,924	5,513,776	5,959,027	6,903,399	7,343,750	7,794,602	8,810,788	9,303,199	9,826,129



CITY OF CELINA WATER/WASTEWATER COST OF SERVICE MODEL										
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
<b>Revenue and Expense Summary</b>										
<b>Scen: 2018 11 14 Scenario 1 -- Status Quo</b>										
<b>Budget Code</b>										
1 Personnel Svcs	860,891	891,875	1,012,170	1,109,018	1,181,962	1,225,829	1,271,684	1,319,641	1,369,821	1,422,354
2 Contractual	26,149	26,934	27,742	28,574	29,431	30,314	31,224	32,160	33,125	34,119
3 Materials & Supplies	658,400	679,152	700,607	722,791	745,735	769,467	794,020	819,428	845,725	872,947
4 Operations	164,509	170,794	177,376	184,272	191,501	199,083	207,039	215,392	224,167	233,391
5 Utilities	237,864	249,273	261,237	273,785	286,945	300,748	315,223	330,406	346,331	363,034
6 Administration	80,318	84,118	88,128	92,359	96,826	101,545	106,530	111,799	117,371	123,264
UTRWD-W Upper Trinity Regional Water District- Water	2,111,200	2,841,778	3,246,517	3,548,227	4,370,998	4,716,766	5,068,882	5,981,962	6,366,659	6,777,020
UTRWD-S Upper Trinity Regional Water District- Sewer	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>4,139,331</b>	<b>4,943,924</b>	<b>5,513,776</b>	<b>5,959,027</b>	<b>6,903,399</b>	<b>7,343,750</b>	<b>7,794,602</b>	<b>8,810,788</b>	<b>9,303,199</b>	<b>9,826,129</b>
<b>Total Operating Expenses</b>	<b>4,139,331</b>	<b>4,943,924</b>	<b>5,513,776</b>	<b>5,959,027</b>	<b>6,903,399</b>	<b>7,343,750</b>	<b>7,794,602</b>	<b>8,810,788</b>	<b>9,303,199</b>	<b>9,826,129</b>
<b>Net Revenues for Transfers,Capital Outlays and Debt Service</b>	<b>3,408,557</b>	<b>4,113,025</b>	<b>5,404,564</b>	<b>5,856,756</b>	<b>6,309,423</b>	<b>7,297,209</b>	<b>8,189,862</b>	<b>8,415,480</b>	<b>9,071,819</b>	<b>9,911,020</b>
<b>Capital Outlays</b>	<b>181,823</b>	<b>181,823</b>	<b>181,823</b>	<b>181,823</b>	<b>181,823</b>	<b>181,823</b>	<b>181,823</b>	<b>181,823</b>	<b>181,823</b>	<b>181,823</b>
<b>Debt Service</b>										
Debt Service -- Current	1,313,274	1,319,470	1,321,713	1,319,211	1,320,325	1,318,293	1,323,037	1,134,909	1,137,219	1,132,256
Debt Service -- Future	-	1,187,714	1,187,714	3,167,239	3,167,239	4,025,032	4,025,032	4,420,937	4,420,937	4,552,906
<b>Total Debt Service</b>	<b>1,313,274</b>	<b>2,507,185</b>	<b>2,509,427</b>	<b>4,486,450</b>	<b>4,487,564</b>	<b>5,343,325</b>	<b>5,348,069</b>	<b>5,555,847</b>	<b>5,558,157</b>	<b>5,685,162</b>
<b>Net Revenues for Contingencies &amp; Transfers</b>	<b>1,913,460</b>	<b>1,424,017</b>	<b>2,713,314</b>	<b>1,188,483</b>	<b>1,640,036</b>	<b>1,772,061</b>	<b>2,659,969</b>	<b>2,677,810</b>	<b>3,331,839</b>	<b>4,044,035</b>
<b>Total Contingencies &amp; Transfers</b>	<b>359,415</b>	<b>370,198</b>	<b>381,304</b>	<b>392,743</b>	<b>404,525</b>	<b>416,661</b>	<b>429,160</b>	<b>442,035</b>	<b>455,296</b>	<b>468,955</b>
<b>Total Cost of Service</b>	<b>5,993,844</b>	<b>8,003,129</b>	<b>8,586,330</b>	<b>11,020,043</b>	<b>11,977,310</b>	<b>13,285,559</b>	<b>13,753,654</b>	<b>14,990,493</b>	<b>15,498,475</b>	<b>16,162,070</b>
<b>Percent of COS</b>	<b>20.6%</b>	<b>11.6%</b>	<b>21.4%</b>	<b>6.7%</b>	<b>9.4%</b>	<b>9.3%</b>	<b>14.0%</b>	<b>13.0%</b>	<b>15.7%</b>	<b>18.1%</b>
<b>Debt Coverage</b>	<b>2.60</b>	<b>1.64</b>	<b>2.15</b>	<b>1.31</b>	<b>1.41</b>	<b>1.37</b>	<b>1.53</b>	<b>1.51</b>	<b>1.63</b>	<b>1.74</b>

CITY OF CELINA WATER/WASTEWATER COST OF SERVICE MODEL										
	Current	2016	2019	2020	2021	2022	2023	2024	2025	2026

**Revenue and Expense Summary**

Scen: 2018 11 14 Scenario 1 -- Status Quo

3

**Wastewater Revenues****Wastewater Rate Revenue**

WW1 Residential	\$ 2,535,534	\$ 3,308,742	\$ 4,332,315	\$ 5,250,174	\$ 6,298,513	\$ 7,479,426	\$ 8,458,881	\$ 9,297,098	\$ 10,111,316	\$ 10,996,841
WW2 Residential Outside	978	1,121	1,222	1,332	1,452	1,583	1,660	1,710	1,761	1,814
WW3 Commercial	231,918	301,788	395,147	478,864	574,482	682,192	771,528	847,981	922,245	1,003,013
WW4 Commercial Outside	880	988	1,077	1,173	1,279	1,394	1,462	1,506	1,551	1,598
	<u>2,769,309</u>	<u>3,612,639</u>	<u>4,729,761</u>	<u>5,731,544</u>	<u>6,875,726</u>	<u>8,164,595</u>	<u>9,233,531</u>	<u>10,148,295</u>	<u>11,036,873</u>	<u>12,003,266</u>
Non-Rate Revenues	1,204,217	1,204,217	1,294,424	968,032	968,439	954,240	924,279	877,975	815,419	843,493
<b>Total Revenues</b>	<b>3,973,526</b>	<b>4,816,856</b>	<b>6,024,185</b>	<b>6,699,576</b>	<b>7,844,165</b>	<b>9,118,835</b>	<b>10,157,810</b>	<b>11,026,270</b>	<b>11,852,293</b>	<b>12,846,759</b>

**Wastewater Cost of Service****Cost Center Code**

24 Utility Billing	106,985	111,110	132,769	137,940	161,916	168,298	174,981	181,982	189,319	197,012
21 Water Operations	-	-	-	-	-	-	-	-	-	-
22 Sewer Operations	1,048,360	1,101,408	1,154,983	1,261,771	1,378,894	1,558,028	1,624,966	1,698,729	1,770,428	1,845,887
UTRWD-W Upper Trinity Regional Water District- Water	-	-	-	-	-	-	-	-	-	-
UTRWD-S Upper Trinity Regional Water District- Sewer	2,009,037	2,230,089	2,482,766	2,673,545	2,874,202	3,081,651	3,292,141	3,501,329	3,704,396	3,924,906
<b>Total</b>	<b>3,164,382</b>	<b>3,442,607</b>	<b>3,770,518</b>	<b>4,073,256</b>	<b>4,415,011</b>	<b>4,807,977</b>	<b>5,092,088</b>	<b>5,382,040</b>	<b>5,664,143</b>	<b>5,967,805</b>

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

**Current    2018    2019    2020    2021    2022    2023    2024    2025    2026    2027**

**Revenue and Expense Summary****Scen: 2018 11 14 Scenario 1 -- Status Quo**

Budget Code											
1	Personnel Svcs	491,035	509,213	545,559	621,764	721,443	868,027	901,454	936,476	973,186	1,011,687
2	Contractual	200,051	206,052	212,234	218,601	225,159	231,914	238,871	246,037	253,418	261,021
3	Materials & Supplies	71,000	74,130	77,434	80,923	84,611	88,510	92,634	97,000	101,624	106,524
4	Operations	215,991	228,243	238,083	247,312	260,963	271,006	281,343	296,447	307,556	319,140
5	Utilities	81,985	85,787	89,770	93,942	98,314	102,895	107,695	112,724	117,994	123,517
6	Administration	49,957	52,276	54,722	57,301	60,023	62,896	65,929	69,133	72,519	76,099
UTRWD-W	Upper Trinity Regional Water District- Water	-	-	-	-	-	-	-	-	-	-
UTRWD-S	Upper Trinity Regional Water District- Sewer	2,054,363	2,286,905	2,552,716	2,753,412	2,964,499	3,182,731	3,404,162	3,624,223	3,837,846	4,069,818
Total		3,164,382	3,442,607	3,770,518	4,073,256	4,415,011	4,807,977	5,092,088	5,382,040	5,664,143	5,967,805
Total Operating Expenses		3,164,382	3,442,607	3,770,518	4,073,256	4,415,011	4,807,977	5,092,088	5,382,040	5,664,143	5,967,805
Net Revenues for Transfers,Capital Outlays and Debt Service		809,145	1,374,249	2,253,667	2,626,320	3,429,154	4,310,858	5,065,722	5,644,230	6,188,149	6,878,954
Capital Outlays		117,911	117,911	117,911	117,911	117,911	117,911	117,911	117,911	117,911	117,911
Debt Service											
Debt Service -- Current		907,720	912,003	913,553	911,824	912,594	911,189	914,468	784,437	786,033	782,603
Debt Service -- Future		-	923,778	923,778	1,913,540	1,913,540	3,365,191	3,365,191	5,080,779	5,080,779	6,070,541
Total Debt Service		907,720	1,835,781	1,837,331	2,825,364	2,826,134	4,276,380	4,279,659	5,865,215	5,866,812	6,853,144
Net Revenues for Contingencies & Transfers		(216,487)	(579,443)	298,425	(316,956)	485,109	(83,434)	668,151	(338,897)	203,426	(92,101)
Total Contingencies & Transfers		167,585	172,612	177,791	183,124	188,618	194,277	200,105	206,108	212,291	218,660
Total Cost of Service		4,357,598	5,568,911	5,903,551	7,199,656	7,547,675	9,396,546	9,689,764	11,571,275	11,861,158	13,157,520
Percent of COS		-9.7%	-15.6%	2.0%	-7.5%	3.8%	-3.0%	4.6%	-4.9%	-0.1%	-2.4%
Debt Coverage		0.89	0.75	1.23	0.93	1.21	1.01	1.18	0.96	1.05	1.00
(excludes Debt, Cap Outlays, G/F Transfers)											

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

**Water Summary****Scen: 2018 11 14 Scenario 1 -- Status Quo****1 Monthly Minimum Charge****Monthly Minimum Charge**

Base 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

**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"	\$	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

**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

**2.1 Monthly Minimum Charge****Gallons**

5,000	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	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	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	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**

**Water Summary****Scen: 2018 11 14 Scenario 1 -- Status Quo****2 2**

30,000	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	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%

**3**

<b>Total Accounts</b>		<b>5,090</b>	<b>6,228</b>	<b>7,482</b>	<b>8,318</b>	<b>9,155</b>	<b>9,974</b>	<b>10,754</b>	<b>11,476</b>	<b>12,117</b>	<b>12,795</b>
New Accounts			1,138	1,253	836	837	819	781	721	641	677
Avg Annual Growth Rate			22 4%	20 1%	11 2%	10 1%	8 9%	7 8%	6 7%	5 6%	5 6%

**4**

W 1	Residential	308,850,184	377,909,858	453,961,289	504,714,730	555,499,694	605,184,143	652,546,384	696,319,686	735,244,392	776,345,014
W 2	Residential Outside	100,247,428	122,663,003	147,347,983	163,821,671	180,305,592	196,432,305	211,805,269	226,013,326	238,647,612	251,988,163
W 3	Commercial	104,120,104	127,401,620	153,040,209	170,150,296	187,271,011	204,020,718	219,987,558	234,744,488	247,866,852	261,722,764
W 4	Commercial Outside	22,390,069	27,396,544	32,909,886	36,589,253	40,270,905	43,872,775	47,306,296	50,479,638	53,301,482	56,281,068
	<b>Total System</b>	<b>535,607,785</b>	<b>655,371,026</b>	<b>787,259,368</b>	<b>875,275,950</b>	<b>963,347,202</b>	<b>1,049,509,940</b>	<b>1,131,645,508</b>	<b>1,207,557,138</b>	<b>1,275,060,338</b>	<b>1,346,337,009</b>
			22 4%	20 1%	11 2%	10 1%	8 9%	7 8%	6 7%	5 6%	5 6%

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

**Water Summary****Scen: 2018 11 14 Scenario 1 -- Status Quo**

5

**Water Revenues****Water Rate Revenue**

W 1	Residential	\$ 2,679,839	\$ 3,372,479	\$ 4,172,699	\$ 4,778,388	\$ 5,416,971	\$ 6,078,515	\$ 6,706,728	\$ 7,299,753	\$ 7,861,970	\$ 8,467,488
W 2	Residential Outside	1,355,180	1,686,714	2,078,714	2,380,450	2,698,573	3,028,134	3,349,973	3,650,925	3,932,114	4,234,960
W 3	Commercial	1,404,313	1,774,452	2,195,493	2,514,180	2,850,175	3,198,250	3,528,788	3,840,812	4,136,626	4,455,224
W 4	Commercial Outside	433,474	548,222	678,304	776,763	880,569	988,108	1,090,229	1,186,630	1,278,022	1,376,454
		5,872,806	7,381,866	9,125,209	10,449,782	11,846,288	13,293,007	14,675,719	15,978,119	17,208,732	18,534,125
	Non-Rate Revenues	1,675,083	1,675,083	1,793,131	1,366,001	1,366,534	1,347,952	1,308,744	1,248,149	1,166,286	1,203,024
	<b>Total Revenues</b>	<b>7,547,889</b>	<b>9,056,949</b>	<b>10,918,341</b>	<b>11,815,783</b>	<b>13,212,822</b>	<b>14,640,959</b>	<b>15,984,463</b>	<b>17,226,268</b>	<b>18,375,018</b>	<b>19,737,149</b>

