

2018

Town of Florence

Water and Wastewater Utility Cost of Service Rate and Cost Allocation Study





2018 TOWN OF FLORENCE WATER AND WASTEWATER UTILITY COST OF SERVICE RATE AND COST ALLOCATION STUDY

DRAFT
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**TOWN OF FLORENCE, ARIZONA
WATER AND WASTEWATER RATE AND COST ALLOCATION STUDY
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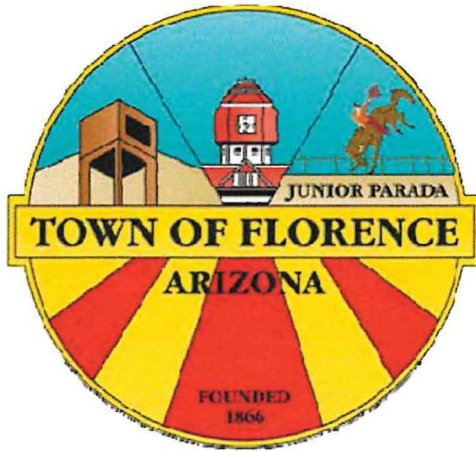
During the course of this rate study, several Town employees expended considerable time and effort in assisting the project team. These employees included the Mayor and Council, Brent Billingsley, Joe Jarvis and Stacy Ramirez, as well as Mr. Eric Laurin of Coe and Van Loo. The project team owes a debt 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 Town, and thus the integrity of the study is largely dependent upon the accuracy of this financial and volumetric 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.

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, in conformity with guidelines for presentation of a forecast established by the American Institute of Certified Public Accountants.

Executive Summary

Executive Summary



Background

In May 2017 the Town of Florence, Arizona (“the Town”) engaged **Willdan Financial Services (WFS)** to complete an update to its 2012 Water and Wastewater Rate Study and Long-Term Financial Plan. The Town 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 water and wastewater operating and capital costs for the test year and a period ten-years into the future
- An estimate of current and forecast accounts, volumes and billing units for the ten-year forecast

period

- A review of the adequacy and appropriateness of existing water and wastewater customer classes
- A thorough engineering assessment, review and update of the water and wastewater system’s known capital improvement needs, as well as a determination of the need for funding capital requirements through the issuance of long-term debt
- An evaluation of the current water and wastewater rate structures and revenue recovered versus the revenue requirement, both overall and for each customer class
- The development of a rate structure that would recover the Town’s cost of service, ensure equitable, just and reasonable treatment of identified customer classes, and maintain critical financial ratios
- A cost allocation assessment to ensure that the water and wastewater fund is paying its fair share to the General Fund. A review of the Town’s current methodology for making this transfer and provide input on alternatives for compensating the General Fund for the indirect support services provided to the water and wastewater utilities.

The analysis and recommendations presented in this study achieve all of the objectives outlined. **Appendix A** presents the results of the project team’s rate model for all rate scenarios, and **Appendix B** presents the results of the project team’s cost allocation model and proposed annual cost allocations.

Water and Wastewater Rate Comparison

Table ES-1 compares the Town’s monthly water and wastewater charges to nine utilities located in Pinal County, Arizona. The average residential user in the Town consumes approximately 3,400 gallons per month, which represents a decrease of approximately 18% over the past 6 years. A volume of 4,000 gallons water was used for the residential comparison as requested by Town Staff to reflect the typical usage levels for an average household.

The rate and customer cost data is based on the Water Infrastructure Finance Authority of Arizona's (WIFA) 2017 Water and Wastewater Rates Dashboard, and the Johnson Utilities website for the CAGR Adjuster Fee. These rates do not include sales tax, activation or other charges beyond the monthly base and volume charges, other than for Johnson Utilities. Additionally, where appropriate, certain cities that charge for service based on cubic feet of water have had their rates converted to an equivalent charge per 1,000 gallons. The table reveals that the Town’s rates are approximately equivalent to the state average and below several similarly-sized cities.

Table ES-1

Town of Florence				
Total Monthly Residential Charges for 4,000 Gallons Water and Wastewater				
	2016 Population	4,000 Gallons Water	4,000 Gallons Wastewater	TOTAL
Florence	25,779	\$ 28.70	\$ 35.95	\$ 64.65
Apache Junction *	39,954	30.48	43.35	73.83
Apache Junction Water Dist	39,954	36.86	43.35	80.21
Casa Grande *	54,534	28.76	33.70	62.46
Coolidge *	12,528	28.76	17.15	45.91
Eloy	17,442	31.37	50.64	82.01
Johnson Utilities-Phoenix AMA**	NA	40.74	40.98	81.72
Johnson Utilities-Pinal AMA **	NA	33.70	40.98	74.68
Piccacho Water & Sewer	NA	27.00	42.00	69.00
Queen Creek	35,524	23.64	27.61	51.25

Source: 2017 WIFA Water and WW Rates Dashboard

^ Served by Arizona Water
 ** Includes CAGR Adjuster Fee

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

The Town’s water and wastewater customer classes and account growth forecasts are listed in **Table ES-2** and **Table ES-3**. Water cubic foot and gallon-based meters are added together for each meter size. As of April 2017, the Town maintains 3,579 gallon meters (79.87%) and 828 cubic foot meters (23.13%).

Table ES-2

TOWN OF FLORENCE																	
FORECAST TOTAL CUSTOMERS																	
WATER Customer Classes																	
	5/8" Inside	5/8" Outside	1" Inside	1" Outside	1 1/2" Inside	1 1/2" Outside	2" Inside	2" Outside	3" Compound	3" Turbine	3" Turbine-Out	4" Compound	4" Turbine	6" Turbine	8" Turbine	CCA	Total
WATER Total Customers																	
TY 2018	3,337	44	86	4	3	1	90	1	7	1	2	2	3	3	2	4	3,690
2019	3,344	44	87	4	3	1	93	1	7	1	2	2	3	3	2	4	3,601
2020	3,351	44	88	4	3	1	96	1	7	1	2	2	3	3	2	4	3,612
2021	3,376	44	89	4	3	1	99	1	7	1	2	2	3	3	2	4	3,641
2022	3,401	44	90	4	3	1	102	1	7	1	2	2	3	3	2	4	3,670
2023	3,426	44	91	4	3	1	105	1	7	1	2	2	3	3	2	4	3,699
2024	3,451	44	92	4	3	1	108	1	7	1	2	2	3	3	2	4	3,728
2025	3,476	44	93	4	3	1	111	1	7	1	2	2	3	3	2	4	3,757
2026	3,501	44	94	4	3	1	114	1	7	1	2	2	3	3	2	4	3,786
2027	3,526	44	95	4	3	1	117	1	7	1	2	2	3	3	2	4	3,815

Table ES-3

TOWN OF FLORENCE						
FORECAST TOTAL CUSTOMERS						
WASTEWATER Customer Classes						
	Residential	Commercial	Non-Residential	Institutional	Other	Total
WASTEWATER Total Customers						
TY 2018	2,667	228	16	19	-	2,930
2019	2,674	231	16	19	-	2,940
2020	2,681	234	16	19	-	2,950
2021	2,706	237	16	19	-	2,978
2022	2,731	240	16	19	-	3,006
2023	2,756	243	16	19	-	3,034
2024	2,781	246	16	19	-	3,062
2025	2,806	249	16	19	-	3,090
2026	2,831	252	16	19	-	3,118
2027	2,856	255	16	19	-	3,146

The Town’s water and wastewater volumes are presented in **Table ES-4**, **Table ES-5** and **Table ES-6**. Detailed calculations of consumption billing units and strength levels are presented in Section II of this report and in the rate model presented in Appendix A.

As part of the process of determining the wastewater cost of service by customer class, the project team used historic sampling data for both the prisons and the Town’s wastewater treatment plants to determine the total

pounds of BOD and TSS generated by each customer class. Table ES-6 presents total billing units, BOD and TSS strengths in mg/l, and total pounds of BOD and TSS forecast to be treated by the Town for each of the next ten years. The table separates out volumes, BOD and TSS for the institutional customer class, which incorporates all of the prisons, and the domestic customer classes, which include residential, commercial, non-residential and mobile homes.

Table ES-4

TOWN OF FLORENCE										
FORECAST CONSUMPTION - GALLONS WATER by Customer Class (Meter Size)										
	5/8" Inside	5/8" Outside	1" Inside	1" Outside	1 1/2" Inside	1 1/2" Outside	2" Inside	2" Outside	Other Classes	Total
WATER Forecast Volume										
2018	136,494,475	2,270,068	14,506,396	509,061	1,521,700	273,400	58,773,680	1,034,200	261,424,972	476,807,952
2019	136,637,636	2,270,068	14,590,736	509,061	1,521,700	273,400	59,753,241	1,034,200	261,424,972	478,015,014
2020	136,780,648	2,270,068	14,674,590	509,061	1,521,700	273,400	60,717,003	1,034,200	261,424,972	479,205,643
2021	137,290,871	2,270,068	14,757,969	509,061	1,521,700	273,400	61,665,707	1,034,200	261,424,972	480,747,948
2022	137,799,205	2,270,068	14,840,879	509,061	1,521,700	273,400	62,600,035	1,034,200	261,424,972	482,273,520
2023	138,305,671	2,270,068	14,923,328	509,061	1,521,700	273,400	63,520,624	1,034,200	261,424,972	483,783,024
2024	138,810,289	2,270,068	15,005,324	509,061	1,521,700	273,400	64,428,062	1,034,200	261,424,972	485,277,076
2025	139,313,079	2,270,068	15,086,875	509,061	1,521,700	273,400	65,322,896	1,034,200	261,424,972	486,756,251
2026	139,814,061	2,270,068	15,167,987	509,061	1,521,700	273,400	66,205,638	1,034,200	261,424,972	488,221,087
2027	140,313,255	2,270,068	15,248,668	509,061	1,521,700	273,400	67,076,765	1,034,200	261,424,972	489,672,088

Table ES-5

TOWN OF FLORENCE							
FORECAST WASTEWATER BILLING UNITS WASTEWATER Customer Classes							
FY	Residential	Commercial	Non-Residential	Institutional	ADOC	CCA	Total
WASTEWATER Forecast Billing Units							
2018	103,149,948	78,330,450	655,181	74,639,008	183,352,340	148,737,135	588,864,063
2019	103,692,843	80,419,262	655,181	74,639,008	183,352,340	148,737,135	591,495,769
2020	103,964,290	81,463,668	655,181	74,639,008	183,352,340	148,737,135	592,811,622
2021	104,933,744	82,508,074	655,181	74,639,008	183,352,340	148,737,135	594,825,483
2022	105,903,199	83,552,480	655,181	74,639,008	183,352,340	148,737,135	596,839,343
2023	106,872,653	84,596,886	655,181	74,639,008	183,352,340	148,737,135	598,853,204
2024	107,842,108	85,641,292	655,181	74,639,008	183,352,340	148,737,135	600,867,064
2025	108,811,562	86,685,698	655,181	74,639,008	183,352,340	148,737,135	602,880,924
2026	109,781,016	87,730,104	655,181	74,639,008	183,352,340	148,737,135	604,894,785
2027	110,750,471	88,774,510	655,181	74,639,008	183,352,340	148,737,135	606,908,645