**Water Cost of Service****Cost Center Code**

24	Utility Billing	185,273	192,418	229,926	238,882	280,402	291,455	303,029	315,153	327,859	341,181
21	Water Operations	1,842,858	1,909,728	2,037,333	2,171,918	2,251,998	2,335,529	2,422,691	2,513,673	2,608,681	2,707,929
22	Sewer Operations	-	-	-	-	-	-	-	-	-	-
UTRWD-W	Upper Trinity Regional Water District- Water	2,111,200	2,841,778	3,246,517	3,548,227	4,370,998	4,716,766	5,068,882	5,981,962	6,366,659	6,777,020
UTRWD-S	Upper Trinity Regional Water District- Sewer	-	-	-	-	-	-	-	-	-	-
	<b>Total</b>	<b>4,139,331</b>	<b>4,943,924</b>	<b>5,513,776</b>	<b>5,959,027</b>	<b>6,903,399</b>	<b>7,343,750</b>	<b>7,794,602</b>	<b>8,810,788</b>	<b>9,303,199</b>	<b>9,826,129</b>

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

**Water Summary****Scen: 2018 11 14 Scenario 1 -- Status Quo**

Budget Code																					
1	Personnel Svcs	\$	860,891	\$	891,875	\$	1,012,170	\$	1,109,018	\$	1,181,962	\$	1,225,829	\$	1,271,684	\$	1,319,641	\$	1,369,821	\$	1,422,354
2	Contractual		26,149		26,934		27,742		28,574		29,431		30,314		31,224		32,160		33,125		34,119
3	Materials & Supplies		658,400		679,152		700,607		722,791		745,735		769,467		794,020		819,428		845,725		872,947
4	Operations		164,509		170,794		177,376		184,272		191,501		199,083		207,039		215,392		224,167		233,391
5	Utilities		237,864		249,273		261,237		273,785		286,945		300,748		315,223		330,406		346,331		363,034
6	Administration		80,318		84,118		88,128		92,359		96,826		101,545		106,530		111,799		117,371		123,264
UTRWD-W Upper Trinity Regional Water District- Water			2,111,200		2,841,778		3,246,517		3,548,227		4,370,998		4,716,766		5,068,882		5,981,962		6,366,659		6,777,020
UTRWD-S Upper Trinity Regional Water District- Sewer			-		-		-		-		-		-		-		-		-		-
Total			4,139,331		4,943,924		5,513,776		5,959,027		6,903,399		7,343,750		7,794,602		8,810,788		9,303,199		9,826,129
Total Operating Expenses			4,139,331		4,943,924		5,513,776		5,959,027		6,903,399		7,343,750		7,794,602		8,810,788		9,303,199		9,826,129
Net Revenues for Transfers,Capital Outlays and Debt S			3,408,557		4,113,025		5,404,564		5,856,756		6,309,423		7,297,209		8,189,862		8,415,480		9,071,819		9,911,020
Capital Outlays			181,823		181,823		181,823		181,823		181,823		181,823		181,823		181,823		181,823		181,823
Debt Service																					
Debt Service -- Current			1,313,274		1,319,470		1,321,713		1,319,211		1,320,325		1,318,293		1,323,037		1,134,909		1,137,219		1,132,256
Debt Service -- Future			-		1,187,714		1,187,714		3,167,239		3,167,239		4,025,032		4,025,032		4,420,937		4,420,937		4,552,906
Total Debt Service			1,313,274		2,507,185		2,509,427		4,486,450		4,487,564		5,343,325		5,348,069		5,555,847		5,558,157		5,685,162
Net Revenues for Contingencies & Transfers			1,913,460		1,424,017		2,713,314		1,188,483		1,640,036		1,772,061		2,659,969		2,677,810		3,331,839		4,044,035
Total Contingencies & Transfers			359,415		370,198		381,304		392,743		404,525		416,661		429,160		442,035		455,296		468,955
Total Cost of Service			5,993,844		8,003,129		8,586,330		11,020,043		11,977,310		13,285,559		13,753,654		14,990,493		15,498,475		16,162,070
Percent of COS												20.6%	11.6%	21.4%	6.7%	9.4%	9.3%	14.0%	13.0%	15.7%	18.1%
Debt Coverage (excludes Capital Outlays, G/F Transfers)			2.60		1.64		2.15		1.31		1.41		1.37		1.53		1.51		1.63		1.74

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

**Wastewater Summary**  
**Scen: 2018 11 14 Scenario 1 -- Status Quo**

<b>1</b>												
Monthly Charge												
	3/4"	\$	20 60	\$	21 50	\$	23 44	\$	25 54	\$	27 84	\$
	1"		38 63		38 63		42 11		45 90		50 03	
	1 1/2"		72 10		72 10		78 59		85 66		93 37	
	2"		123 60		123 60		134 72		146 85		160 07	
Volume Rate/1,000 Gal (2,001 to 14,000)												
			5 73		5 84		6 37		6 94		7 56	
Monthly Charge												
	3/4"		25 75		25 75		28 07		30 59		33 35	
	1"		48 29		48 29		52 64		57 37		62 54	
	1 1/2"		90 13		90 13		98 24		107 08		116 72	
	2"		154 50		154 50		168 41		183 56		200 08	
	4"		386 25		386 25		421 01		458 90		500 20	
Volume Rate/1,000 Gal												
			5 73		5 84		6 37		6 94		7 56	
<b>2 1</b>												
5,000 Gallons	Total	\$	37 79	\$	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	Total		66 44		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%	
20,000 Gallons	Total		89 36		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%	
30,000 Gallons	Total		89 36		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%	



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

**Wastewater Summary****Scen: 2018 11 14 Scenario 1 -- Status Quo**

<b>2 2</b>												
30,000 Gallons	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	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%

<b>3</b>												
<b>Total Accounts</b>			<b>4,356</b>	<b>5,329</b>	<b>6,401</b>	<b>7,116</b>	<b>7,832</b>	<b>8,533</b>	<b>9,200</b>	<b>9,817</b>	<b>10,366</b>	<b>10,945</b>
New Accounts				973	1,072	715	716	700	668	617	549	579
Avg. Annual Growth Rate				22 35%	20 12%	11 18%	10 06%	8 94%	7 82%	6 71%	5 59%	5 59%

<b>4</b>												
WW 1	Residential	288,193,448	352,634,224	423,599,130	470,958,042	518,346,371	564,707,790	608,902,316	649,747,940	686,069,257	724,420,958	
WW 2	Residential Outside	76,000	76,000	76,000	76,000	76,000	76,000	76,000	76,000	76,000	76,000	
WW 3	Commercial	24,239,678	29,659,731	35,628,521	39,611,835	43,597,622	47,497,037	51,214,197	54,649,684	57,704,635	60,930,360	
WW 4	Commercial Outside	60,300	60,300	60,300	60,300	60,300	60,300	60,300	60,300	60,300	60,300	
WW 5	Other5	-	-	-	-	-	-	-	-	-	-	
WW 6	Other6	-	-	-	-	-	-	-	-	-	-	
WW 7	Other7	-	-	-	-	-	-	-	-	-	-	
WW 8	Other8	-	-	-	-	-	-	-	-	-	-	
WW 9	Other9	-	-	-	-	-	-	-	-	-	-	
WW 10	Other10	-	-	-	-	-	-	-	-	-	-	
<b>Total System</b>		<b>312,569,426</b>	<b>382,430,254</b>	<b>459,363,951</b>	<b>510,706,177</b>	<b>562,080,293</b>	<b>612,341,127</b>	<b>660,252,813</b>	<b>704,533,924</b>	<b>743,910,192</b>	<b>785,487,618</b>	

<b>5</b>												
<b>Wastewater Revenues</b>												
<b>Wastewater Rate Revenue</b>												
WW 1	Residential	\$ 2,535,534	\$ 3,308,742	\$ 4,332,315	\$ 5,250,174	\$ 6,298,513	\$ 7,479,426	\$ 8,458,881	\$ 9,297,098	\$ 10,111,316	\$ 10,996,841	
WW 2	Residential Outside	978	1,121	1,222	1,332	1,452	1,583	1,660	1,710	1,761	1,814	
WW 5	Commercial	231,918	301,788	395,147	478,864	574,482	682,192	771,528	847,981	922,245	1,003,013	
WW 6	Commercial Outside	880	988	1,077	1,173	1,279	1,394	1,462	1,506	1,551	1,598	
Sub-Total		2,769,309	3,612,639	4,729,761	5,731,544	6,875,726	8,164,595	9,233,531	10,148,295	11,036,873	12,003,266	
Non-Rate Revenues		1,204,217	1,204,217	1,294,424	968,032	968,439	954,240	924,279	877,975	815,419	843,493	
<b>Total Revenues</b>		<b>3,973,526</b>	<b>4,816,856</b>	<b>6,024,185</b>	<b>6,699,576</b>	<b>7,844,165</b>	<b>9,118,835</b>	<b>10,157,810</b>	<b>11,026,270</b>	<b>11,852,293</b>	<b>12,846,759</b>	

**Wastewater Cost of Service****Cost Center Code**

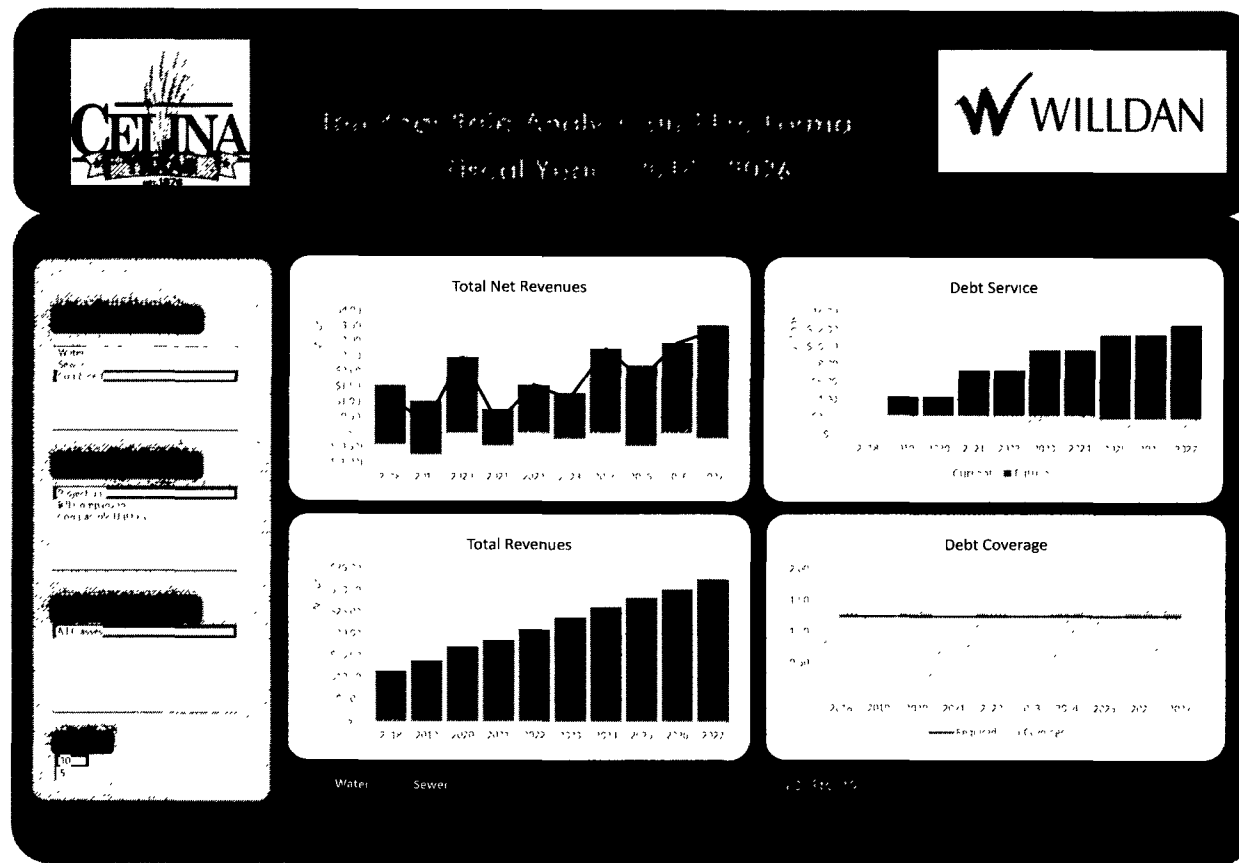
24	Utility Billing	106,985	111,110	132,769	137,940	161,916	168,298	174,981	181,982	189,319	197,012	
21	Water Operations	-	-	-	-	-	-	-	-	-	-	
22	Sewer Operations	1,048,360	1,101,408	1,154,983	1,261,771	1,378,894	1,558,028	1,624,966	1,698,729	1,770,428	1,845,887	
UTRWD-W	Upper Trinity Regional Water District- Water	-	-	-	-	-	-	-	-	-	-	
UTRWD-S	Upper Trinity Regional Water District- Sewer	2,009,037	2,230,089	2,482,766	2,673,545	2,874,202	3,081,651	3,292,141	3,501,329	3,704,396	3,924,906	
<b>Total</b>		<b>3,164,382</b>	<b>3,442,607</b>	<b>3,770,518</b>	<b>4,073,256</b>	<b>4,415,011</b>	<b>4,807,977</b>	<b>5,092,088</b>	<b>5,282,040</b>	<b>5,664,143</b>	<b>5,967,805</b>	

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

**Wastewater Summary****Scen: 2018 11 14 Scenario 1 -- Status Quo**

<u>Budget Code</u>											
1	Personnel Svcs	491,035	509,213	545,559	621,764	721,443	868,027	901,454	936,476	973,186	1,011,687
2	Contractual	200,051	206,052	212,234	218,601	225,159	231,914	238,871	246,037	253,418	261,021
3	Materials & Supplies	71,000	74,130	77,434	80,923	84,611	88,510	92,634	97,000	101,624	106,524
4	Operations	215,991	228,243	238,083	247,312	260,963	271,006	281,343	296,447	307,556	319,140
5	Utilities	81,985	85,787	89,770	93,942	98,314	102,895	107,695	112,724	117,994	123,517
6	Administration	49,957	52,276	54,722	57,301	60,023	62,896	65,929	69,133	72,519	76,099
UTRWD-W	Upper Trinity Regional Water District- Water	-	-	-	-	-	-	-	-	-	-
UTRWD-S	Upper Trinity Regional Water District- Sewer	2,054,363	2,286,905	2,552,716	2,753,412	2,964,499	3,182,731	3,404,162	3,624,223	3,837,846	4,069,818
<b>Total</b>		<b>3,164,382</b>	<b>3,442,607</b>	<b>3,770,518</b>	<b>4,073,256</b>	<b>4,415,011</b>	<b>4,807,977</b>	<b>5,092,088</b>	<b>5,382,040</b>	<b>5,664,143</b>	<b>5,967,805</b>
<b>Total Operating Expenses</b>		<b>3,164,382</b>	<b>3,442,607</b>	<b>3,770,518</b>	<b>4,073,256</b>	<b>4,415,011</b>	<b>4,807,977</b>	<b>5,092,088</b>	<b>5,382,040</b>	<b>5,664,143</b>	<b>5,967,805</b>
<b>Net Revenues for Transfers,Capital Outlays and Debt Service</b>		<b>809,145</b>	<b>1,374,249</b>	<b>2,253,667</b>	<b>2,626,320</b>	<b>3,429,154</b>	<b>4,310,858</b>	<b>5,065,722</b>	<b>5,644,230</b>	<b>6,188,149</b>	<b>6,878,954</b>
<b>Capital Outlays</b>		<b>117,911</b>	<b>117,911</b>	<b>117,911</b>	<b>117,911</b>	<b>117,911</b>	<b>117,911</b>	<b>117,911</b>	<b>117,911</b>	<b>117,911</b>	<b>117,911</b>
<u>Debt Service</u>											
Debt Service -- Current		907,720	912,003	913,553	911,824	912,594	911,189	914,468	784,437	786,033	782,603
Debt Service -- Future		-	923,778	923,778	1,913,540	1,913,540	3,365,191	3,365,191	5,080,779	5,080,779	6,070,541
<b>Total Debt Service</b>		<b>907,720</b>	<b>1,835,781</b>	<b>1,837,331</b>	<b>2,825,364</b>	<b>2,826,134</b>	<b>4,276,380</b>	<b>4,279,659</b>	<b>5,865,215</b>	<b>5,866,812</b>	<b>6,853,144</b>
<b>Net Revenues for Contingencies &amp; Transfers</b>		<b>(216,487)</b>	<b>(579,443)</b>	<b>298,425</b>	<b>(316,956)</b>	<b>485,109</b>	<b>(83,434)</b>	<b>668,151</b>	<b>(338,897)</b>	<b>203,426</b>	<b>(92,101)</b>
<b>Total Contingencies &amp; Transfers</b>		<b>167,585</b>	<b>172,612</b>	<b>177,791</b>	<b>183,124</b>	<b>188,618</b>	<b>194,277</b>	<b>200,105</b>	<b>206,108</b>	<b>212,291</b>	<b>218,660</b>
<b>Total Cost of Service</b>		<b>4,357,598</b>	<b>5,568,911</b>	<b>5,903,551</b>	<b>7,199,656</b>	<b>7,547,675</b>	<b>9,396,546</b>	<b>9,689,764</b>	<b>11,571,275</b>	<b>11,861,158</b>	<b>13,157,520</b>
<b>Percent of COS</b>		<b>-9.7%</b>	<b>-15.6%</b>	<b>2.0%</b>	<b>-7.5%</b>	<b>3.8%</b>	<b>-3.0%</b>	<b>4.6%</b>	<b>-4.9%</b>	<b>-0.1%</b>	<b>-2.4%</b>
<b>Debt Coverage</b>		<b>0.89</b>	<b>0.75</b>	<b>1.23</b>	<b>0.93</b>	<b>1.21</b>	<b>1.01</b>	<b>1.18</b>	<b>0.96</b>	<b>1.05</b>	<b>1.00</b>
(excludes Debt, Cap Outlays, GIF Transfers)											





#### Future Debt Term

Alternative	Proposed
1	\$ 18,000,000
2	\$ -
3	\$ 30,000,000
4	\$ -
5	\$ 13,000,000
6	\$ -
7	\$ 6,000,000
8	\$ -
9	\$ 2,000,000
10	\$ -

Alternative	Proposed
1	\$ 14,000,000
2	\$ -
3	\$ 15,000,000
4	\$ -
5	\$ 22,000,000
6	\$ -
7	\$ 26,000,000
8	\$ -
9	\$ 15,000,000
10	\$ -

		2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
<b>Water Rate Adjustments</b>											
Meter Charge		0.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
Volume Charge		0.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
		42	41	102	87	111	114	153	160	195	224
<b>Sewer Rate Adjustments</b>											
Base Charge											
Volume Charge	Residential										
	Non-Residential										

CITY OF CELINA WATER/WASTEWATER COST OF SERVICE MODEL				
	Current	Effective Jan-18	Effective Jan-19	Effective Jan-20

**City Rate Plan -- Three Year Summary****Scen: 2018 11 14 Scenario 2 -- WW Inverted Block**1 **Water/Wastewater Rates****Water/Wastewater Rates****Water/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

**Water/Wastewater Rates****Monthly Minimum Charge**

3/4"	\$	34.72	\$	35.77	\$	36.84	\$	37.94
1"		58.40		58.40		60.15		61.95
1 1/2"		116.81		116.81		120.31		123.92
2"		186.89		186.89		192.49		198.27

**Volume Rate/1,000 Gal**

2,001	10,000	\$	7.59	\$	7.59	\$	7.82	\$	8.05
10,001	20,000		11.49		11.49		11.83		12.19
20,001	30,000		13.53		13.53		13.94		14.35
30,001	Above		19.53		19.53		20.12		20.72

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: 2018 11 14 Scenario 2 -- WW Inverted Block

**WW Inverted Block****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

**WW Conventional Sewer****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 83		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				
WATERWASTEWATER COST OF SERVICE MODEL				
	Current	Effective Jan 18	Effective Jan 20	Effective Jan 21

**City Rate Plan -- Three Year Summary****Scen: 2018 11 14 Scenario 2 -- WW Inverted Block**

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	5,000	5 84	5 84	6 37	6 94
5,001	Maximum	5 84	7 23	7 88	8 59
	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	5,000	12 90	12 90	14 06	15 33
5,001	Maximum	12 90	15 97	17 41	18 97
	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: 2018 11 14 Scenario 2 -- WW Inverted Block****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
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**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	12 90	14 06	15 33	16 71
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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: 2018 11 14 Scenario 2 -- WW Inverted Block**3 **5,000 Gallons -- 3/4" Meter****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: 2018 11 14 Scenario 2 -- WW Inverted Block****3 Residential Water Charges - WATER**

<b>5,000 3/4" Meter</b>				
Total	\$ 57 49	\$ 58 54	\$ 60 29	\$ 62 10
Dollar Inc	1 79	1 05	1 76	1 81
Percent Inc	3 2%	1 8%	3 0%	3 0%
<b>10,000 3/4" Meter</b>				
Total	95 44	96 49	99 38	102 36
Dollar Inc	2 54	1 05	2 89	2 98
Percent Inc	2 7%	1 1%	3 0%	3 0%
<b>20,000 3/4" Meter</b>				
Total	210 34	211 39	217 73	224 26
Dollar Inc	5 84	1 05	6 34	6 53
Percent Inc	2 9%	0 5%	3 0%	3 0%

**4 Commercial Water Charges - WATER**

<b>30,000 Gallons -- 1 1/2" Meter</b>				
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%
<b>60,000 Gallons -- 1 1/2" Meter</b>				
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-18	Effective Jan-19	Effective Jan-21

**City Rate Plan -- Three Year Summary****Scen: 2018 11 14 Scenario 2 -- WW Inverted Block**

5

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

Total	\$	39.02	\$	40.96	\$	44.64	\$	48.66
Dollar Inc		1.23		1.94		3.69		4.02
Percent Inc		3.3%		5.0%		9.0%		9.0%

**10,000 Gallons -- 3/4" Meter**

Total		68.22		77.11		84.04		91.61
Dollar Inc		1.78		8.89		6.94		7.56
Percent Inc		2.7%		13.0%		9.0%		9.0%

**15,000 Gallons -- 3/4" Meter**

Total		91.58		106.03		115.57		125.97
Dollar Inc		2.22		14.45		9.54		10.40
Percent Inc		2.5%		15.8%		9.0%		9.0%

**20,000 Gallons -- 3/4" Meter**

Total		91.58		106.03		115.57		125.97
Dollar Inc		2.22		14.45		9.54		10.40
Percent Inc		2.5%		15.8%		9.0%		9.0%

6

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

Total	1 1/2"	\$	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	1 1/2"		640.65		698.31		761.16		829.66
Dollar Inc			132.08		57.66		62.85		68.50
Percent Inc			26.0%		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: 2018 11 14 Scenario 2 -- WW Inverted Block****5 5,000 Gallons Water, 5,000 Gallons WW -- 3/4" Meter**

Total	\$ 77.35	\$ 80.43	\$ 85.31	\$ 90.54
Dollar Inc	2.43	3.08	4.87	5.24
Percent Inc	3.2%	4.0%	6.1%	6.1%

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

Total	131.85	142.64	151.55	161.14
Dollar Inc	3.48	10.79	8.91	9.59
Percent Inc	2.7%	8.2%	6.2%	6.3%

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

Total	231.81	250.46	264.34	279.20
Dollar Inc	6.12	18.65	13.88	14.86
Percent Inc	2.7%	8.0%	5.5%	5.6%

**30,000 Gallons Water, 14,000 Gallons WW -- 3/4" Meter**

Total	322.01	343.37	360.03	377.77
Dollar Inc	9.52	21.36	16.66	17.73
Percent Inc	3.0%	6.6%	4.9%	4.9%

**6 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	1,335.87	1,414.39	1,498.72	1,589.35
Dollar Inc	157.08	78.52	84.33	90.63
Percent Inc	13.3%	5.9%	6.0%	6.0%

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

**City Rate Plan -- 10 Year Summary**  
**Scen: 2018 11 14 Scenario 2 -- WW Inverted Block**

1

**Monthly Minimum Charge**

	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	Effective Jan-28
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**

	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	Effective Jan-28
3/4"	\$ 33 38	\$ 34 72	\$ 35 77	\$ 36 84	\$ 37 94	\$ 39 08	\$ 40 26	\$ 41 06	\$ 41 88	\$ 42 72	\$ 43 57	
1"	58 40	58 40	58 40	60 15	61 95	63 81	65 72	67 70	69 05	70 43	71 84	
1 1/2"	116 81	116 81	116 81	120 31	123 92	127 64	131 47	135 41	138 12	140 88	143 70	
2"	186 89	186 89	186 89	192 49	198 27	204 21	210 34	216 65	220 98	225 40	229 91	
3"	-	-	-	-	-	-	-	-	-	-	-	
4"	-	-	-	-	-	-	-	-	-	-	-	
6"	-	-	-	-	-	-	-	-	-	-	-	
8"	-	-	-	-	-	-	-	-	-	-	-	

**Volume Rate/1,000 Gal**

2,001	10,000	7 44	7 59	7 59	7 82	8 05	8 29	8 54	8 80	8 97	9 15	9 34
10,001	20,000	11 16	11 49	11 49	11 83	12 19	12 56	12 93	13 32	13 59	13 86	14 14
20,001	30,000	13 02	13 53	13 53	13 94	14 35	14 78	15 23	15 68	16 00	16 32	16 65
30,001	Above	18 60	19 53	19 53	20 12	20 72	21 34	21 98	22 64	23 09	23 56	24 03
-	-	-	-	-	-	-	-	-	-	-	-	-

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

**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 83	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	Effective Jan-28
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**City Rate Plan -- 10 Year Summary**  
**Scen: 2018 11 14 Scenario 2 -- WW Inverted Block**

2

**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	5,000	5 73	5 84	5 84	6 37	6 94	7 56	8 24	8 49	8 75	9 01	9 28
5,001	14,000	5 73	5 84	7 23	7 88	8 59	9 36	10 21	10 51	10 83	11 15	11 49

**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	5,000	8 60	12 90	12 90	14 06	15 33	16 71	18 21	18 76	19 32	19 90	20 49
5,001	14,000	8 60	12 90	15 97	17 41	18 97	20 68	22 54	23 22	23 92	24 63	25 37

<b>CITY OF CELINA</b> <b>WATER/WASTEWATER COST OF SERVICE MODEL</b>
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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: 2018 11 14 Scenario 2 -- WW Inverted Block****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	12 90	14 06	15 33	16 71	18 21	19 85	20 44	21 06	21 69	22 34
-	-	-	-	-	-	-	-	-	-	-	-	-



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

3

**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%

<b>CITY OF CELINA</b> <b>WATER/WASTEWATER COST OF SERVICE MODEL</b>
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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: 2018 11 14 Scenario 2 -- WW Inverted Block**

3

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

Total	\$ 55.70	\$ 57.49	\$ 58.54	\$ 60.29	\$ 62.10	\$ 63.96	\$ 65.88	\$ 67.46	\$ 68.81	\$ 70.18	\$ 71.59
Dollar Inc		1.79	1.05	1.76	1.81	1.86	1.92	1.57	1.35	1.38	1.40
Percent Inc		3.2%	1.8%	3.0%	3.0%	3.0%	3.0%	2.4%	2.0%	2.0%	2.0%