Table ES-6

TOWN OF FLORENCE						
FORECAST WASTEWATER BILLING UNITS						
WASTEWATER Customer Classes						
FY	Total Billing Units	Total MG/L		Total Lbs		
		BOD	TSS	BOD	TSS	
Total System						
2018	590,179,916	150	165	739,848	813,162	
2019	591,495,769	150	165	741,498	814,975	
2020	592,811,622	150	165	743,147	816,788	
2021	594,825,483	150	165	745,672	819,563	
2022	596,839,343	150	165	748,196	822,337	
2023	598,853,204	150	165	750,721	825,112	
2024	600,867,064	150	165	753,245	827,887	
2025	602,880,924	150	165	755,770	830,661	
2026	604,894,785	150	165	758,295	833,436	
2027	606,908,645	150	165	760,819	836,211	
Institutional						
2018	406,728,483	151	184	227,639	189,013	
2019	406,728,483	151	184	229,288	190,826	
2020	406,728,483	151	184	230,938	192,639	
2021	406,728,483	151	184	233,462	195,413	
2022	406,728,483	151	184	235,987	198,188	
2023	406,728,483	151	184	238,511	200,963	
2024	406,728,483	151	184	241,036	203,737	
2025	406,728,483	151	184	243,561	206,512	
2026	406,728,483	151	184	246,085	209,287	
2027	406,728,483	151	184	248,610	212,062	
Domestic (Residential/Commercial)						
2018	183,451,433	149	124	512,209	624,149	
2019	184,767,286	149	124	512,209	624,149	
2020	186,083,139	149	124	512,209	624,149	
2021	188,096,999	149	125	512,209	624,149	
2022	190,110,860	149	125	512,209	624,149	
2023	192,124,720	149	125	512,209	624,149	
2024	194,138,581	149	126	512,209	624,149	
2025	196,152,441	149	126	512,209	624,149	
2026	198,166,301	149	127	512,209	624,149	
2027	200,180,162	149	127	512,209	624,149	

Water and Wastewater Capital Improvement Plan

One of the most critical components of a utility's revenue requirement and rate plan is the forecast Capital Improvements required to repair and maintain the system. Like most municipalities, Florence maintains an extensive and detailed capital improvement program. Minor capital improvements are contained in the Town's

budget and are funded annually. Major capital improvements have historically been funded primarily through operating revenue, although certain projects have been funded by debt issued by the Town.

Town staff and the project team worked together to develop the Town's forecast capital improvements needs over the next decade. The forecast CIP is summarized in **Chart ES-7**. As the chart reveals, the Town is forecast to invest **\$56,948,078** in total capital improvements in the next decade. The majority of these improvements are forecast to be in the wastewater division and funded by Developer Impact Fees.

Chart ES-7

TOWN OF FLORENCE		CAPITAL IMPROVEMENT PLAN		
SCENARIO:	2018 02 28 Scenario 1 -- Status Quo			
	Total	Years 1-5	Years 6-10	
WATER CIP	\$ 18,389,578	\$ 12,121,578	\$ 6,268,000	
WASTEWATER CIP	<u>38,558,500</u>	<u>35,463,500</u>	<u>3,095,000</u>	
Total CIP	\$ 56,948,078	\$ 47,585,078	\$ 9,363,000	
Percent	100.0%	83.6%	16.4%	

The CIP is forecast to be funded through a combination of private sector CFD financing, private sector development agreement financing, impact fees, grants, and private sector donations. Certain projects within the CIP are expressly designated for these alternative funding instruments.

Table ES-8 illustrates the amount of Developer Impact Fee Funding portion of the forecast water and wastewater capital expenditures over the forecast period. The difference between the amount required by the Town to fund the CIP and the amount provided by the financing tools described above must be financed through the issuance of long-term debt.

The debt forecast to be issued by the Town is summarized in **Table ES-9**. The table reveals that the Town is forecast to issue approximately **\$5,000,000** in long-term debt to finance its capital improvement plan. The issue, scheduled for 2021 and is assumed to be for a 20-year term at a 4.0% interest rate.

Table ES-8

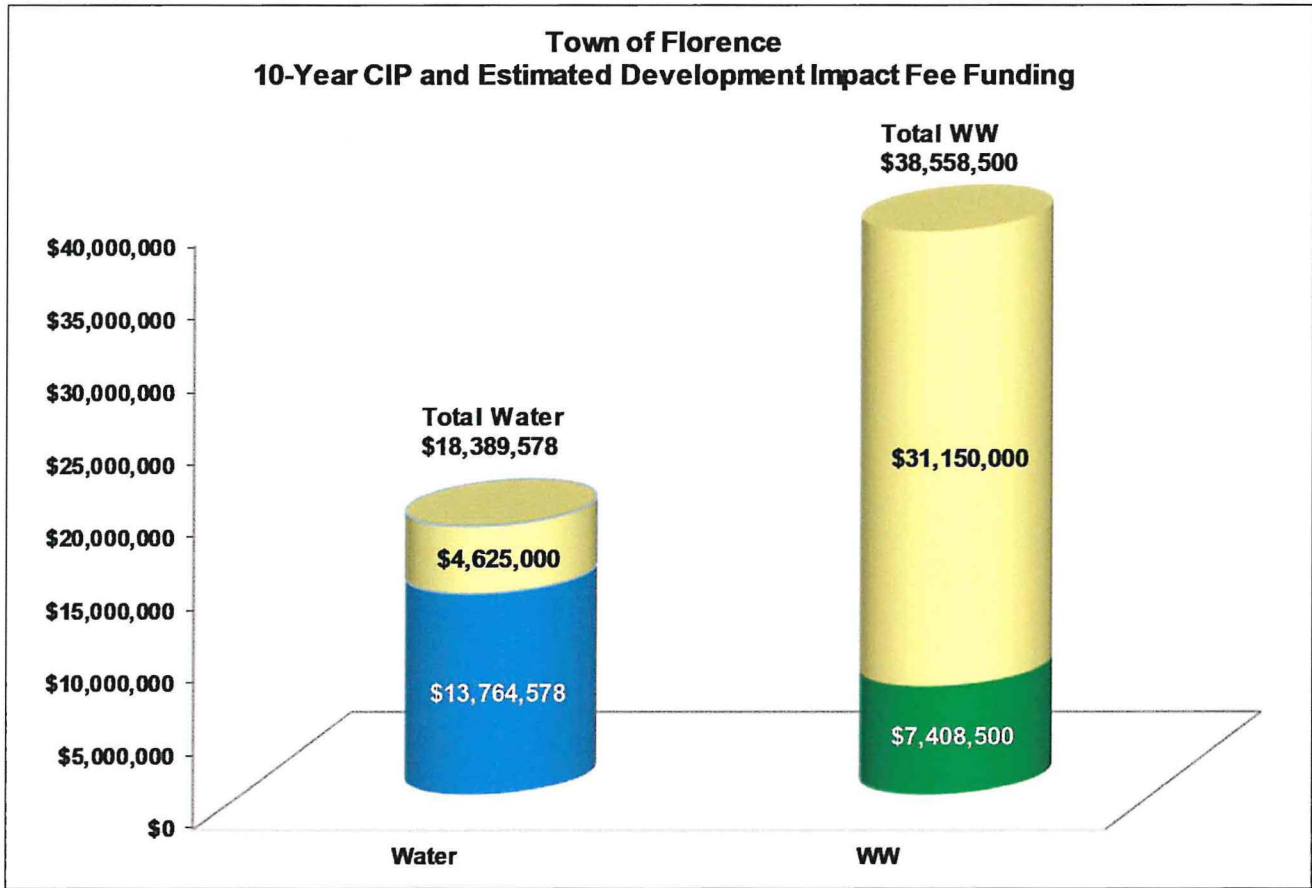


Table ES-9

TOWN OF FLORENCE				
FORECAST BOND ISSUES				
SCENARIO:	2018 02 28 Scenario 1 -- Status Quo			
	Total	WATER	WASTEWATER	
2018	\$ -	\$ -	\$ -	
2019	-	-	-	
2020	-	-	-	
2021	5,000,000	-	5,000,000	
2022	-	-	-	
2023	-	-	-	
2024	-	-	-	
2025	-	-	-	
2026	-	-	-	
2027	-	-	-	
Total Bonds	\$ 5,000,000	\$ -	\$ 5,000,000	

Water and Wastewater Test Year and Forecast Net Revenue Requirement

Table ES-10 presents the test year and ten-year forecast for the Town’s net revenue requirement to be raised from rates for the water and wastewater utilities. As the table reveals, debt service becomes an increasing portion of the total revenue requirement in future years.

Table ES-10

TOWN OF FLORENCE								
CURRENT AND FORECAST REVENUE REQUIREMENT								
SCENARIO:	2018 02 28 Scenario 1 -- Status Quo							
	Operating Expenses	Capital Outlays	Current Debt Service	Future Debt Service	Operating Transfers	Total Cost of Service	Less Non-Rate Revenues	Net Revenue Requirement
WATER Revenue Requirement								
2018	\$ 1,901,265	\$ 1,000,000	\$ -	\$ -	\$ 461,770	\$ 3,363,035	\$ 264,664	\$ 3,098,371
2019	1,972,425	1,000,000	-	-	475,623	3,448,048	264,664	3,183,384
2020	2,046,557	1,000,000	-	-	489,892	3,536,449	264,664	3,271,785
2021	2,124,724	1,000,000	-	-	504,589	3,629,312	264,664	3,364,648
2022	2,206,097	1,000,000	-	-	519,726	3,725,823	264,664	3,461,159
2023	2,290,968	1,000,000	-	-	535,318	3,826,286	264,664	3,561,622
2024	2,379,510	660,000	-	-	551,378	3,590,887	264,664	3,326,223
2025	2,471,900	1,000,000	-	-	567,919	4,039,819	264,664	3,775,155
2026	2,568,327	1,000,000	-	-	584,956	4,153,284	264,664	3,888,620
2027	2,668,970	276,000	-	-	602,505	3,547,475	264,664	3,282,811
WASTEWATER Revenue Requirement								
2018	\$ 2,041,754	\$ 1,000,000	\$ 604,491	\$ -	\$ 493,566	\$ 4,139,811	\$ 111,963	\$ 4,027,848
2019	2,124,998	1,000,000	603,254	-	508,373	4,236,626	111,963	4,124,663
2020	2,212,367	1,000,000	604,010	-	523,624	4,340,001	111,963	4,228,038
2021	2,305,214	1,000,000	603,757	367,909	539,333	4,816,212	111,963	4,704,249
2022	2,402,431	1,000,000	603,496	367,909	555,513	4,929,349	111,963	4,817,386
2023	2,504,248	265,000	842,435	367,909	572,178	4,551,770	111,963	4,439,807
2024	2,610,904	415,000	84,653	367,909	589,344	4,067,809	111,963	3,955,846
2025	2,722,653	315,000	84,626	367,909	607,024	4,097,212	111,963	3,985,249
2026	2,839,765	415,000	84,598	367,909	625,235	4,332,506	111,963	4,220,543
2027	2,962,523	335,000	84,569	367,909	643,992	4,393,992	111,963	4,282,029
TOTAL Revenue Requirement								
2018	\$ 3,943,019	\$ 2,000,000	\$ 604,491	\$ -	\$ 955,336	\$ 7,502,846	\$ 376,627	\$ 7,126,219
2019	4,097,424	2,000,000	603,254	-	983,996	7,684,674	376,627	7,308,047
2020	4,258,924	2,000,000	604,010	-	1,013,516	7,876,450	376,627	7,499,823
2021	4,429,938	2,000,000	603,757	367,909	1,043,921	8,445,525	376,627	8,068,898
2022	4,608,528	2,000,000	603,496	367,909	1,075,239	8,655,172	376,627	8,278,545
2023	4,795,216	1,265,000	842,435	367,909	1,107,496	8,378,056	376,627	8,001,429
2024	4,990,413	1,075,000	84,653	367,909	1,140,721	7,658,696	376,627	7,282,069
2025	5,194,553	1,315,000	84,626	367,909	1,174,943	8,137,030	376,627	7,760,403
2026	5,408,092	1,415,000	84,598	367,909	1,210,191	8,485,790	376,627	8,109,163
2027	5,631,493	611,000	84,569	367,909	1,246,497	7,941,468	376,627	7,564,841

Water and Wastewater Rate Design

The Town last increased water and wastewater rates in 2014. This section of the reports presents three separate and distinct water and wastewater rate design scenarios for the Town to consider. Each of the rate design alternatives contained in this section are forecast to recover sufficient revenues to fund current and future operating expenses.