**10,000 Gallons -- 3/4" Meter**

Total	92.90	95.44	96.49	99.38	102.36	105.43	108.60	111.45	113.68	115.95	118.27
Dollar Inc		2.54	1.05	2.89	2.98	3.07	3.16	2.86	2.23	2.27	2.32
Percent Inc		2.7%	1.1%	3.0%	3.0%	3.0%	3.0%	2.6%	2.0%	2.0%	2.0%

**20,000 Gallons -- 3/4" Meter**

Total	204.50	210.34	211.39	217.73	224.26	230.99	237.92	244.65	249.55	254.54	259.63
Dollar Inc		5.84	1.05	6.34	6.53	6.73	6.93	6.73	4.89	4.99	5.09
Percent Inc		2.9%	0.5%	3.0%	3.0%	3.0%	3.0%	2.8%	2.0%	2.0%	2.0%

4

**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**

**City Rate Plan -- 10 Year Summary**  
**Scen: 2018 11 14 Scenario 2 -- WW Inverted Block**

	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
<b>5 5,000 Gallons -- 3/4" Meter</b>											
Total	\$ 37 79	\$ 39 02	\$ 40 96	\$ 44 64	\$ 48 66	\$ 53 04	\$ 57 81	\$ 59 55	\$ 61 33	\$ 63 17	\$ 65 07
Dollar Inc		1 23	1 94	3 69	4 02	4 38	4 77	1 73	1 79	1 84	1 90
Percent Inc		3 3%	5 0%	9 0%	9 0%	9 0%	9 0%	3 0%	3 0%	3 0%	3 0%
<b>10,000 Gallons -- 3/4" Meter</b>											
Total	66 44	68 22	77 11	84 04	91 61	99 85	108 84	112 11	115 47	118 93	122 50
Dollar Inc		1 78	8 89	6 94	7 56	8 24	8 99	3 27	3 36	3 46	3 57
Percent Inc		2 7%	13 0%	9 0%	9 0%	9 0%	9 0%	3 0%	3 0%	3 0%	3 0%
<b>20,000 Gallons -- 3/4" Meter</b>											
Total	89 36	91 58	106 03	115 57	125 97	137 31	149 66	154 15	158 78	163 54	168 45
Dollar Inc		2 22	14 45	9 54	10 40	11 34	12 36	4 49	4 62	4 76	4 91
Percent Inc		2 5%	15 8%	9 0%	9 0%	9 0%	9 0%	3 0%	3 0%	3 0%	3 0%
<b>30,000 Gallons -- 3/4" Meter</b>											
Total	89 36	91 58	106 03	115 57	125 97	137 31	149 66	154 15	158 78	163 54	168 45
Dollar Inc		2 22	14 45	9 54	10 40	11 34	12 36	4 49	4 62	4 76	4 91
Percent Inc		2 5%	15 8%	9 0%	9 0%	9 0%	9 0%	3 0%	3 0%	3 0%	3 0%
<b>6 30,000 Gallons -- 1 1/2" Meter</b>											
Total 1 1/2"	\$ 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%
<b>60,000 Gallons -- 1 1/2" Meter</b>											
Total 1 1/2"	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	Effective Jan-19	Effective Jan-20	Effective Jan-21	

**City Rate Plan -- Three Year Summary**

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

**1 Water Service Charges****City Water Service Charges****Rate Schedule****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

**2 Wastewater Service Charges****Monthly Minimum Charge**

3/4"	\$	34 72	\$	35 77	\$	36 84	\$	37 94
1"		58 40		58 40		60 15		61 95
1 1/2"		116 81		116 81		120 31		123 92
2"		186 89		186 89		192 49		198 27

**Volume Rate/1,000 Gal**

2,001	10,000	\$	7 59	\$	7 59	\$	7 82	\$	8 05
10,001	20,000		11 49		11 49		11 83		12 19
20,001	30,000		13 53		13 53		13 94		14 35
30,001	Above		19 53		19 53		20 12		20 72

CITY OF CELINA				
WATER/WASTEWATER COST OF SERVICE MODEL				
Current	Effective Jan-18	Effective Jan-19	Effective Jan-20	Effective Jan-21

**City Rate Plan -- Three Year Summary****Scen: 2018 11 14 Scenario 2 -- WW Inverted Block****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

**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 83		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: 2018 11 14 Scenario 2 -- WW Inverted Block

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	5,000	5 84	5 84	6 37	6 94
5,001	Maximum	5 84	7 23	7 88	8 59
	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	5,000	12 90	12 90	14 06	15 33
5,001	Maximum	12 90	15 97	17 41	18 97
	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: 2018 11 14 Scenario 2 -- WW Inverted Block****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
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**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	12 90	14 06	15 33	16 71
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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: 2018 11 14 Scenario 2 -- WW Inverted Block****3 WATER/WASTEWATER CHARGES -- 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: 2018 11 14 Scenario 2 -- WW Inverted Block****3 5,000 Gallons -- 3/4" Meter**

<b>5,000 3/4" Meter</b>				
Total	\$ 57 49	\$ 58 54	\$ 60 29	\$ 62 10
Dollar Inc	1 79	1 05	1 76	1 81
Percent Inc	3 2%	1 8%	3 0%	3 0%

**10,000 3/4" Meter**

<b>10,000 3/4" Meter</b>				
Total	95 44	96 49	99 38	102 36
Dollar Inc	2 54	1 05	2 89	2 98
Percent Inc	2 7%	1 1%	3 0%	3 0%

**20,000 3/4" Meter**

<b>20,000 3/4" Meter</b>				
Total	210 34	211 39	217 73	224 26
Dollar Inc	5 84	1 05	6 34	6 53
Percent Inc	2 9%	0 5%	3 0%	3 0%

**4 30,000 Gallons -- 1 1/2" Meter**

<b>30,000 Gallons -- 1 1/2" Meter</b>				
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**

<b>60,000 Gallons -- 1 1/2" Meter</b>				
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: 2018 11 14 Scenario 2 -- WW Inverted Block**

5

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

Total	\$	39 02	\$	40 96	\$	44 64	\$	48 66
Dollar Inc		1 23		1 94		3 69		4 02
Percent Inc		3 3%		5 0%		9 0%		9 0%

**10,000 Gallons -- 3/4" Meter**

Total		68 22		77 11		84 04		91 61
Dollar Inc		1 78		8 89		6 94		7 56
Percent Inc		2 7%		13 0%		9 0%		9 0%

**15,000 Gallons -- 3/4" Meter**

Total		91 58		106 03		115 57		125 97
Dollar Inc		2 22		14 45		9 54		10 40
Percent Inc		2 5%		15 8%		9 0%		9 0%

**20,000 Gallons -- 3/4" Meter**

Total		91 58		106 03		115 57		125 97
Dollar Inc		2 22		14 45		9 54		10 40
Percent Inc		2 5%		15 8%		9 0%		9 0%

6

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

Total	1 1/2"	\$	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	1 1/2"		640 65		698 31		761 16		829 66
Dollar Inc			132 08		57 66		62 85		68 50
Percent Inc			26 0%		9 0%		9 0%		9 0%

CITY OF CELINA WATER/WASTEWATER COST OF SERVICE MODEL				
	Current	Effective Jan 18	Effective Jan 20	Effective Jan 21

**City Rate Plan -- Three Year Summary****Scen: 2018 11 14 Scenario 2 -- WW Inverted Block****5****5,000 Gallons Water, 5,000 Gallons WW -- 3/4" Meter**

Total	\$	77 35	\$	80 43	\$	85 31	\$	90 54
Dollar Inc		2 43		3 08		4 87		5 24
Percent Inc		3 2%		4 0%		6 1%		6 1%

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

Total		131 85		142 64		151 55		161 14
Dollar Inc		3 48		10 79		8 91		9 59
Percent Inc		2 7%		8 2%		6 2%		6 3%

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

Total		231 81		250 46		264 34		279 20
Dollar Inc		6 12		18 65		13 88		14 86
Percent Inc		2 7%		8 0%		5 5%		5 6%

**30,000 Gallons Water, 14,000 Gallons WW -- 3/4" Meter**

Total		322 01		343 37		360 03		377 77
Dollar Inc		9 52		21 36		16 66		17 73
Percent Inc		3 0%		6 6%		4 9%		4 9%

**6****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		1,335 87		1,414 39		1,498 72		1,589 35
Dollar Inc		157 08		78 52		84 33		90 63
Percent Inc		13 3%		5 9%		6 0%		6 0%

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

1 [REDACTED] *Sergeant Mainwaring* b6

~~CONFIDENTIAL~~

~~TOP SECRET~~

[illegible]

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

~~CONFIDENTIAL~~

[illegible]

2,001	10,000	7 44	7 59	7 59	7 82	8 05	8 29	8 54	8 80	8 97	9 15	9 34
10,001	20,000	11 16	11 49	11 49	11 83	12 19	12 56	12 93	13 32	13 59	13 86	14 14
20,001	30,000	13 02	13 53	13 53	13 94	14 35	14 78	15 23	15 68	16 00	16 32	16 65
30,001	Above	18 60	19 53	19 53	20 12	20 72	21 34	21 98	22 64	23 09	23 56	24 03

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

**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 83	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

**City Rate Plan -- 10 Year Summary****Scen: 2018 11 14 Scenario 2 -- WW Inverted Block**

2

**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	5,000	5 73	5 84	5 84	6 37	6 94	7 56	8 24	8 49	8 75	9 01	9 28
5,001	14,000	5 73	5 84	7 23	7 88	8 59	9 36	10 21	10 51	10 83	11 15	11 49

**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	5,000	8 60	12 90	12 90	14 06	15 33	16 71	18 21	18 76	19 32	19 90	20 49
5,001	14,000	8 60	12 90	15 97	17 41	18 97	20 68	22 54	23 22	23 92	24 63	25 37

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

**City Rate Plan -- 10 Year Summary**  
**Scen: 2018 11 14 Scenario 2 -- WW Inverted Block**

**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	12 90	14 06	15 33	16 71	18 21	19 85	20 44	21 06	21 69	22 34
-	-	-	-	-	-	-	-	-	-	-	-	-

<b>CITY OF CELINA</b> <b>WATER/WASTEWATER COST OF SERVICE MODEL</b>
--

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: 2018 11 14 Scenario 2 -- WW Inverted Block****3 2018 11 14 Scenario 2 -- 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

**City Rate Plan -- 10 Year Summary**  
**Scen: 2018 11 14 Scenario 2 -- WW Inverted Block**

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

Total	\$ 55.70	\$ 57.49	\$ 58.54	\$ 60.29	\$ 62.10	\$ 63.96	\$ 65.88	\$ 67.46	\$ 68.81	\$ 70.18	\$ 71.59
Dollar Inc		1.79	1.05	1.76	1.81	1.86	1.92	1.57	1.35	1.38	1.40
Percent Inc		3.2%	1.8%	3.0%	3.0%	3.0%	3.0%	2.4%	2.0%	2.0%	2.0%

**10,000 Gallons -- 3/4" Meter**

Total	92.90	95.44	96.49	99.38	102.36	105.43	108.60	111.45	113.68	115.95	118.27
Dollar Inc		2.54	1.05	2.89	2.98	3.07	3.16	2.86	2.23	2.27	2.32
Percent Inc		2.7%	1.1%	3.0%	3.0%	3.0%	3.0%	2.6%	2.0%	2.0%	2.0%

**20,000 Gallons -- 3/4" Meter**

Total	204.50	210.34	211.39	217.73	224.26	230.99	237.92	244.65	249.55	254.54	259.63
Dollar Inc		5.84	1.05	6.34	6.53	6.73	6.93	6.73	4.89	4.99	5.09
Percent Inc		2.9%	0.5%	3.0%	3.0%	3.0%	3.0%	2.8%	2.0%	2.0%	2.0%

4 **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

**City Rate Plan -- 10 Year Summary****Scen: 2018 11 14 Scenario 2 -- WW Inverted Block****5****5,000 Gallons -- 3/4" Meter**

Total	\$	37.79	\$	39.02	\$	40.96	\$	44.64	\$	48.66	\$	53.04	\$	57.81	\$	59.55	\$	61.33	\$	63.17	\$	65.07
Dollar Inc				1.23		1.94		3.69		4.02		4.38		4.77		1.73		1.79		1.84		1.90
Percent Inc				3.3%		5.0%		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	77.11	84.04	91.61	99.85	108.84	112.11	115.47	118.93	122.50
Dollar Inc		1.78	8.89	6.94	7.56	8.24	8.99	3.27	3.36	3.46	3.57
Percent Inc		2.7%	13.0%	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	106.03	115.57	125.97	137.31	149.66	154.15	158.78	163.54	168.45
Dollar Inc		2.22	14.45	9.54	10.40	11.34	12.36	4.49	4.62	4.76	4.91
Percent Inc		2.5%	15.8%	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	106.03	115.57	125.97	137.31	149.66	154.15	158.78	163.54	168.45
Dollar Inc		2.22	14.45	9.54	10.40	11.34	12.36	4.49	4.62	4.76	4.91
Percent Inc		2.5%	15.8%	9.0%	9.0%	9.0%	9.0%	3.0%	3.0%	3.0%	3.0%

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

Total	1 1/2"	\$	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	1 1/2"	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%



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**CITY OF CELINA**

**| TEXAS**

**2018**

**Water and Wastewater Rate Study  
and Financial Forecast**



# CITY OF CELINA WATER AND WASTEWATER RATE STUDY TABLE OF CONTENTS

<b>Executive Summary .....</b>	<b>3</b>
<b>Introduction and Demographic Profile.....</b>	<b>14</b>
Background .....	14
Report Organization .....	15
City Overview .....	15
Water and Wastewater Current Rates .....	16
Water and Wastewater Rate Comparison .....	17
<b>Water &amp; Wastewater Test Year and Forecast Volumes.....</b>	<b>19</b>
Population – Current and Projected .....	19
Water and Wastewater Customers and Meters – Test Year & Ten-Year Forecast .....	20
Historical and Forecast Water Consumption .....	24
Peaking Factors .....	26
Historical and Forecast Wastewater Flows .....	28
<b>Water &amp; Wastewater Forecast Revenue Requirement .....</b>	<b>30</b>
Operating Expenses and Capital Outlays – Test Year.....	30
Operating Expenses and Capital Outlays – Ten Year Forecast.....	33
Upper Trinity Regional Water District (UTRWD) .....	35
Capital Improvement Plan .....	37
Non-Rate Revenues .....	38
Net Revenue Requirement.....	39
Water Utility Cost Functionalization.....	40
Water Utility Cost Classification .....	42
Water Utility Cost Allocation .....	43
Wastewater Utility Cost Functionalization and Classification.....	44
Wastewater Utility Cost Allocation.....	44
<b>Water and Wastewater Rate Design .....</b>	<b>46</b>

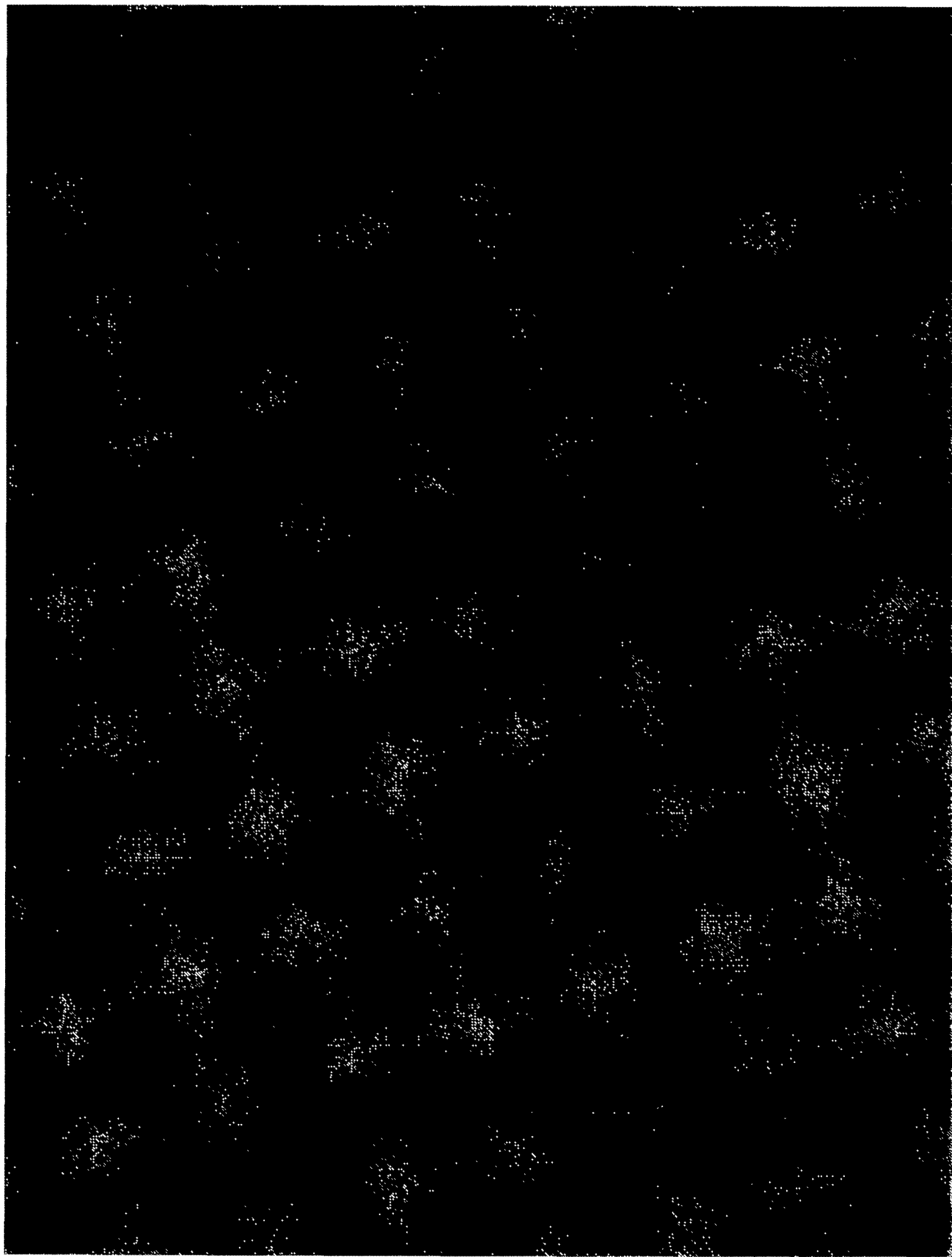
## Appendix A – Water and Wastewater Rate Model Summary – Alternative 1

## 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	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
<b>Sample Average</b>		<b>38.01</b>		<b>38.08</b>	<b>76.10</b>
<b>2018 State Average*</b>		<b>38.21</b>		<b>35.99</b>	<b>74.21</b>
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					
FORECAST TOTAL CUSTOMERS					
WASTEWATER Customer Classes					
	Residential	Residential Outside	Commercial	Commercial Outside	Total
[REDACTED]					
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

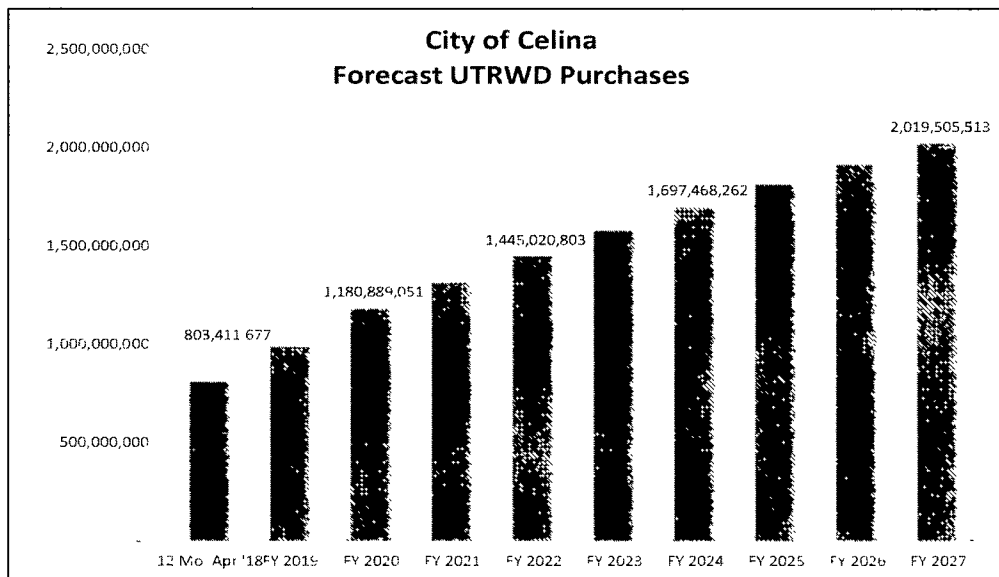
Table ES-4 presents consumption by rate classification for the City for the past three fiscal years and the forecast growth over the next ten years.

TABLE ES-4

CITY OF CELINA					
FORECAST BILLED CONSUMPTION					
	Residential	Residential Outside	Commercial	Commercial Outside	Total
FY 2015	206,962,846	47,836,504	71,571,984	10,199,400	332,570,728
FY 2016	226,356,251	69,370,321	86,881,726	10,076,400	392,684,702
FY 2017	258,818,532	95,140,618	107,657,502	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							
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
<b>WASTEWATER Revenue Requirement</b>							
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
<b>TOTAL Revenue Requirement</b>							
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 1<sup>st</sup> 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				
		Jan-18	Jan-19	Jan-20	Jan-21	
<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	
<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	
<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 14,000)		5.84	6.37	6.94	7.56	
Residential Usage Cap (gallons)		14,000	13,000	12,000	11,000	
<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-8

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

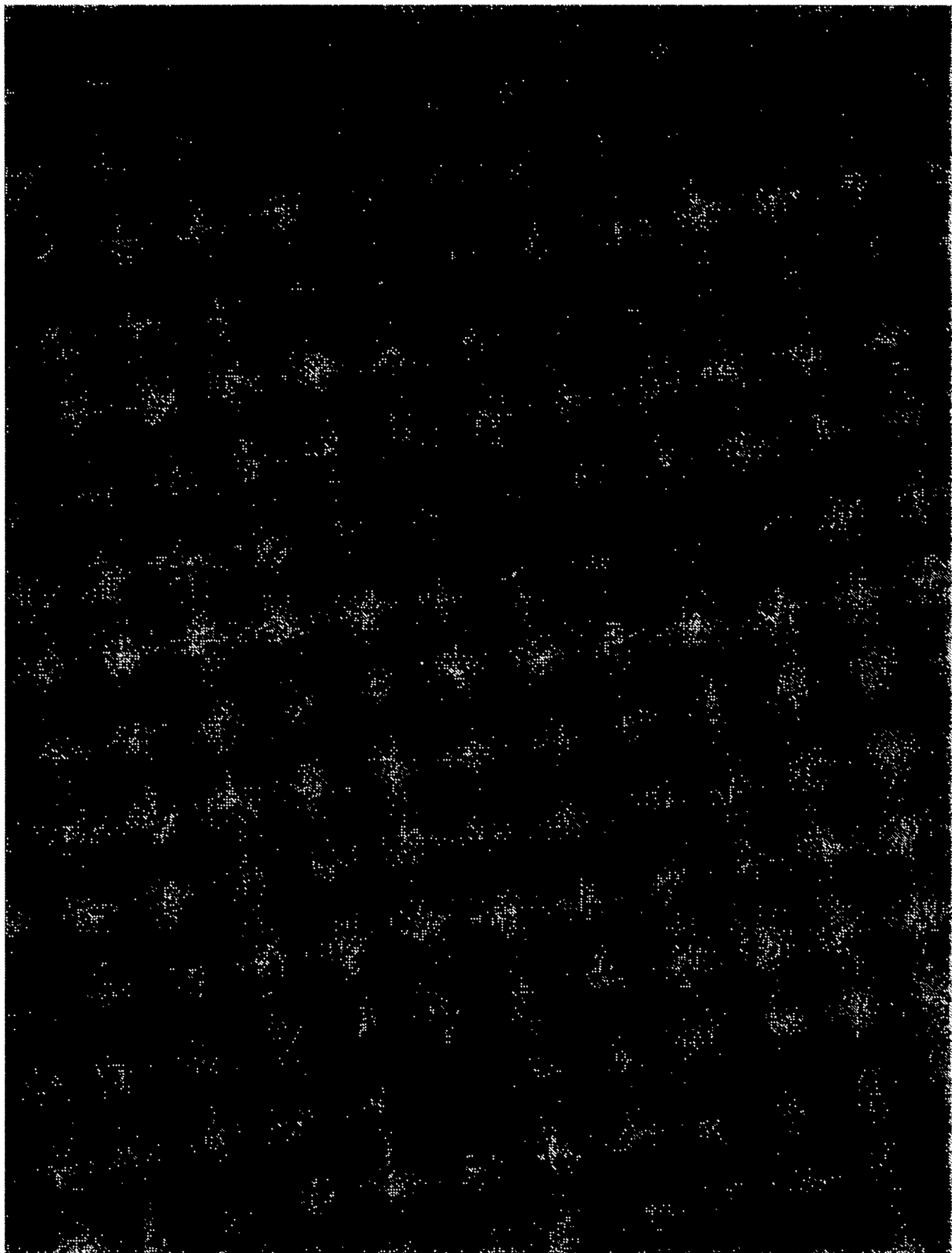


TABLE ES-9

CITY OF CELINA		PROPOSED WATER AND WASTEWATER RATE PLAN			
		Scenario: 2018 11 14 Scenario 2 -- WW Inverted Block			
		Effective			
		Jan-18	Jan-19	Jan-20	Jan-21
<b>Minimum Charge -- 1st 2,000 Gal</b>					
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
<b>Volume Rate Per 1,000 Gal</b>					
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
<b>Minimum Charge -- 1st 2,000 Gal</b>					
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
<b>Volume Rate Per 1,000 Gal</b>					
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
<b>Minimum Charge -- 1st 2,000 Gal</b>					
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
<b>Minimum Charge -- 1st 2,000 Gal</b>					
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

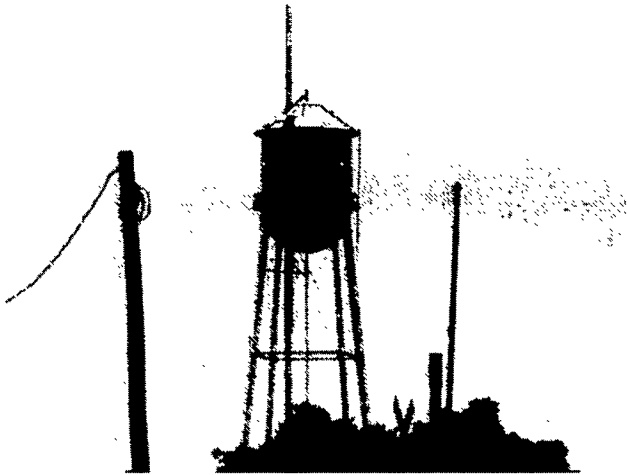
CITY OF CELINA		IMPACT OF RATE PLAN ON MONTHLY CHARGES			
		Scenario: Effective Jan-18	2018 11 14 Scenario 2 -- WW Inverted Block Jan-19	Jan-20	Jan-21
<b>Residential Monthly Charges -- 3/4"</b>					
5,000 Water	5,000 WW	\$ 77.35	\$ 80.43	\$ 85.31	\$ 90.54
	Increase -- \$		<b>3.08</b>	<b>4.87</b>	<b>5.24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