The three rate design Scenarios are:

- **Scenario 1 – “Status Quo”** -- maintains the same rate structures that the Town current charges for water and wastewater.
- **Scenario 2 – “Add Residential Water Tiers”**-- adds an additional rate tier for water meter sizes 5/8”, 1”, and 1 ½” and adjusts water rate tiers for meter sizes 2” and above. For customers with meter sizes 5/8”, 1”, and 1 ½” adding the lower 0 – 5,000 gallons block allows the Town’s lower usage customers to pay a lower rate for average consumption. Referred to as an inclining block rate with rates per 1,000 gallons increasing for each usage tier this rate structure encourages water conservation. The challenge is that this rate structure may disproportionately impact certain ratepayers based on usage. A slight adjustment to the rate tiers for customer with meter sizes 2” and larger will make it easier for customer to understand and calculate their monthly bills.
- **Scenario 3 – “Securing Future Water Charge”**-- maintains the same rate structures as Scenario 2. Rates for this scenario would apply to all customer as a flat charge monthly. The Town is within Pinal County’s active management area. The goal of Pinal County’s active management area is to balance the development of water resources for future needs while preserving future water supplies. When the Town requires additional water supply, in addition to the capital and development costs it incurs, it must pay fees to the Central Arizona Groundwater Replenishment District (CAGR) for extracting groundwater. The purpose of the Securing Future Water Charge is to fund these costs and enable ratepayers to understand the economic cost of water resources.

Tables ES-11, ES-12 and ES-13 present the rate plan and the calculated average impact on monthly water and wastewater bills for Scenario 1.

Tables ES-14, ES-15 and ES-16 present the rate plan and the calculated average impact on monthly water and wastewater bills for Scenario 2.

Tables ES-17, ES-18 and ES-19 present the rate plan and the calculated average impact on monthly water and wastewater bills for Scenario 3.

Table ES-20 compares the impact on monthly charges for each of the three scenarios.

Table ES-11

TOWN OF FLORENCE		WATER Utility -- Recommended Rate Plan						
Scen:	2018 02 28 Scenario 1 -- Status Quo							
	Current	Effective May-18	Effective Apr-19	Effective Apr-20	Effective Apr-21	Effective Apr-22	Effective Apr-23	
Water Inside Town Limits								
Base Charge								
5/8" Inside	\$ 22.34	\$ 24.13	\$ 26.06	\$ 27.62	\$ 29.00	\$ 30.45	\$ 31.97	
1" Inside	37.24	40.22	43.44	46.04	48.35	50.76	53.30	
1 1/2" Inside	93.10	120.64	130.29	138.10	145.01	152.26	159.87	
2" Inside	148.95	160.87	173.74	184.16	193.37	203.04	213.19	
3" Compound	238.34	257.41	278.00	294.68	309.41	324.88	341.13	
3" Turbine	260.68	281.53	304.06	322.30	338.42	355.34	373.10	
4" Compound	372.39	402.18	434.36	460.42	483.44	507.61	532.99	
4" Turbine	469.21	506.75	547.29	580.12	609.13	639.59	671.57	
6" Compound	744.78	804.36	868.71	920.83	966.88	1,015.22	1,065.98	
6" Turbine	1,042.69	1,126.11	1,216.19	1,289.17	1,353.62	1,421.30	1,492.37	
8" Turbine	1,787.47	1,930.47	2,084.91	2,210.00	2,320.50	2,436.52	2,558.35	
10" Turbine	2,830.17	3,056.58	3,301.11	3,499.18	3,674.14	3,857.84	4,050.73	
12" Turbine	3,723.91	4,021.82	4,343.57	4,604.18	4,834.39	5,076.11	5,329.92	
Usage Charge -- Gallons								
- 10,000	1.59	1.72	1.85	1.97	2.06	2.17	2.28	
10,001 18,700	2.21	2.39	2.58	2.73	2.87	3.01	3.16	
18,701 Above	3.93	4.24	4.58	4.86	5.10	5.36	5.62	
Usage Charge -- Cubic Feet								
- 1,337	1.14	1.23	1.33	1.41	1.48	1.55	1.63	
1,338 2,500	1.57	1.70	1.83	1.94	2.04	2.14	2.25	
2,501 Above	2.81	3.03	3.28	3.47	3.65	3.83	4.02	
Water Outside Town Limits								
Base Charge								
5/8" Outside	\$ 29.04	\$ 31.36	\$ 33.87	\$ 35.90	\$ 37.70	\$ 39.58	\$ 41.56	
1" Outside	48.40	52.27	56.45	59.84	62.83	65.97	69.27	
1 1/2" Outside	121.02	156.82	169.36	179.52	188.50	197.92	207.82	
2" Outside	193.64	209.13	225.86	239.41	251.38	263.95	277.15	
3" Compound	309.83	334.62	361.39	383.07	402.22	422.33	443.45	
3" Turbine	332.17	358.74	387.44	410.69	431.22	452.79	475.42	
4" Compound	484.11	522.84	564.67	598.55	628.47	659.90	692.89	
4" Turbine	580.93	627.40	677.60	718.25	754.17	791.87	831.47	
6" Compound	968.22	1,045.68	1,129.33	1,197.09	1,256.95	1,319.79	1,385.78	
6" Turbine	1,266.12	1,367.41	1,476.80	1,565.41	1,643.68	1,725.87	1,812.16	
8" Turbine	2,323.71	2,509.61	2,710.38	2,873.00	3,016.65	3,167.48	3,325.85	
10" Turbine	3,679.22	3,973.56	4,291.44	4,548.93	4,776.38	5,015.19	5,265.95	
12" Turbine	4,572.60	4,938.41	5,333.48	5,653.49	5,936.16	6,232.97	6,544.62	
Usage Charge -- Gallons								
- 10,000	2.04	2.20	2.38	2.52	2.65	2.78	2.92	
10,001 18,700	2.83	3.06	3.30	3.50	3.67	3.86	4.05	
18,701 Above	5.01	5.41	5.84	6.19	6.50	6.83	7.17	
Usage Charge -- Cubic Feet								
- 1,337	1.45	1.57	1.69	1.79	1.88	1.98	2.08	
1,338 2,500	2.02	2.18	2.36	2.50	2.62	2.75	2.89	
2,501 Above	3.57	3.86	4.16	4.41	4.63	4.87	5.11	

Table ES-12

TOWN OF FLORENCE		WASTEWATER Utility -- Recommended Rate Plan						
Scen:	2018 02 28 Scenario 1 -- Status Quo							
	Prior	Effective May-18	Effective Apr-19	Effective Apr-20	Effective Apr-21	Effective Apr-22	Effective Apr-23	
Residential								
Base Charge	\$ 18.55	\$ 19.11	\$ 19.68	\$ 20.66	\$ 22.32	\$ 23.66	\$ 24.37	
Usage Charge	4.35	4.48	4.61	4.85	5.23	5.55	5.71	
Commercial								
Base Charge	18.55	19.11	19.68	20.66	22.32	23.66	24.37	
Usage Charge	4.37	4.50	4.64	4.87	5.26	5.57	5.74	
Non-Residential								
Base Charge	18.55	19.11	19.68	20.66	22.32	23.66	24.37	
Usage Charge	4.37	4.50	4.64	4.87	5.26	5.57	5.74	
Institutional								
Base Charge	18.55	19.11	19.68	20.66	22.32	23.66	24.37	
Usage Charge	6.94	7.15	7.36	7.73	8.35	8.85	9.12	

Table ES-13

TOWN OF FLORENCE		WATER AND WASTEWATER Utility -- Impact of Rate Plan on Monthly Charges					
Scen:	2018 02 28 Scenario 1 -- Status Quo						
	Current	Effective May-18	Effective Apr-19	Effective Apr-20	Effective Apr-21	Effective Apr-22	Effective Apr-23
Monthly Gallons							
Water and Wastewater							
5,000	\$ 70.59	\$ 74.22 3.63	\$ 78.08 3.86	\$ 82.34 4.26	\$ 87.81 5.46	\$ 92.68 4.88	\$ 96.29 3.61
10,000	\$ 100.29	\$ 105.21 4.92	\$ 110.43 5.22	\$ 116.40 5.97	\$ 124.29 7.89	\$ 131.25 6.96	\$ 136.23 4.98
20,000	\$ 168.13	\$ 176.30 8.17	\$ 184.97 8.67	\$ 194.94 9.98	\$ 208.22 13.27	\$ 219.90 11.68	\$ 228.20 8.30
30,000	\$ 250.93	\$ 263.55 12.62	\$ 276.96 13.41	\$ 291.99 15.04	\$ 311.57 19.58	\$ 328.94 17.37	\$ 341.59 12.65

Table ES-14

TOWN OF FLORENCE		WATER Utility -- Recommended Rate Plan						
Scen:	2018 02 28 Scenario 2 -- Add Resid Tier							
	Current	Effective May-18	Effective Apr-19	Effective Apr-20	Effective Apr-21	Effective Apr-22	Effective Apr-23	
Water Inside Town Limits								
Base Charge								
5/8" Inside	\$ 22.34	\$ 24.13	\$ 26.06	\$ 27.62	\$ 29.00	\$ 30.45	\$ 31.97	
1" Inside	37.24	40.22	43.44	46.04	48.35	50.76	53.30	
1 1/2" Inside	93.10	120.64	130.29	138.10	145.01	152.26	159.87	
2" Inside	148.95	160.87	173.74	184.16	193.37	203.04	213.19	
3" Compound	238.34	257.41	278.00	294.68	309.41	324.88	341.13	
3" Turbine	260.68	281.53	304.06	322.30	338.42	355.34	373.10	
4" Compound	372.39	402.18	434.36	460.42	483.44	507.61	532.99	
4" Turbine	469.21	506.75	547.29	580.12	609.13	639.59	671.57	
6" Compound	744.78	804.36	868.71	920.83	966.88	1,015.22	1,065.98	
6" Turbine	1,042.69	1,126.11	1,216.19	1,289.17	1,353.62	1,421.30	1,492.37	
8" Turbine	1,787.47	1,930.47	2,084.91	2,210.00	2,320.50	2,436.52	2,558.35	
10" Turbine	2,830.17	3,056.58	3,301.11	3,499.18	3,674.14	3,857.84	4,050.73	
12" Turbine	3,723.91	4,021.82	4,343.57	4,604.18	4,834.39	5,076.11	5,329.92	
Usage Charge -- Gallons								
- 10,000	1.35	1.46	1.57	1.67	1.75	1.84	1.93	
10,001 18,700	2.03	2.19	2.37	2.51	2.64	2.77	2.91	
18,701 Above	3.04	3.28	3.55	3.76	3.95	4.14	4.35	
Usage Charge -- Cubic Feet								
- 1,337	1.14	1.23	1.33	1.41	1.48	1.55	1.63	
1,338 2,500	1.57	1.70	1.83	1.94	2.04	2.14	2.25	
2,501 Above	2.81	3.03	3.28	3.47	3.65	3.83	4.02	
Water Outside Town Limits								
Base Charge								
5/8" Outside	\$ 29.04	\$ 31.36	\$ 33.87	\$ 35.90	\$ 37.70	\$ 39.58	\$ 41.56	
1" Outside	48.40	52.27	56.45	59.84	62.83	65.97	69.27	
1 1/2" Outside	121.02	156.82	169.36	179.52	188.50	197.92	207.82	
2" Outside	193.64	209.13	225.86	239.41	251.38	263.95	277.15	
3" Compound	309.83	334.62	361.39	383.07	402.22	422.33	443.45	
3" Turbine	332.17	358.74	387.44	410.69	431.22	452.79	475.42	
4" Compound	484.11	522.84	564.67	598.55	628.47	659.90	692.89	
4" Turbine	580.93	627.40	677.60	718.25	754.17	791.87	831.47	
6" Compound	968.22	1,045.68	1,129.33	1,197.09	1,256.95	1,319.79	1,385.78	
6" Turbine	1,266.12	1,367.41	1,476.80	1,565.41	1,643.68	1,725.87	1,812.16	
8" Turbine	2,323.71	2,509.61	2,710.38	2,873.00	3,016.65	3,167.48	3,325.85	
10" Turbine	3,679.22	3,973.56	4,291.44	4,548.93	4,776.38	5,015.19	5,265.95	
12" Turbine	4,572.60	4,938.41	5,333.48	5,653.49	5,936.16	6,232.97	6,544.62	
Usage Charge -- Gallons								
- 10,000	1.75	1.90	2.05	2.17	2.28	2.39	2.51	
10,001 18,700	2.64	2.85	3.08	3.26	3.43	3.60	3.78	
18,701 Above	3.95	4.27	4.61	4.89	5.13	5.39	5.66	
Usage Charge -- Cubic Feet								
- 1,337	1.45	1.57	1.69	1.79	1.88	1.98	2.08	
1,338 2,500	2.02	2.18	2.36	2.50	2.62	2.75	2.89	
2,501 Above	3.57	3.86	4.16	4.41	4.63	4.87	5.11	

Table ES-15

TOWN OF FLORENCE		WASTEWATER Utility -- Recommended Rate Plan						
Scen:	2018 02 28 Scenario 2 -- Add Resid Tier							
	Prior	Effective May-18	Effective Apr-19	Effective Apr-20	Effective Apr-21	Effective Apr-22	Effective Apr-23	
Residential								
Base Charge	\$ 18.55	\$ 19.11	\$ 19.68	\$ 20.66	\$ 22.32	\$ 23.66	\$ 24.37	
Usage Charge	4.35	4.48	4.61	4.85	5.23	5.55	5.71	
Commercial								
Base Charge	18.55	19.11	19.68	20.66	22.32	23.66	24.37	
Usage Charge	4.37	4.50	4.64	4.87	5.26	5.57	5.74	
Non-Residential								
Base Charge	18.55	19.11	19.68	20.66	22.32	23.66	24.37	
Usage Charge	4.37	4.50	4.64	4.87	5.26	5.57	5.74	
Institutional								
Base Charge	18.55	19.11	19.68	20.66	22.32	23.66	24.37	
Usage Charge	6.94	7.15	7.36	7.73	8.35	8.85	9.12	

Table ES-16

TOWN OF FLORENCE		WATER AND WASTEWATER Utility -- Impact of Rate Plan on Monthly Charges					
Scen:	2018 02 28 Scenario 2 -- Add Resid Tier						
	Current	Effective May-18	Effective Apr-19	Effective Apr-20	Effective Apr-21	Effective Apr-22	Effective Apr-23
Monthly Gallons							
Water							
5,000	\$ 70.59	\$ 72.93	\$ 76.68	\$ 80.86	\$ 86.25	\$ 91.05	\$ 94.57
		2.34	3.76	4.17	5.39	4.80	3.52
10,000	\$ 100.29	\$ 106.29	\$ 111.60	\$ 117.64	\$ 125.59	\$ 132.62	\$ 137.67
		6.00	5.31	6.04	7.96	7.03	5.05
20,000	\$ 167.24	\$ 183.93	\$ 193.21	\$ 203.68	\$ 217.39	\$ 229.53	\$ 238.31
		16.69	9.28	10.47	13.71	12.14	8.78
30,000	\$ 250.93	\$ 277.98	\$ 292.54	\$ 308.51	\$ 328.92	\$ 347.16	\$ 360.72
		27.05	14.56	15.97	20.41	18.24	13.56

Table ES-17

TOWN OF FLORENCE		WATER Utility -- Recommended Rate Plan						
Scen: 2018 02 28 Scenario 3 -- Securing Future Water								
	Current	Effective May-18	Effective Apr-19	Effective Apr-20	Effective Apr-21	Effective Apr-22	Effective Apr-23	
Water Inside Town Limits								
<u>Base Charge</u>								
5/8" Inside	\$ 22.34	\$ 24.13	\$ 26.06	\$ 27.62	\$ 29.00	\$ 30.45	\$ 31.97	
1" Inside	37.24	40.22	43.44	46.04	48.35	50.76	53.30	
1 1/2" Inside	93.10	120.64	130.29	138.10	145.01	152.26	159.87	
2" Inside	148.95	160.87	173.74	184.16	193.37	203.04	213.19	
3" Compound	238.34	257.41	278.00	294.68	309.41	324.88	341.13	
3" Turbine	260.68	281.53	304.06	322.30	338.42	355.34	373.10	
4" Compound	372.39	402.18	434.36	460.42	483.44	507.61	532.99	
4" Turbine	469.21	506.75	547.29	580.12	609.13	639.59	671.57	
6" Compound	744.78	804.36	868.71	920.83	966.88	1,015.22	1,065.98	
6" Turbine	1,042.69	1,126.11	1,216.19	1,289.17	1,353.62	1,421.30	1,492.37	
8" Turbine	1,787.47	1,930.47	2,084.91	2,210.00	2,320.50	2,436.52	2,558.35	
10" Turbine	2,830.17	3,056.58	3,301.11	3,499.18	3,674.14	3,857.84	4,050.73	
12" Turbine	3,723.91	4,021.82	4,343.57	4,604.18	4,834.39	5,076.11	5,329.92	
<u>Securing Future Water</u>	-	\$ 1.50	\$ 1.62	\$ 1.72	\$ 1.80	\$ 1.89	\$ 1.99	
<u>Usage Charge -- Gallons</u>								
- 10,000	1.35	1.46	1.57	1.67	1.75	1.84	1.93	
10,001 18,700	2.03	2.19	2.37	2.51	2.64	2.77	2.91	
18,701 Above	3.04	3.28	3.55	3.76	3.95	4.14	4.35	
<u>Usage Charge -- Cubic Feet</u>								
- 1,337	1.14	1.23	1.33	1.41	1.48	1.55	1.63	
1,338 2,500	1.57	1.70	1.83	1.94	2.04	2.14	2.25	
2,501 Above	2.81	3.03	3.28	3.47	3.65	3.83	4.02	
Water Outside Town Limits								
<u>Base Charge</u>								
5/8" Outside	\$ 29.04	\$ 31.36	\$ 33.87	\$ 35.90	\$ 37.70	\$ 39.58	\$ 41.56	
1" Outside	48.40	52.27	56.45	59.84	62.83	65.97	69.27	
1 1/2" Outside	121.02	156.82	169.36	179.52	188.50	197.92	207.82	
2" Outside	193.64	209.13	225.86	239.41	251.38	263.95	277.15	
3" Compound	309.83	334.62	361.39	383.07	402.22	422.33	443.45	
3" Turbine	332.17	358.74	387.44	410.69	431.22	452.79	475.42	
4" Compound	484.11	522.84	564.67	598.55	628.47	659.90	692.89	
4" Turbine	580.93	627.40	677.60	718.25	754.17	791.87	831.47	
6" Compound	968.22	1,045.68	1,129.33	1,197.09	1,256.95	1,319.79	1,385.78	
6" Turbine	1,266.12	1,367.41	1,476.80	1,565.41	1,643.68	1,725.87	1,812.16	
8" Turbine	2,323.71	2,509.61	2,710.38	2,873.00	3,016.65	3,167.48	3,325.85	
10" Turbine	3,679.22	3,973.56	4,291.44	4,548.93	4,776.38	5,015.19	5,265.95	
12" Turbine	4,572.60	4,938.41	5,333.48	5,653.49	5,936.16	6,232.97	6,544.62	
<u>Securing Future Water</u>	-	\$ 1.95	\$ 2.11	\$ 2.23	\$ 2.34	\$ 2.46	\$ 2.58	
<u>Usage Charge -- Gallons</u>								
- 10,000	1.75	1.90	2.05	2.17	2.28	2.39	2.51	
10,001 18,700	2.64	2.85	3.08	3.26	3.43	3.60	3.78	
18,701 Above	3.95	4.27	4.61	4.89	5.13	5.39	5.66	
<u>Usage Charge -- Cubic Feet</u>								
- 1,337	1.45	1.57	1.69	1.79	1.88	1.98	2.08	
1,338 2,500	2.02	2.18	2.36	2.50	2.62	2.75	2.89	
2,501 Above	3.57	3.86	4.16	4.41	4.63	4.87	5.11	

Table ES-18

TOWN OF FLORENCE		WASTEWATER Utility -- Recommended Rate Plan						
Scen:	2018 02 28 Scenario 3 -- Securing Future Water							
	Prior	Effective May-18	Effective Apr-19	Effective Apr-20	Effective Apr-21	Effective Apr-22	Effective Apr-23	
Residential								
Base Charge	\$ 18.55	\$ 19.11	\$ 19.68	\$ 20.66	\$ 22.32	\$ 23.66	\$ 24.37	
Usage Charge	4.35	4.48	4.61	4.85	5.23	5.55	5.71	
Commercial								
Base Charge	18.55	19.11	19.68	20.66	22.32	23.66	24.37	
Usage Charge	4.37	4.50	4.64	4.87	5.26	5.57	5.74	
Non-Residential								
Base Charge	18.55	19.11	19.68	20.66	22.32	23.66	24.37	
Usage Charge	4.37	4.50	4.64	4.87	5.26	5.57	5.74	
Institutional								
Base Charge	18.55	19.11	19.68	20.66	22.32	23.66	24.37	
Usage Charge	6.94	7.15	7.36	7.73	8.35	8.85	9.12	