**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



WILLDAN

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

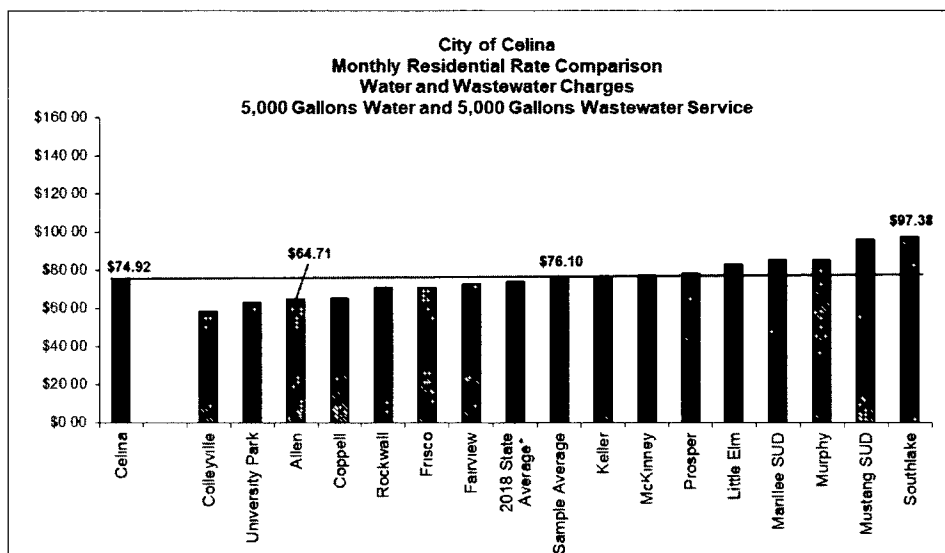
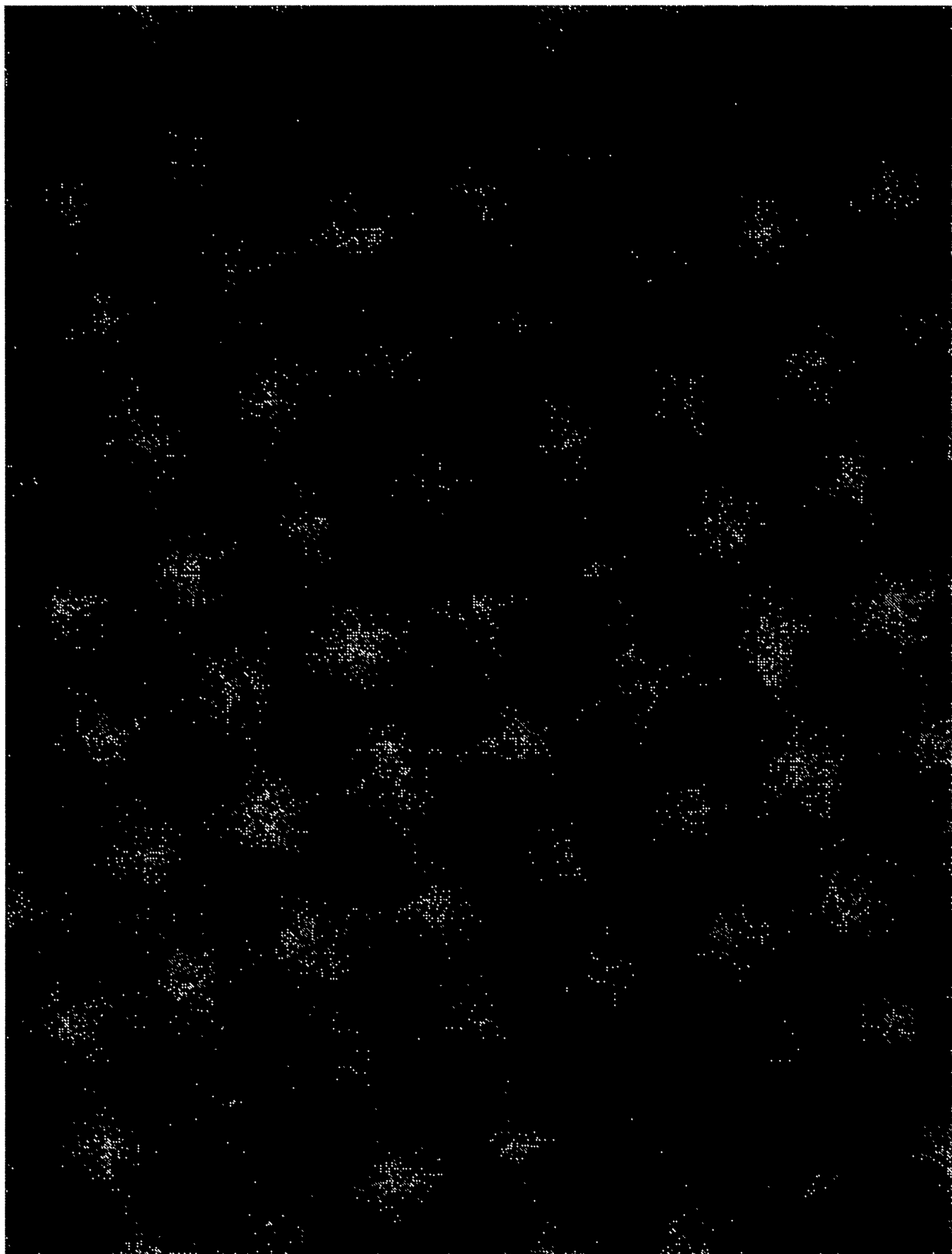


TABLE I-3

CITY OF CELINA			
	Water	Wastewater	Total
<b>Celina</b>	<b>\$ 37.13</b>	<b>\$ 37.79</b>	<b>\$ 74.92</b>
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
<b>Sample Average</b>	<b>38.01</b>	<b>38.08</b>	<b>76.10</b>
<b>2018 State Average*</b>	<b>38.21</b>	<b>35.99</b>	<b>74.21</b>
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			
	Population	Increase	Ave Annual Percent
2010 <sup>[1]</sup>	6,028		
2015 <sup>[1]</sup>	7,690	1,662	5.0%
2020 <sup>[2]</sup>	25,868	18,178	27.5%
2030 <sup>[3]</sup>	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

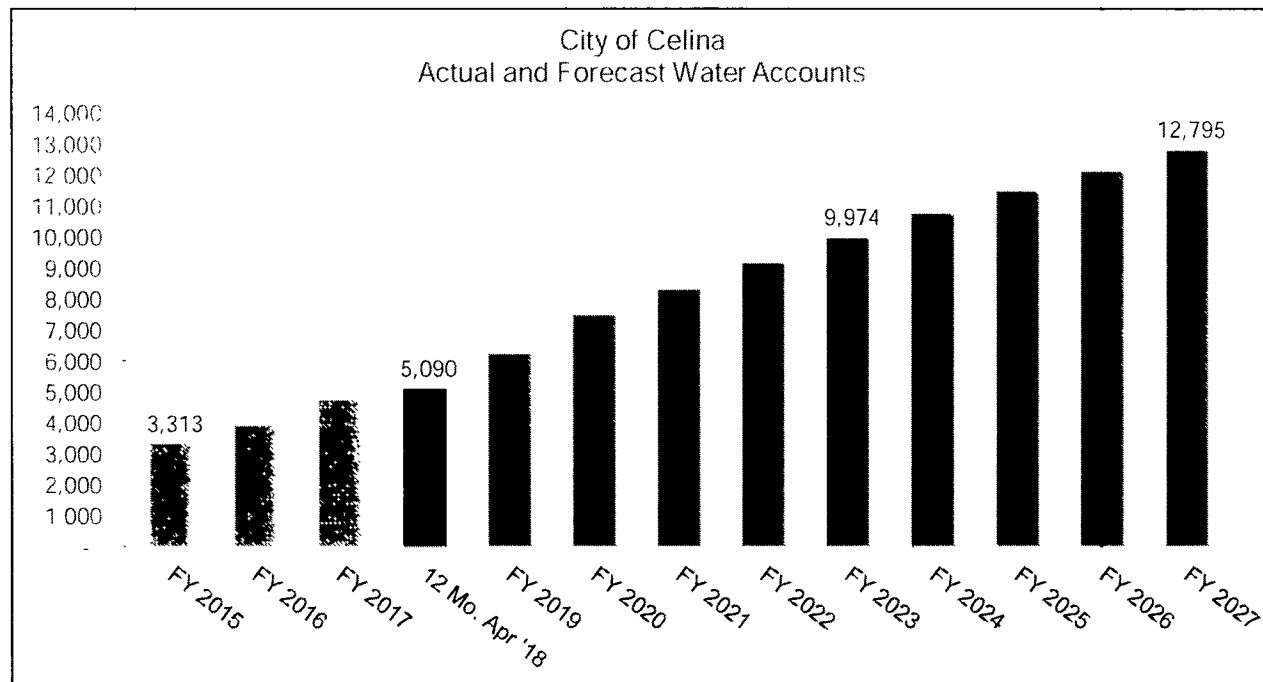
**Table II-2** and **Chart II-3** present total historical and forecast water accounts for the City. For each of the historical years, the average number of accounts for the year is shown and the growth reflects the difference from one fiscal year end to the next. The charts reveal that in 2016 and 2017 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
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
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



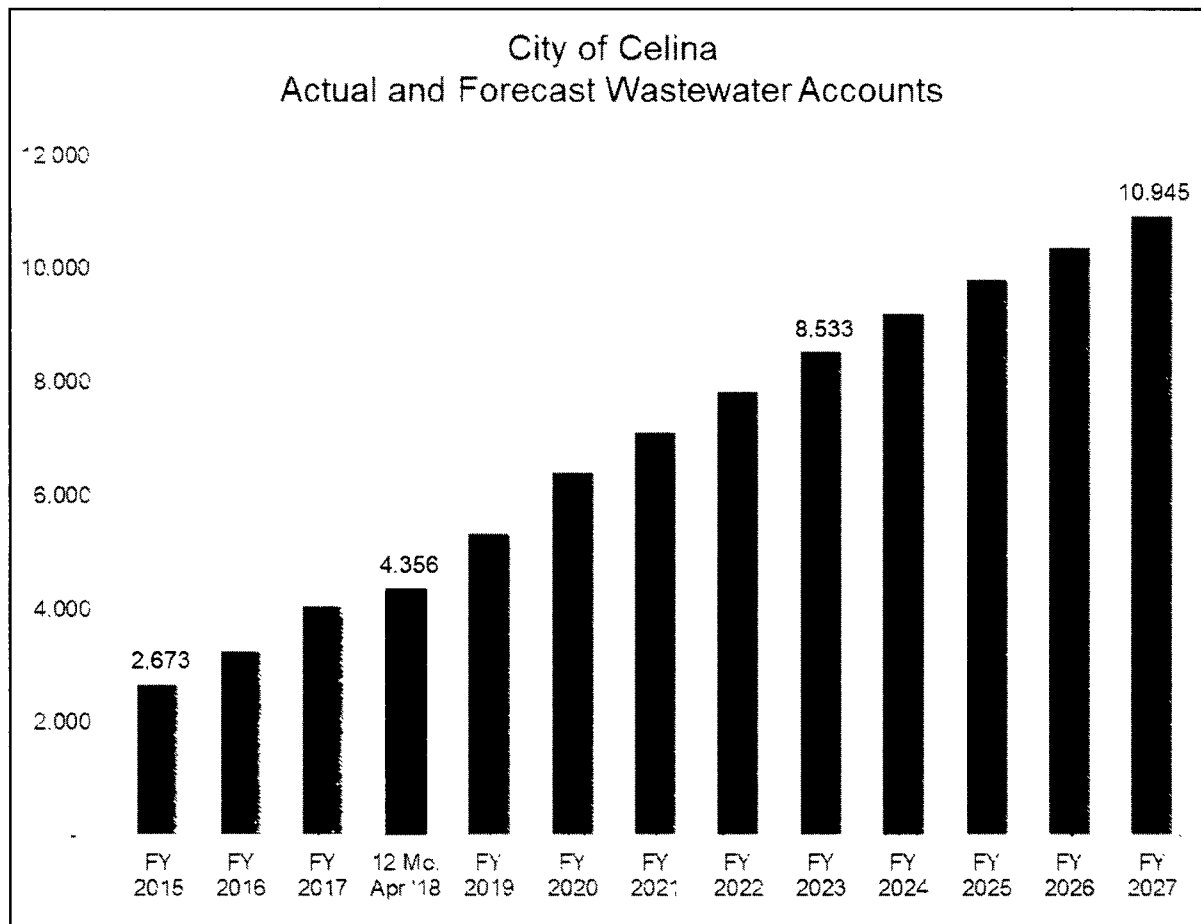
**Table II-4** and **Chart II-5** present wastewater accounts and classifications for the City for the past three fiscal years and the forecast growth over the next ten years. The tables reveal that the City's total wastewater accounts of **4,356** in FY 2018 are forecast to increase to **10,945** by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



TABLE II-4

CITY OF CELINA					
FORECAST TOTAL CUSTOMERS					
WASTEWATER Customer Classes					
	Residential	Residential Outside	Commercial	Commercial Outside	Total
<b>WASTEWATER Total Customers</b>					
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
<b>WASTEWATER Annual New Customers</b>					
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