Table ES-19

TOWN OF FLORENCE		WATER AND WASTEWATER Utility -- Impact of Rate Plan on Monthly Charges						
Scen:	2018 02 28 Scenario 3 -- Securing Future Water							
	Current	Effective May-18	Effective Apr-19	Effective Apr-20	Effective Apr-21	Effective Apr-22	Effective Apr-23	
Monthly Gallons								
Water								
5,000	\$ 70.59	\$ 74.43 3.84	\$ 78.30 3.88	\$ 82.58 4.27	\$ 88.05 5.48	\$ 92.94 4.89	\$ 96.56 3.62	
10,000	100.29	107.79 7.50	113.22 5.43	119.35 6.13	127.39 8.04	134.51 7.12	139.65 5.14	
20,000	168.13	185.43 17.30	194.83 9.40	205.40 10.57	219.19 13.80	231.42 12.23	240.30 8.88	
30,000	250.93	279.48 28.55	294.16 14.68	310.23 16.07	330.72 20.49	349.05 18.33	362.70 13.65	

Table ES-20

TOWN OF FLORENCE		WATER AND WASTEWATER RESIDENTIAL RATE SCENARIO MONTHLY BILL COMPARISONS					
		Current	Effective May-18	Effective Apr-19	Effective Apr-20	Effective Apr-21	Effective Apr-22
Gallons							
4,000	Scen 1 - Status Quo	\$ 64.65	\$ 68.02	\$ 71.62	\$ 75.53	\$ 80.51	\$ 84.97
	Scen 2 - Add Residential Tier		66.99	70.50	74.37	79.26	83.66
	Scen 3 - Securing Future Water		68.49	72.12	76.06	81.07	85.55
5,000	Scen 1 - Status Quo	\$ 70.59	\$ 74.22	\$ 78.08	\$ 82.34	\$ 87.81	\$ 92.68
	Scen 2 - Add Residential Tier		72.93	76.68	80.86	86.25	91.05
	Scen 3 - Securing Future Water		74.43	78.30	82.58	88.05	92.94
10,000	Scen 1 - Status Quo	\$ 100.29	\$ 105.21	\$ 110.43	\$ 116.40	\$ 124.29	\$ 131.25
	Scen 2 - Add Residential Tier		106.29	111.60	117.64	125.59	132.62
	Scen 3 - Securing Future Water		107.79	113.22	119.35	127.39	134.51
20,000	Scen 1 - Status Quo	\$ 168.13	\$ 176.30	\$ 184.97	\$ 194.94	\$ 208.22	\$ 219.90
	Scen 2 - Add Residential Tier		183.93	193.21	203.68	217.39	229.53
	Scen 3 - Securing Future Water		185.43	194.83	205.40	219.19	231.42

Section I

SECTION I

Introduction

Background



In May 2017 the Town of Florence, Arizona (“the Town”) engaged **Willdan Financial Services (WFS)** to conduct an update to its 2012 Water and Wastewater Rate Study and Long-Term Financial Plan. The Town 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 water and wastewater operating and capital costs for the test year and a period ten-years into the future.
- An estimate of current and forecast accounts, volumes and billing units for the ten-year forecast period
- A review of the adequacy and appropriateness of existing water and wastewater customer classes
- A thorough engineering assessment, review and update of the water and wastewater system’s known capital improvement needs, as well as a determination of the need for funding capital requirements through the issuance of long-term debt
- An evaluation of the current water and wastewater rate structures and revenue recovered versus the revenue requirement, both overall and for each customer class
- The development of a rate structure that would recover the Town’s cost of service, ensure equitable, just and reasonable treatment of identified customer classes, and maintain critical financial ratios
- A cost allocation assessment to ensure that the water and wastewater fund is paying its fair share to the General Fund. A review of the Town’s current methodology for making this transfer and provide input on alternatives for compensating the General Fund for the indirect support services provided to the water and wastewater utilities.

The analysis and recommendations presented in this study achieve all of the objectives outlined.

In conjunction with Town staff, the project team evaluated several alternative rate structures, all of which would enable the Town to achieve these objectives while continuing to provide ratepayers with a superior quality of municipal water and wastewater service. After a series of meetings with Town officials at which these objectives and rate scenarios were thoroughly analyzed, the project team is presenting three alternative rate scenarios for the water and wastewater utilities.

Report Organization

This report is organized into the following sections:

Section I – Introduction - outlines objectives and scope of this rate study and long-term financial plan. Also presents the Town's current rate structure and a comparison of the Town's water and wastewater charges with other Arizona cities.

Section II – Water and Wastewater Test Year and Forecast Volumes – analyzes the Town'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 Town's current water and wastewater utility cost structure. The total current or "test year" revenue requirements are developed, and costs are functionalized. Using the test year as a basis, costs are forecast for a ten-year period.

Section IV – Water and Wastewater Rate Design – Presents the final rate recommendation for the Town, which would enable it to meet its revenue requirements over the next decade. Also presents an analysis of the impact of these rate scenarios on each defined customer class.

Appendix A – presents a hard copy printout of the interactive Microsoft Excel spreadsheet model developed for the Town to calculate water and wastewater current and future revenue requirements. The model automatically generates all calculations based on a set of defined user inputs.

Appendix B – presents a hard copy printout of the City's cost allocation model. The first page of the model summarizes the project team's findings and proposed annual cost allocations.

Water and Wastewater Current Rates

Table I-1 and **Table I-2** summarize the Town's current water and wastewater rate structure. The rates were adopted in September 2014 and have not been adjusted since that time.

Table I-1

TOWN OF FLORENCE		
Current Water Rates Effective 9/1/2014		
	<u>Inside Municipality</u>	<u>Outside Municipality</u>
Monthly Service Charge:		
5/8"-3/4" Meter	\$ 22.34	\$ 29.04
1" Meter	37.24	48.40
1 1/2" Meter	93.10	121.02
2" Meter	148.95	193.64
3" Compound	238.34	309.83
3" Turbine	260.68	332.17
4" Compound	372.39	484.11
4" Turbine	469.21	580.93
6" Compound	744.78	968.22
6" Turbine	1,042.69	1,266.12
8" Turbine	1,787.47	2,323.71
Monthly Consumption Rate per 1,000 Gallons/100 Cubic Feet:		
0 - 10,000 gallons	1.59	2.04
10,001 to 18,700 gallons	2.21	2.83
Over 18,700 gallons	3.93	5.01
Under 1,337 cubic feet	1.19	1.53
1,337 to 2,500 cubic feet	1.65	2.12
Over 2,500 cubic feet	2.95	3.75

Table I-2

TOWN OF FLORENCE		
Current Monthly Wastewater Rates Effective 9/1/2014		
	<u>Monthly Rate Per CCF</u>	<u>Monthly Rate Per 1,000 Gal</u>
Monthly Service Fee (all ratepayers)		\$ 18.55
Residential	\$3.25	\$ 4.35
Commercial	\$3.27	\$ 4.37
Institutional	\$5.19	\$ 6.94
Outside Municipality (Resential)	\$3.25	\$4.35

The monthly service charge for all water accounts includes a monthly base charge based on the size and type of meter serving the customer. Residential customers are comprised 93% of the Town's water connections with a 5/8"-3/4" meter size and are currently charged a base charge of \$22.34 per month if they are inside the municipality and \$29.04 if they are outside. Commercial class customers who have a larger meter size are assessed a larger base charge commensurate with their respective meter size.

All Town customers are charged a rate dependent on their meter size and volume usage. The majority of Town customers are billed based on 1,000 gallons usage while some customers have cubic foot meters and are billed using cubic feet as the measure of their usage. These cubic foot meters are being phased out and within the next 5 years all customers are expected to be billed using gallons as the measure of their variable usage. Table I-1 reflects the rate charged to customers by meter size based on whether they are billed using gallons or cubic feet.

The Town charges all residential, commercial, and institutional accounts a combination of a fixed monthly sewer charge and a usage-based volume rate. All accounts are charged a monthly base charge of \$18.55. Once again, there are two billing protocols utilizing gallons and cubic feet as the measuring stick for usage. As with water billing, the Town plans to phase out the use of cubic feet over the next 5 years. Usage charges for residential, commercial, and institutional customers are reflected in Table I-2.

Water and Wastewater Rate Comparison

Table I-3 compares Florence's monthly water and wastewater charges to nine cities or utilities located in Pinal County, Arizona. The average residential user in the Town consumes approximately 3,400 gallons monthly. This is a decrease of almost 18% over the past 6 years. A volume of 4,000 gallons water was used for the residential comparison as requested by Town Staff to reflect the typical usage levels for an average household.

The rate data is based on the Water Infrastructure Finance Authority of Arizona's (WIFA) 2017 Water and Wastewater Rates Dashboard, and the Johnson Utilities website for the CAGR Adjuster Fee. These rates do not include sales tax, activation or other charges beyond the monthly base and volume charges, other than for Johnson Utilities. Additionally, where appropriate, certain cities that charge for service based on cubic feet of water have had their rates converted to an equivalent charge per 1,000 gallons. The table reveals that the Town's rates are slightly above the state average and below several similarly-sized cities.

Table I-3

Town of Florence				
Total Monthly Residential Charges for 4,000 Gallons Water and Wastewater				
	2016 Population	4,000 Gallons Water	4,000 Gallons Wastewater	TOTAL
Florence	25,779	\$ 28.70	\$ 35.95	\$ 64.65
Apache Junction *	39,954	30.48	43.35	73.83
Apache Junction Water Dist	39,954	36.86	43.35	80.21
Casa Grande *	54,534	28.76	33.70	62.46
Coolidge *	12,528	28.76	17.15	45.91
Eloy	17,442	31.37	50.64	82.01
Johnson Utilities-Phoenix AMA**	NA	40.74	40.98	81.72
Johnson Utilities-Pinal AMA **	NA	33.70	40.98	74.68
Picacho Water & Sewer	NA	27.00	42.00	69.00
Queen Creek	35,524	23.64	27.61	51.25

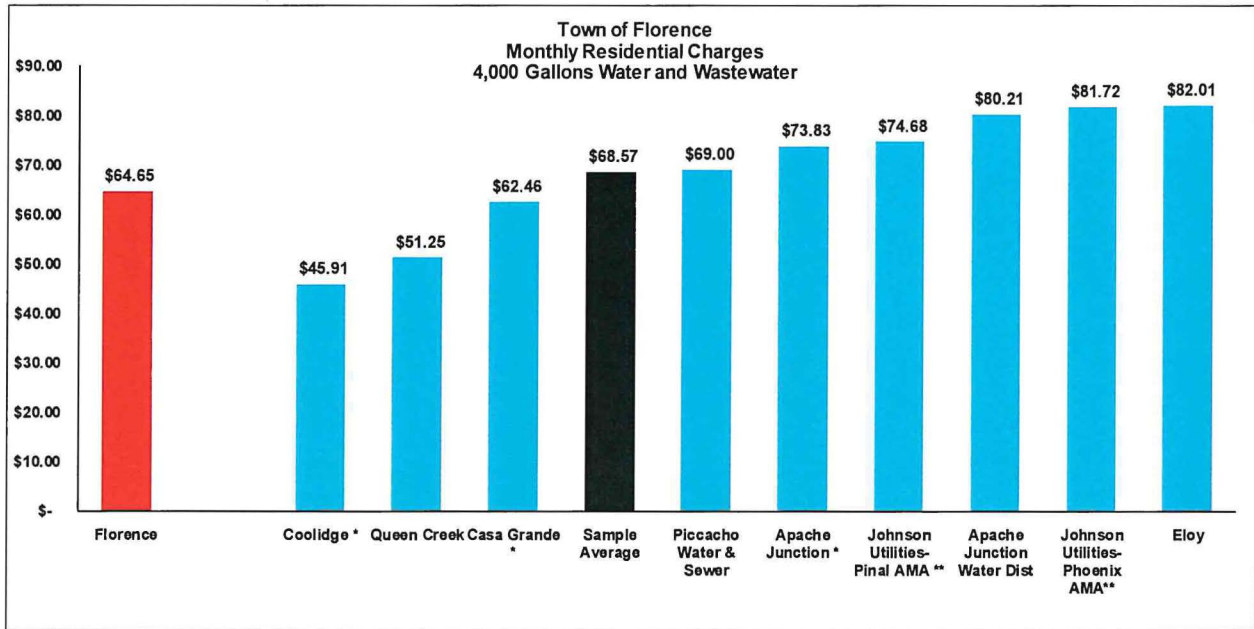
Source: 2017 WIFA Water and WW Rates Dashboard

[^] Served by Arizona Water
^{**} Includes CAGR D Adjuster Fee

This type of comparison may have the unintended effect of discriminating against communities who choose to finance system expansions through current rates or revenue bonds, which are included in rates, as opposed to those who utilize general obligation bonds, which are funded through taxes. All else being equal, a Town that primarily or exclusively uses general obligation bonds will have a lower water rate per 1,000 gallons but a higher tax rate.

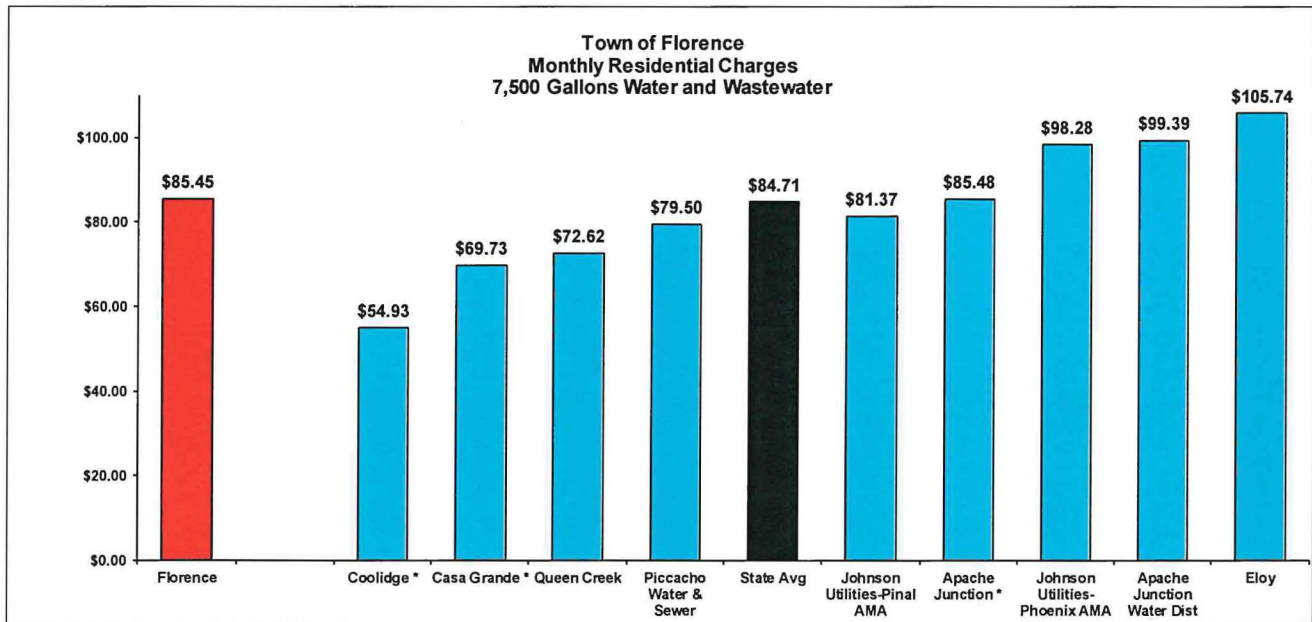
With these caveats in mind, **Chart I-4** presents a graphic comparison of residential water and wastewater monthly charges for 4,000 gallons.

Chart I-4



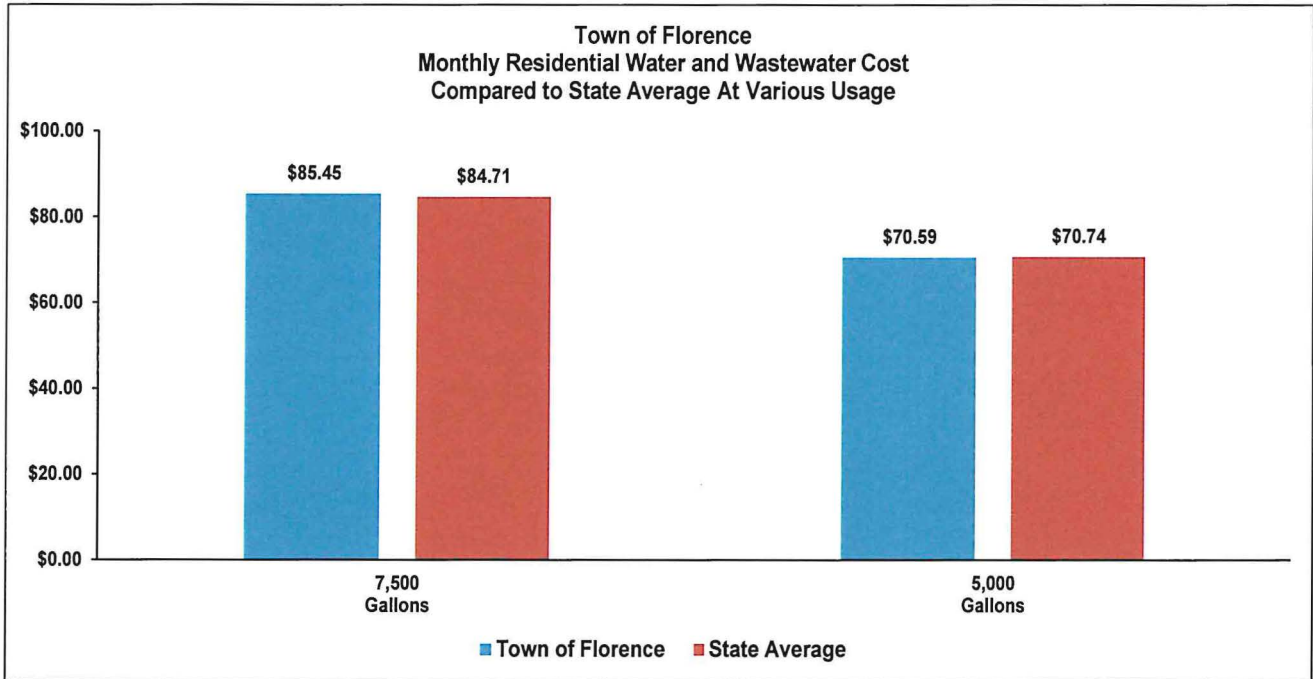
The industry standard generally used for average monthly residential usage being approximately 7,500 gallons, **Chart I-5** presents a graphic comparison of residential water and wastewater monthly charges for 7,500 gallons.

Chart I-5



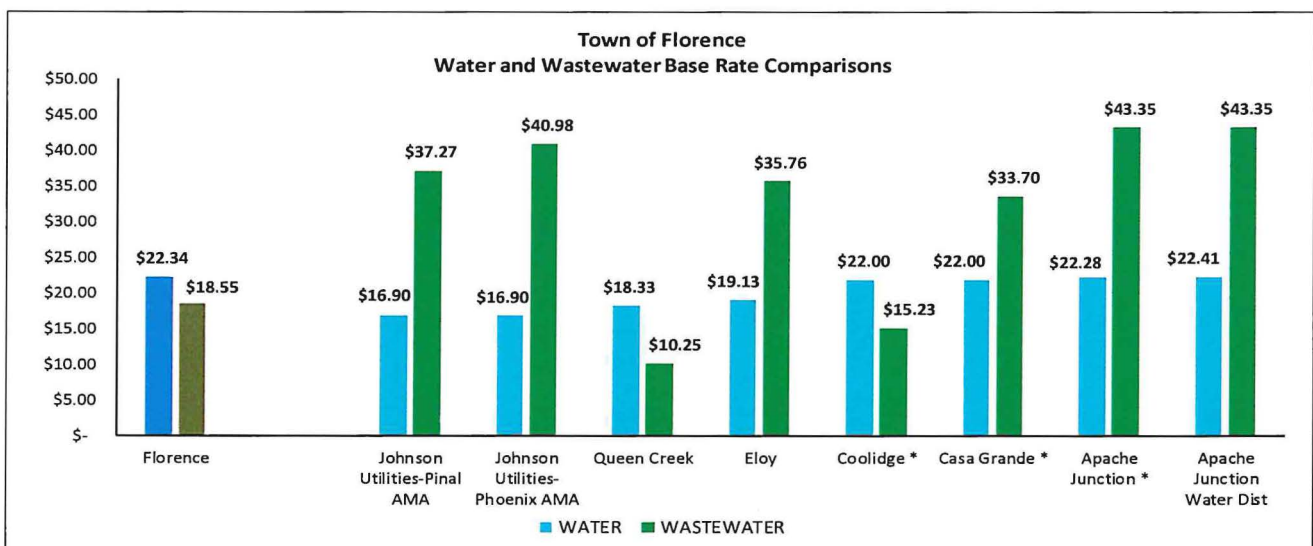
Another way to depict the comparison of Town of Florence to the State Average is illustrated in **Chart I-6** below.

Chart I-6



An analysis was completed on the comparison of the Town's water and wastewater base rates to those of surrounding communities. **Chart I-7** details the base rates charged by comparable cities for water and wastewater. This comparison shows that the Town is within 2% of the sample average for water base rate and 48% less than the sample average for the wastewater base rate. This averages out to the Town's combined water and wastewater base charges being 29% less than the sample average and 21% less than the state average for water and wastewater base charges.