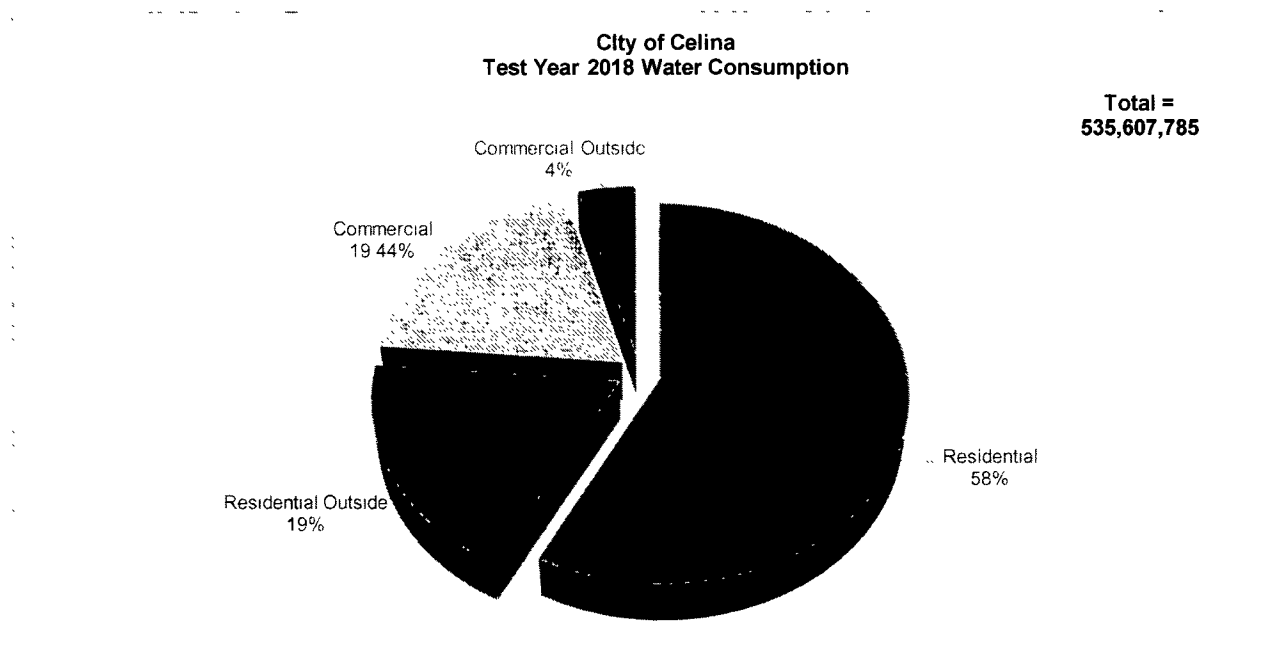
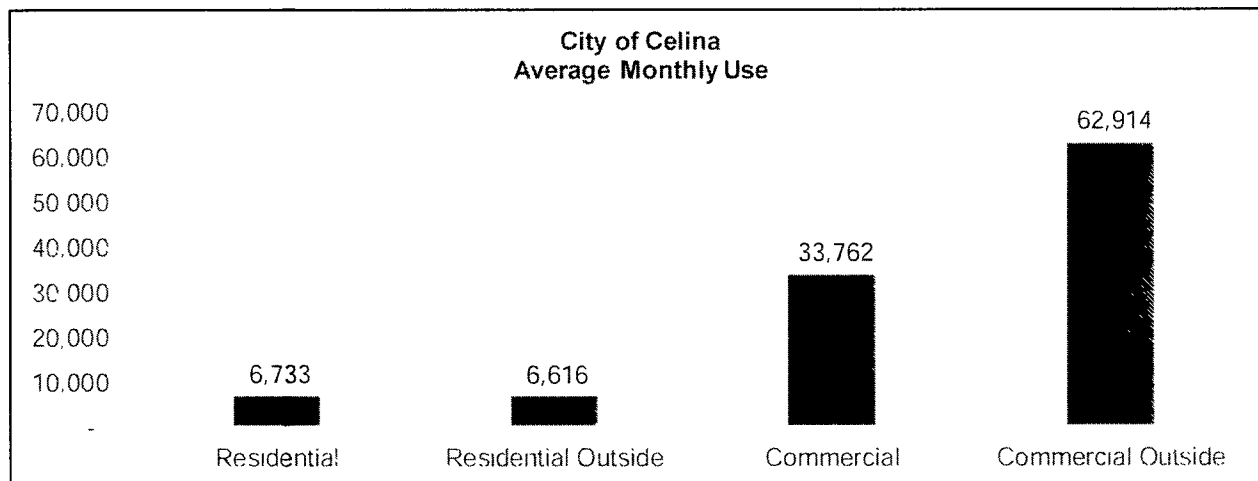


CHART II-7



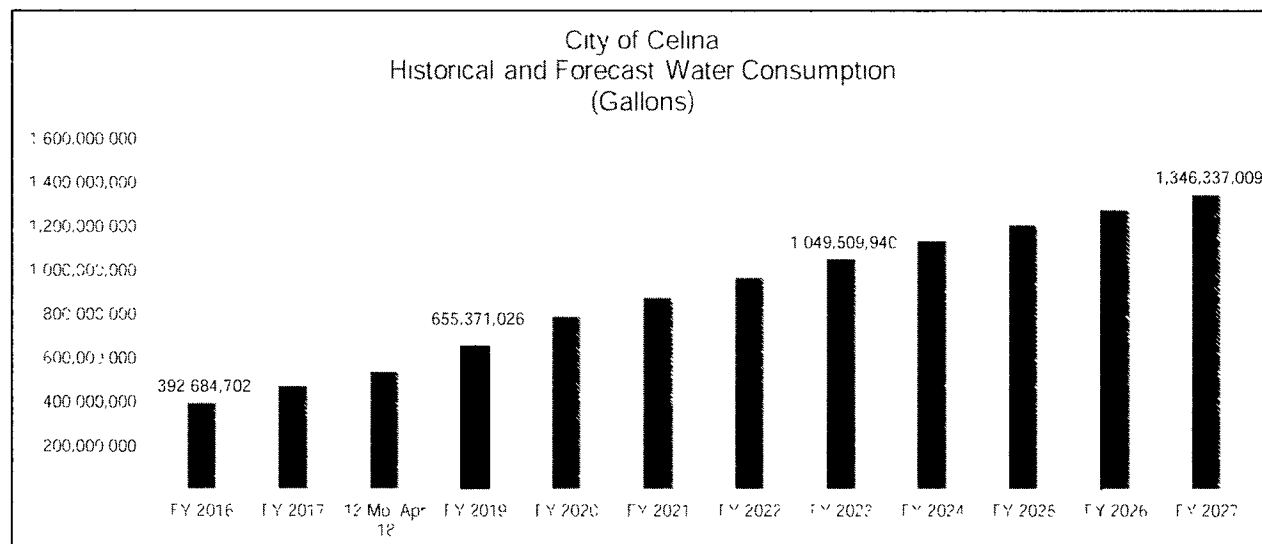
**Table II-8** and **Chart II-9** which present consumption by rate classification for the City for the past three fiscal years and the forecast growth over the next ten years.



TABLE II-8

CITY OF CELINA FORECAST BILLED CONSUMPTION					
	Residential	Residential Outside	Commercial	Commercial Outside	Total
FY 2015	206,962,840	41,836,504	70,571,984	10,199,400	332,570,728
FY 2016	226,356,251	69,370,321	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 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

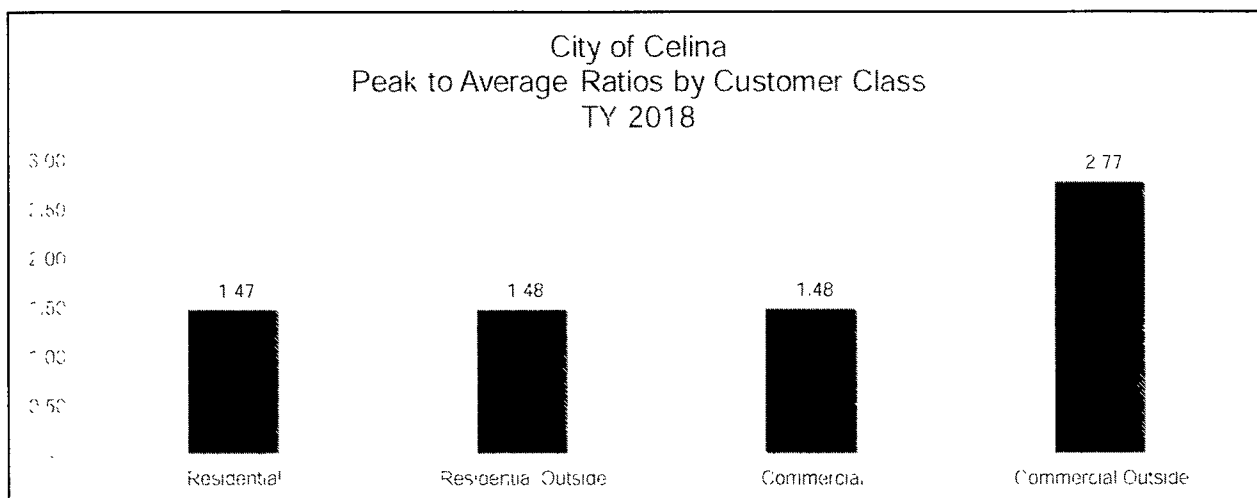
allocated to customers in proportion to the contribution of each customer class to the system peak, to develop equitable cost-based rates. Thus, it is necessary to determine the peak rate of use relative to the average rate of use for each class. This ratio is called a **Peaking Factor**.

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

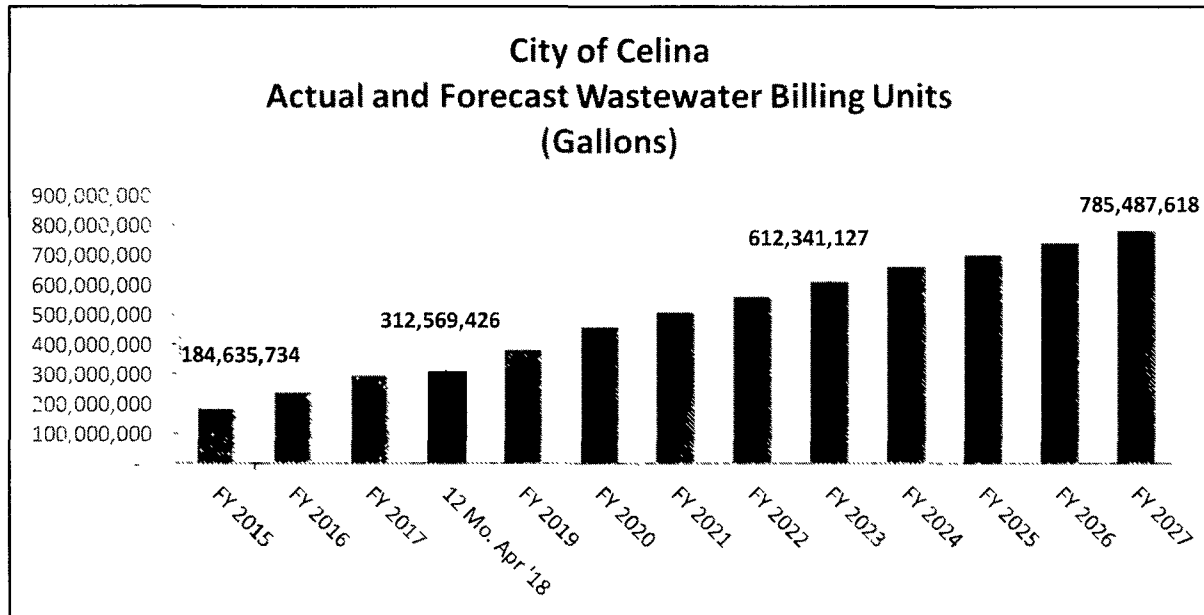
The City currently calculates wastewater charges for all customers based on their total volume of water consumption. The wastewater charges for Single-Family Residential customer class is capped at 14,000 gallons water consumption per month.

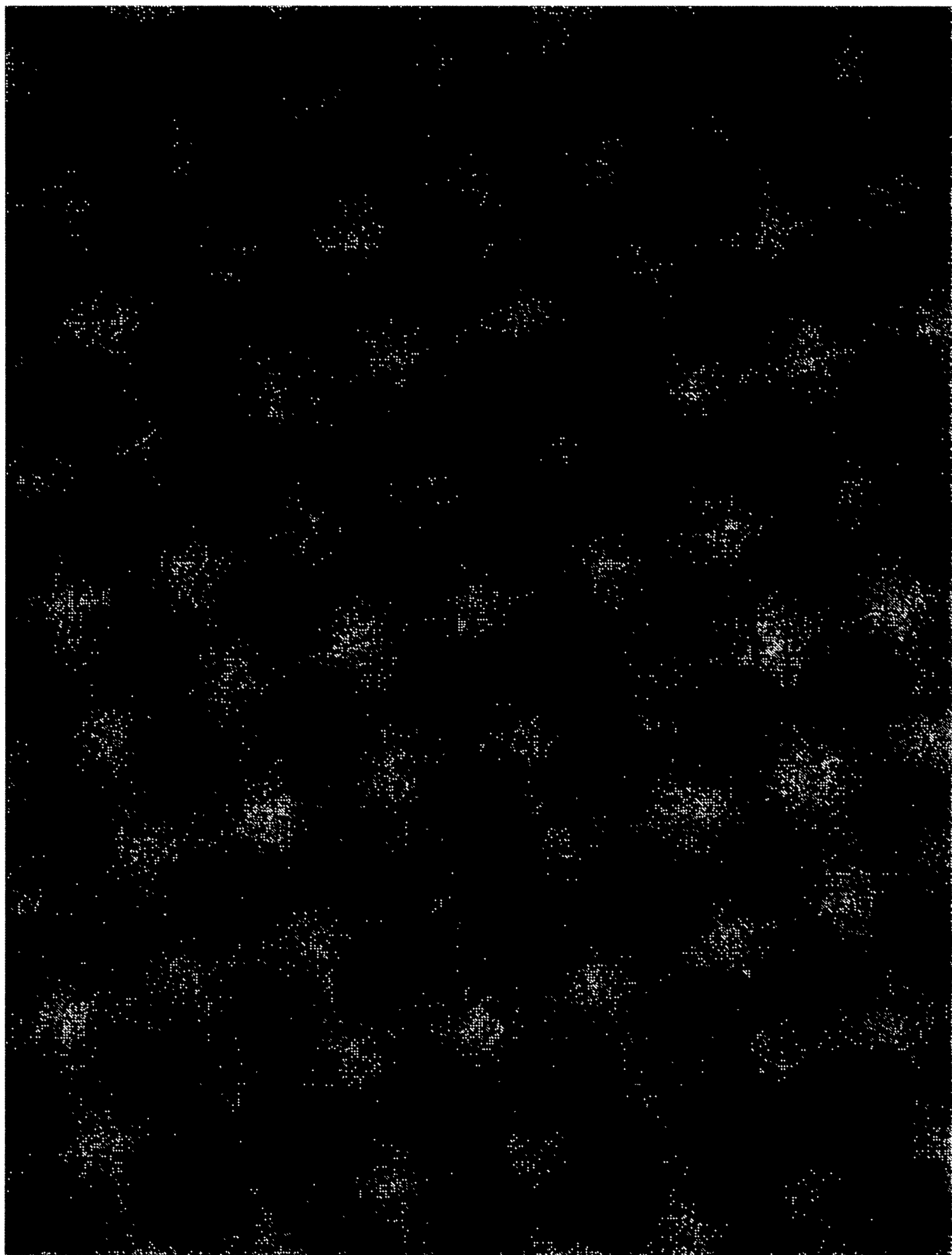
As with water billed consumption, the project team prepared a ten-year forecast of wastewater billing units. Since individual customer wastewater flow is not metered, it is derived from the water consumption figures for each customer class. The billing unit forecast is derived using anticipated growth 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
<b>WASTEWATER Historical Billing Units</b>					
FY 2015	168,638,444	156,100	15,748,990	92,200	<b>184,635,734</b>
FY 2016	217,345,047	86,100	20,605,360	92,600	<b>238,129,107</b>
FY 2017	276,165,029	72,600	21,126,552	74,400	<b>297,438,581</b>
<b>WASTEWATER Forecast Billing Units</b>					
12 Mo. Apr '18	288,193,448	76,000	24,239,678	60,300	<b>312,569,426</b>
FY 2019	352,634,224	76,000	29,659,731	60,300	<b>382,430,254</b>
FY 2020	423,599,130	76,000	35,628,521	60,300	<b>459,363,951</b>
FY 2021	470,958,042	76,000	39,611,835	60,300	<b>510,706,177</b>
FY 2022	518,346,371	76,000	43,597,622	60,300	<b>562,080,293</b>
FY 2023	564,707,790	76,000	47,497,037	60,300	<b>612,341,127</b>
FY 2024	608,902,316	76,000	51,214,197	60,300	<b>660,252,813</b>
FY 2025	649,747,940	76,000	54,649,684	60,300	<b>704,533,924</b>
FY 2026	686,069,257	76,000	57,704,635	60,300	<b>743,910,192</b>
FY 2027	724,420,958	76,000	60,930,360	60,300	<b>785,487,618</b>

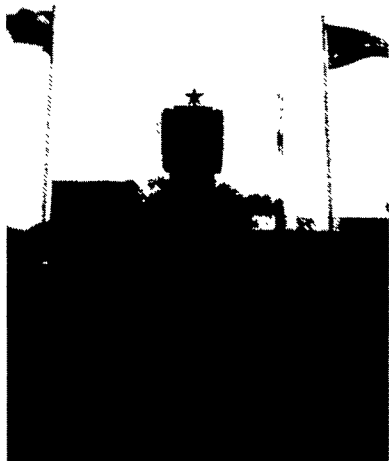
CHART II-12





## 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						
SCENARIO: 2018 11 14 Scenario 1 -- Status Quo						
Department Code		Net Budget	Treatment	Distribution	Admin	Customer Billing
<b><u>Operating &amp; Maintenance</u></b>						
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	-	-	-
	<b>Total Operating &amp; Maintenance</b>	<b>4,139,331</b>	<b>2,127,200</b>	<b>1,826,858</b>	<b>-</b>	<b>185,273</b>
	<b>Transfers</b>	<b>359,415</b>	<b>-</b>	<b>-</b>	<b>359,415</b>	<b>-</b>
	<b>Capital Outlays</b>	<b>181,823</b>	<b>-</b>	<b>181,823</b>	<b>-</b>	<b>-</b>
	<b>Total WATER Operating Expenses, Transfers and Capital Outlays</b>	<b>\$ 4,680,570</b>	<b>\$ 2,127,200</b>	<b>\$ 2,008,681</b>	<b>\$ 359,415</b>	<b>\$ 185,273</b>

TABLE III-2

CITY OF CELINA						
SCENARIO: 2018 11 14 Scenario 1 -- Status Quo						
Department Code		Net Budget	Treatment	Collection	Admin	Customer Billing
<b><u>Operating &amp; Maintenance</u></b>						
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	-	-
	<b>Total Operating &amp; Maintenance</b>	<b>3,164,382</b>	<b>2,009,037</b>	<b>1,048,360</b>	<b>-</b>	<b>106,985</b>
	<b>Transfers</b>	<b>167,585</b>	<b>-</b>	<b>-</b>	<b>167,585</b>	<b>-</b>
	<b>Capital Outlays</b>	<b>117,911</b>	<b>-</b>	<b>117,911</b>	<b>-</b>	<b>-</b>
	<b>Total WATER Operating Expenses, Transfers and Capital Outlays</b>	<b>\$ 3,449,877</b>	<b>\$ 2,009,037</b>	<b>\$ 1,166,271</b>	<b>\$ 167,585</b>	<b>\$ 106,985</b>



## Operating Expenses and Capital Outlays – Ten Year Forecast

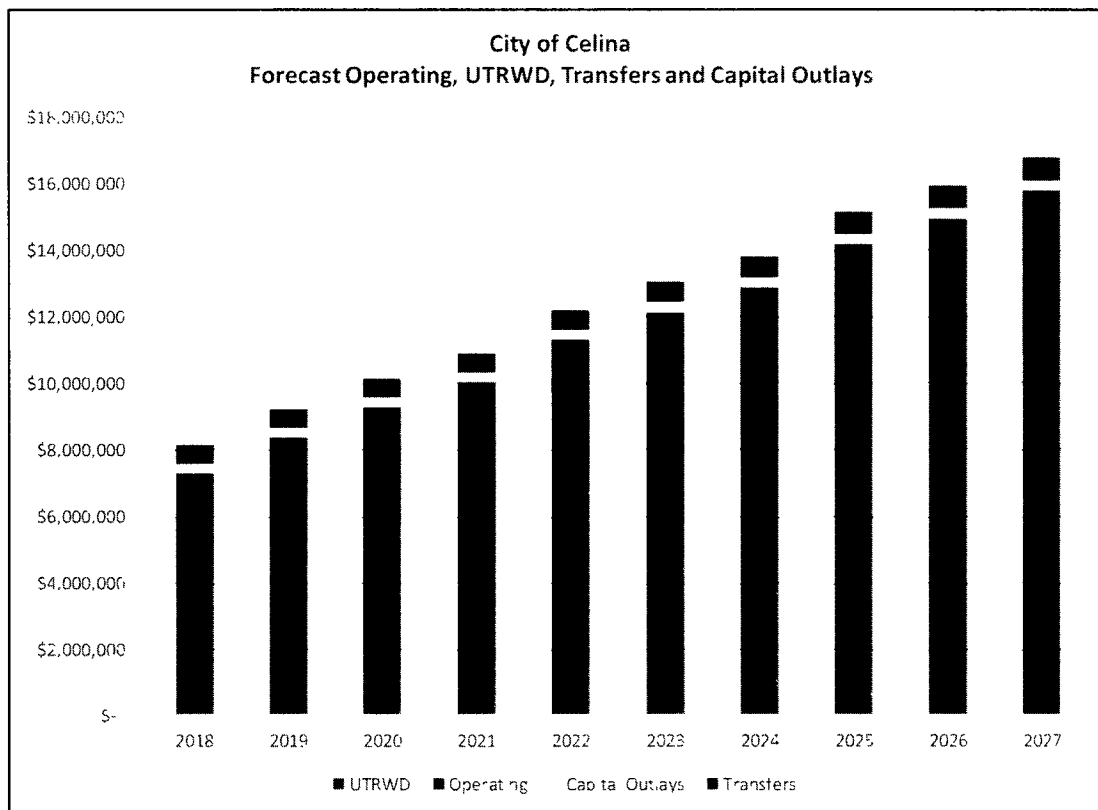
**Table III-3** and **Chart III-4** present the water and wastewater utility operating expense and capital outlay forecast for the five-year period FY 2018 – FY 2022. Details behind these calculations can be found in the rate model summarized in **Appendix A**. This forecast is based on the following 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						
FORECAST OPERATING EXPENSES AND CAPITAL OUTLAYS						
SCENARIO:						
2018 11 14 Scenario 1 -- Status Quo						
	Operating Expenses	UTRWD Payments	Capital Outlays	Transfers & Contingencies	Total Operating/ Capital Outlays	
<b>Operating Expenses</b>						
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	
<b>WASTEWATER Revenue Requirement</b>						
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	
<b>TOTAL Revenue Requirement</b>						
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)

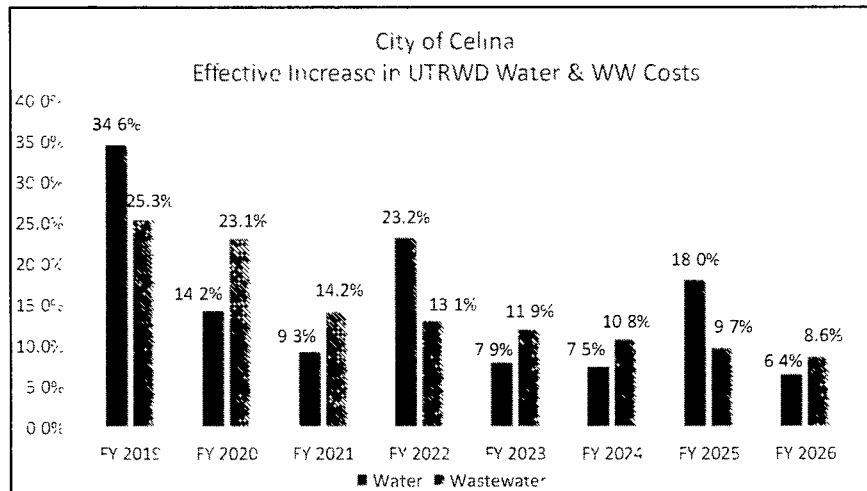
As stated above, a primary component of the City's operating budget is its contractual agreement for treated water service from UTRWD. The project team obtained recent correspondence from UTRWD regarding their preliminary forecasts of the future cost of service. Each year UTRWD updates its forecast of 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

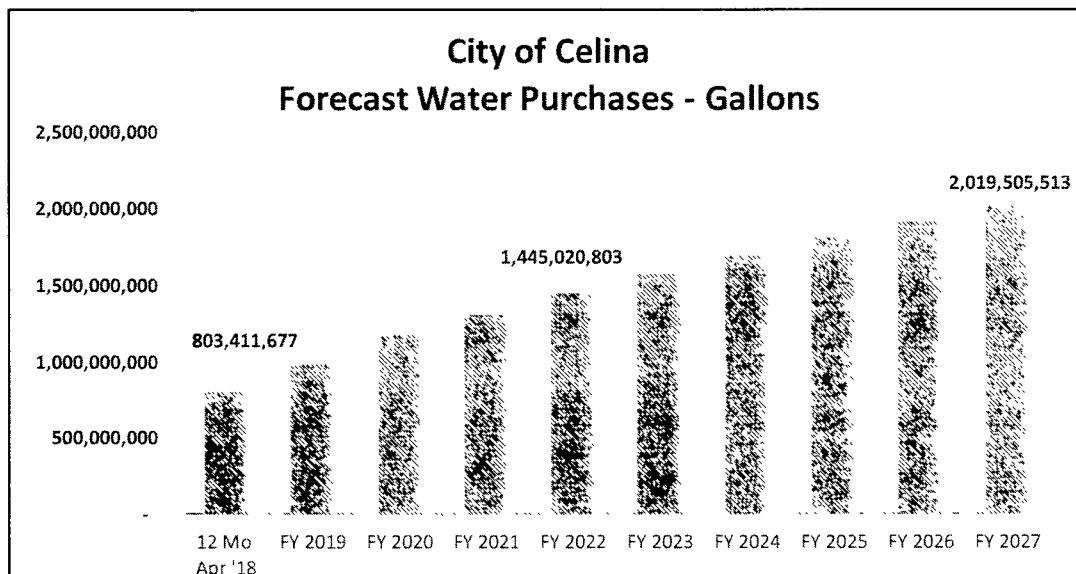
the next decade. Importantly, these increases do not just reflect cost increases by NTMWD; they also incorporate Celina's forecast growth in demand. It should also be noted that Celina's contract water demand is assumed to increase by 1.0 MGD in 2019, 2022, and 2025.

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 RATES	
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
<b>Total Water Projects</b>	<b>\$ 71,346,000</b>
WASTEWATER PROJECTS	
30", 36", 42", 60" Interceptor from Downtown to WWT	\$ 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
<b>Total Wastewater Projects</b>	<b>\$ 92,937,000</b>
<b>Total Water and Wastewater Projects</b>	<b>\$ 164,283,000</b>

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



## 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							
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
<b>WASTEWATER Revenue Requirement</b>							
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
<b>TOTAL Revenue Requirement</b>							
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			
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		
<b>SCENARIO:</b>		
2018 11 14 Scenario 1 -- Status Quo		
	2018	
	Revenue	
<b>Function</b>	<b>Requirement</b>	<b>Percent</b>
Base	\$ 2,782,775	64.43%
Maximum Day	1,391,387	32.22%
Customer	144,599	3.35%
<b>Total</b>	<b>4,318,761</b>	<b>100.0%</b>

## 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		
[REDACTED]		
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%
<b>Total</b>	<b>4,318,761</b>	<b>100.0%</b>

TABLE III-14

CITY OF CELINA					
[REDACTED]					
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%
<b>Total</b>	<b>3,153,381</b>	<b>100.0%</b>

## 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**.