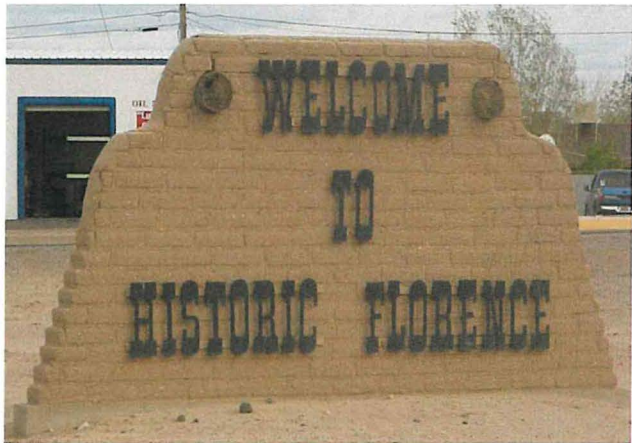
Chart I-7



Section II

SECTION II

Water and 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 Town of Florence, water consumption records maintained by the Town were reviewed for a two-year period dating back to 2014. These records provided information on the monthly water volumes distributed system-wide by account type as well as the number

of accounts by meter size for each month and the associated revenues.

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 Town's rate classifications. The project team finds these customer class distinctions to be reasonable and appropriate for the Town of Florence, meeting the criteria of homogenous groups with similar usage patterns. However, the project team notes that the Town is moving forward with its plans to phase out its cubic foot meters and classifications over the next five years and consolidate all of its ratepayers into gallon-based customer classes.

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

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

The Town's water customer classes by meter size are listed in **Table II-1**. The Town has provided the project team with account data for all months from May 2014 through April 2017. The project team has used the April 2017 data as the basis for the test year.

The table lists all accounts by meter size both inside and outside the Town of Florence. Water cubic foot and gallon-based meters are added together for each meter size. As of April 2017, the Town maintained 3,579 gallon meters (79.87%) and 828 cubic foot meters (23.13%).

Table II-1

TOWN OF FLORENCE		
WATER Customers -- April 2017		
1	5/8" Inside	3,330
2	5/8" Outside	44
3	1" Inside	85
4	1" Outside	4
5	1 1/2" Inside	3
6	1 1/2" Outside	1
7	2" Inside	87
8	2" Outside	1
9	3" Compound	7
10	3" Turbine	1
11	3" Turbine-Out	2
12	4" Compound	2
13	4" Turbine	3
14	6" Turbine	3
15	8" Turbine	2
16	CCA	4
Total		3,579

Table II-2 details the growth projections used by the project team for the Town's water customers beginning in the Test Year and continuing through Fiscal Year 2027.

Table II-2

TOWN OF FLORENCE																	
FORECAST TOTAL CUSTOMERS																	
WATER Customer Classes																	
	5/8" Inside	5/8" Outside	1" Inside	1" Outside	1 1/2" Inside	1 1/2" Outside	2" Inside	2" Outside	3" Compound	3" Turbine	3" Turbine-Out	4" Compound	4" Turbine	6" Turbine	8" Turbine	CCA	Total
WATER Total Customers																	
TY 2018	3,337	44	86	4	3	1	90	1	7	1	2	2	3	3	2	4	3,590
2019	3,344	44	87	4	3	1	93	1	7	1	2	2	3	3	2	4	3,601
2020	3,351	44	88	4	3	1	96	1	7	1	2	2	3	3	2	4	3,612
2021	3,376	44	89	4	3	1	99	1	7	1	2	2	3	3	2	4	3,641
2022	3,401	44	90	4	3	1	102	1	7	1	2	2	3	3	2	4	3,670
2023	3,426	44	91	4	3	1	105	1	7	1	2	2	3	3	2	4	3,699
2024	3,451	44	92	4	3	1	108	1	7	1	2	2	3	3	2	4	3,728
2025	3,476	44	93	4	3	1	111	1	7	1	2	2	3	3	2	4	3,757
2026	3,501	44	94	4	3	1	114	1	7	1	2	2	3	3	2	4	3,786
2027	3,526	44	95	4	3	1	117	1	7	1	2	2	3	3	2	4	3,815
WATER Annual New Customers																	
TY 2018	7	-	1	-	-	-	3	-	-	-	-	-	-	-	-	-	11
2019	7	-	1	-	-	-	3	-	-	-	-	-	-	-	-	-	11
2020	7	-	1	-	-	-	3	-	-	-	-	-	-	-	-	-	11
2021	25	-	1	-	-	-	3	-	-	-	-	-	-	-	-	-	29
2022	25	-	1	-	-	-	3	-	-	-	-	-	-	-	-	-	29
2023	25	-	1	-	-	-	3	-	-	-	-	-	-	-	-	-	29
2024	25	-	1	-	-	-	3	-	-	-	-	-	-	-	-	-	29
2025	25	-	1	-	-	-	3	-	-	-	-	-	-	-	-	-	29
2026	25	-	1	-	-	-	3	-	-	-	-	-	-	-	-	-	29
2027	25	-	1	-	-	-	3	-	-	-	-	-	-	-	-	-	29

As revealed in the tables above, the test year includes the forecast addition of 11 new connections, raising the total to 3,590. Most of the Town’s water accounts are 5/8”-3/4” and thus are predominately residential. Table II-2 reveals that water accounts are forecast to increase by approximately 7 new accounts in FY2019 and 2021 and by 25 accounts annually thru the study period. This translates to an increase in water accounts from 3,590 in the test year to 3,815 in FY 2027, an average annual increase of 0.68%, or a total increase of **5.9%**. It should be noted that this is a highly conservative growth rate that was discussed and agreed upon with staff.

This overall growth is illustrated further in **Chart II-3**.

Chart II-3

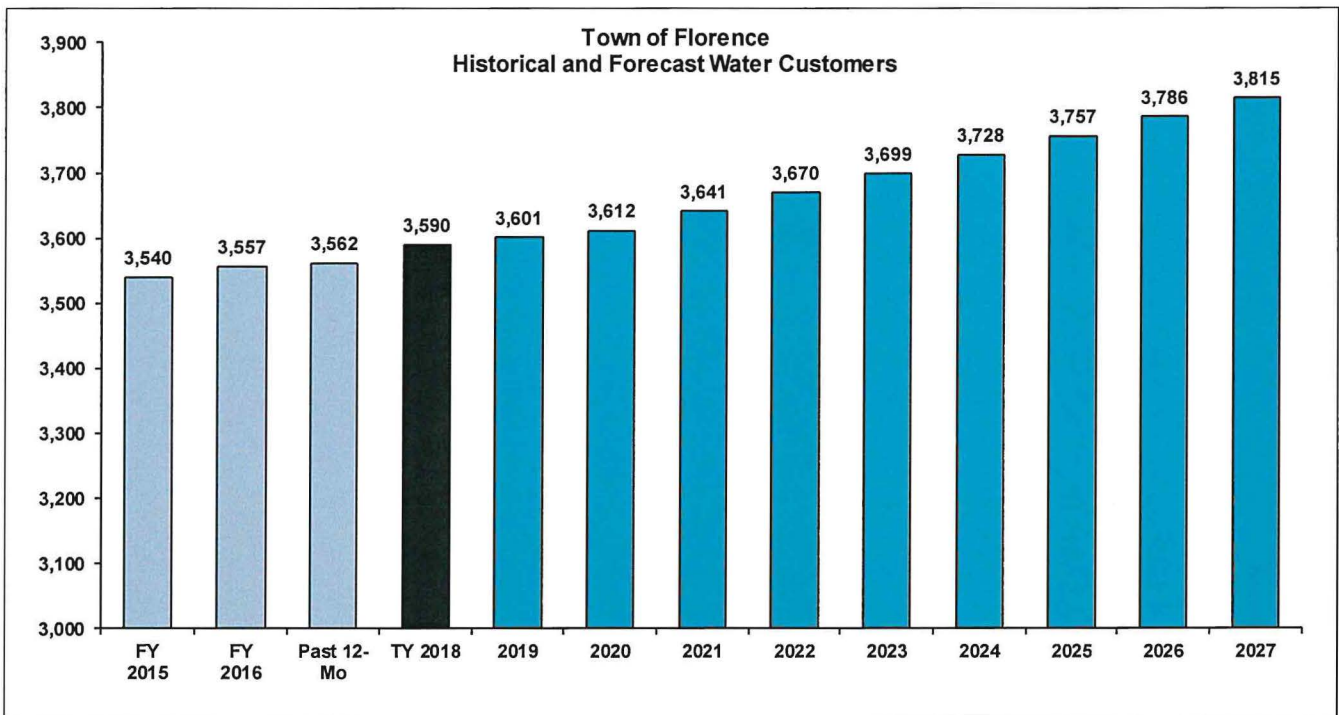


Table II-4 presents the project team’s ten-year forecast of wastewater account growth. It reveals that the wastewater customer base will also remain primarily residential, and is forecast to increase by 10 accounts per year through FY 2020 and 28 new accounts annually for the remainder of the forecast period. Wastewater accounts are forecast to increase from 2,930 in the test year to 23,146 in FY 2027, for an average annual increase of 0.79% and overall increase of 6.87%. As with the water tables, for illustrative purposes gallon and cubic foot meters have been added together for each customer class.

Table II-4

TOWN OF FLORENCE						
FORECAST TOTAL CUSTOMERS WASTEWATER Customer Classes						
	Residential	Commercial	Non-Residential	Institutional	Other	Total
WASTEWATER Total Customers						
TY 2018	2,667	228	16	19	-	2,930
2019	2,674	231	16	19	-	2,940
2020	2,681	234	16	19	-	2,950
2021	2,706	237	16	19	-	2,978
2022	2,731	240	16	19	-	3,006
2023	2,756	243	16	19	-	3,034
2024	2,781	246	16	19	-	3,062
2025	2,806	249	16	19	-	3,090
2026	2,831	252	16	19	-	3,118
2027	2,856	255	16	19	-	3,146
WASTEWATER Annual New Customers						
TY 2018	7	3	-	-	-	10
2019	7	3	-	-	-	10
2020	7	3	-	-	-	10
2021	25	3	-	-	-	28
2022	25	3	-	-	-	28
2023	25	3	-	-	-	28
2024	25	3	-	-	-	28
2025	25	3	-	-	-	28
2026	25	3	-	-	-	28
2027	25	3	-	-	-	28

Historical and Current Water Consumption

The project team reviewed the Town's water consumption data for the period May 2014 through April 2017. **Table II-5** presents total water consumption by customer class, percent of total usage and monthly average usage by meter size. Town data for cubic foot meters has been converted to gallons for the purposes of this exhibit. As expected the 5/8" and CCA meters account for over 60% of total consumptions.

Table II-5

TOWN OF FLORENCE		
Past 12 Months Consumption and Average Usage By Meter Size		
	Past 12-mo Consumption (Gallons)	Percent of Total Usage
5/8" Inside	136,494,475	28.63%
5/8" Outside	2,270,068	0.48%
1" Inside	14,506,396	3.04%
1" Outside	509,061	0.11%
1 1/2" Inside	1,521,700	0.32%
1 1/2" Outside	273,400	0.06%
2" Inside	58,773,680	12.33%
2" Outside	1,034,200	0.22%
3" Compound	13,411,170	2.81%
3" Turbine	5,380,435	1.13%
3" Turbine-Out	334,700	0.07%
4" Compound	717,900	0.15%
4" Turbine	38,377,070	8.05%
6" Turbine	5,129,361	1.08%
8" Turbine	49,337,200	10.35%
CCA	148,737,135	31.19%
Total	476,807,952	

Water Billed Consumption – Ten-Year Forecast

Table II-6 presents the project team’s ten-year forecast of water consumption in gallons for the Town. Once again data for cubic foot meters has been converted to gallons for the purposes of this exhibit. Consistent with the growth of accounts presented above, the project team has tracked the increase in consumption for the customer classes impacted and grouped the other classes for which growth is not projected.

Despite account growth, consumption levels often decrease when rainfall levels are higher since a portion of water consumption is used for irrigation. Factors such as account growth, existing rate structure and rainfall totals each exercise various degrees of influence over the ultimate level of water consumption. Therefore, the development of the test year for the volume forecast requires that each of these factors be analyzed.

The project team’s forecast is based on the following factors:

- Florence’s account growth is forecast to continue to increase by approximately 0.79% per year. This forecast is conservative in accordance with the preferences of the project team and Town Staff.
- The forecast assumes that there will be no Prison expansion over the forecast period.

Table II-6

TOWN OF FLORENCE										
FORECAST CONSUMPTION - GALLONS WATER by Customer Class (Meter Size)										
	5/8" Inside	5/8" Outside	1" Inside	1" Outside	1 1/2" Inside	1 1/2" Outside	2" Inside	2" Outside	Other Classes	Total
WATER Forecast Volume										
2018	136,494,475	2,270,068	14,506,396	509,061	1,521,700	273,400	58,773,680	1,034,200	261,424,972	476,807,952
2019	136,637,636	2,270,068	14,590,736	509,061	1,521,700	273,400	59,753,241	1,034,200	261,424,972	478,015,014
2020	136,780,648	2,270,068	14,674,590	509,061	1,521,700	273,400	60,717,003	1,034,200	261,424,972	479,205,643
2021	137,290,871	2,270,068	14,757,969	509,061	1,521,700	273,400	61,665,707	1,034,200	261,424,972	480,747,948
2022	137,799,205	2,270,068	14,840,879	509,061	1,521,700	273,400	62,600,035	1,034,200	261,424,972	482,273,520
2023	138,305,671	2,270,068	14,923,328	509,061	1,521,700	273,400	63,520,624	1,034,200	261,424,972	483,783,024
2024	138,810,289	2,270,068	15,005,324	509,061	1,521,700	273,400	64,428,062	1,034,200	261,424,972	485,277,076
2025	139,313,079	2,270,068	15,086,875	509,061	1,521,700	273,400	65,322,896	1,034,200	261,424,972	486,756,251
2026	139,814,061	2,270,068	15,167,987	509,061	1,521,700	273,400	66,205,638	1,034,200	261,424,972	488,221,087
2027	140,313,255	2,270,068	15,248,668	509,061	1,521,700	273,400	67,076,765	1,034,200	261,424,972	489,672,088

Table II-7 presents average consumption by meter size by month. The table reveals that 5/8" meters, which represent residential accounts, have a very low monthly total of 3,416 gallons. This total represents an 18.24% decline from the average monthly residential usage in 2012.

Table II-7

TOWN OF FLORENCE	
Average Monthly Usage by Meter Size May 2016 - April 2017	
	Avg Usgae by Meter Size
5/8" Inside	3,416
5/8" Outside	4,299
1" Inside	14,222
1" Outside	10,605
1 1/2" Inside	42,269
1 1/2" Outside	22,783
2" Inside	56,297
2" Outside	86,183
3" Compound	159,657
3" Turbine	448,370
3" Turbine-Out	13,946
4" Compound	29,913
4" Turbine	1,066,030
6" Turbine	142,482
8" Turbine	2,055,717
CCA	3,098,690

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 peaking requirements of a water utility's customers are an important influence on the utility's costs. Because water utilities attempt to meet all of the demands of their customers, water systems are sized to meet customers' peak requirements. Therefore, during off-peak periods, there are costs associated with the unused capacity of the system. Ratemaking guidelines direct that these costs must be allocated to customers in proportion to the contribution of each customer class to the system peak. 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 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 use 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 actual monthly water consumption by customer class for the recent twelve-month period, May 2016 – April 2017. The calculations of the monthly peaking factors by class are shown in **Table II-8**. While some classes had higher than normal peaking factors, the project team has assumed that they are due to monthly accounting fluctuations and are not truly representative of the true peak to average ratio. The combined peak day to average ratio used in the rate model is **2.0**.

Table II-8

TOWN OF FLORENCE				
Water Consumption and Peak to Average Ratios				
	Last 12 Months Consumption	Monthly Average	Peak Month	Peak/Avg Ratio
5/8" Inside	136,494,475	11,374,540	14,066,258	1.24
5/8" Outside	2,270,068	189,172	265,431	1.40
1" Inside	14,506,396	1,208,866	1,903,804	1.57
1" Outside	509,061	42,422	88,170	2.08
1 1/2" Inside	1,521,700	126,808	177,700	1.40
1 1/2" Outside	273,400	22,783	86,300	3.79
2" Inside	58,773,680	4,897,807	7,383,884	1.51
2" Outside	1,034,200	86,183	177,000	2.05
3" Compound	13,411,170	1,117,598	2,408,473	2.16
3" Turbine	5,380,435	448,370	809,600	1.81
3" Turbine-Out	334,700	27,892	184,100	6.60
4" Compound	717,900	59,825	116,300	1.94
4" Turbine	38,377,070	3,198,089	3,565,490	1.11
6" Turbine	5,129,361	427,447	700,300	1.64
8" Turbine	49,337,200	4,111,433	4,890,800	1.19
CCA	148,737,135	427,447	700,300	1.16
Total	476,807,952	39,733,996	48,459,052	1.22

Wastewater Flows – Test Year and Forecast

Like many cities across the country, the Town uses monthly water sales as a basis for determining wastewater billing units for a majority of its wastewater accounts. All customers are charged a flat rate of \$18.55 regardless of their water consumption. The forecast for billing units is derived using anticipated growth in accounts as depicted in Table II-4. The results of the forecast are presented in **Table II-9**.

Two points are notable about this table. First, many water accounts do not return wastewater to the system, particularly if they are outside Town limits and are currently using a septic system. Second, wastewater usage is not subject to the significant fluctuations experienced by water accounts. This is because the water volume fluctuation is due to outdoor usage that is not returned to the wastewater system.

Table II-9

TOWN OF FLORENCE							
FORECAST WASTEWATER BILLING UNITS							
WASTEWATER Customer Classes							
FY	Residential	Commercial	Non-Residential	Institutional	ADOC	CCA	Total
WASTEWATER Forecast Billing Units							
2018	103,149,948	78,330,450	655,181	74,639,008	183,352,340	148,737,135	588,864,063
2019	103,692,843	80,419,262	655,181	74,639,008	183,352,340	148,737,135	591,495,769
2020	103,964,290	81,463,668	655,181	74,639,008	183,352,340	148,737,135	592,811,622
2021	104,933,744	82,508,074	655,181	74,639,008	183,352,340	148,737,135	594,825,483
2022	105,903,199	83,552,480	655,181	74,639,008	183,352,340	148,737,135	596,839,343
2023	106,872,653	84,596,886	655,181	74,639,008	183,352,340	148,737,135	598,853,204
2024	107,842,108	85,641,292	655,181	74,639,008	183,352,340	148,737,135	600,867,064
2025	108,811,562	86,685,698	655,181	74,639,008	183,352,340	148,737,135	602,880,924
2026	109,781,016	87,730,104	655,181	74,639,008	183,352,340	148,737,135	604,894,785
2027	110,750,471	88,774,510	655,181	74,639,008	183,352,340	148,737,135	606,908,645

Wastewater Strengths – Test Year and Forecast

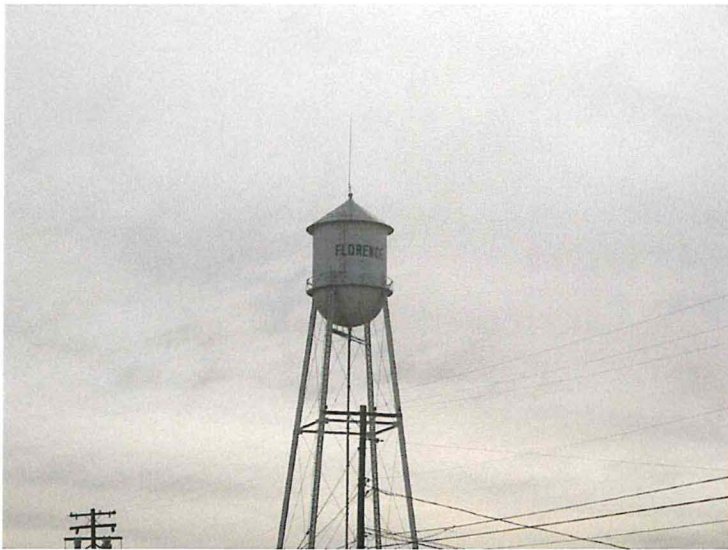
As part of the process of determining the wastewater cost of service by customer class, the project team used sampling data for the Town’s wastewater treatment plants to determine the total pounds of BOD and TSS generated by each customer class. **Table II-10** presents total billing units, BOD and TSS strengths in mg/l, and total pounds of BOD and TSS forecast to be treated by the Town for each of the next ten years. The table separates out volumes, BOD and TSS for the institutional customer class, which incorporates all of the prisons, and the domestic customer classes, which include residential and commercial. Detailed calculations of strength levels are presented in the rate model presented in Appendix A.

Table II-10

TOWN OF FLORENCE					
FORECAST WASTEWATER BILLING UNITS					
WASTEWATER Customer Classes					
FY	Total Billing Units	Total MG/L		Total Lbs	
		BOD	TSS	BOD	TSS
Total System					
2018	590,179,916	150	165	739,848	813,162
2019	591,495,769	150	165	741,498	814,975
2020	592,811,622	150	165	743,147	816,788
2021	594,825,483	150	165	745,672	819,563
2022	596,839,343	150	165	748,196	822,337
2023	598,853,204	150	165	750,721	825,112
2024	600,867,064	150	165	753,245	827,887
2025	602,880,924	150	165	755,770	830,661
2026	604,894,785	150	165	758,295	833,436
2027	606,908,645	150	165	760,819	836,211
Institutional					
2018	406,728,483	151	184	227,639	189,013
2019	406,728,483	151	184	229,288	190,826
2020	406,728,483	151	184	230,938	192,639
2021	406,728,483	151	184	233,462	195,413
2022	406,728,483	151	184	235,987	198,188
2023	406,728,483	151	184	238,511	200,963
2024	406,728,483	151	184	241,036	203,737
2025	406,728,483	151	184	243,561	206,512
2026	406,728,483	151	184	246,085	209,287
2027	406,728,483	151	184	248,610	212,062
Domestic (Residential/Commercial)					
2018	183,451,433	149	124	512,209	624,149
2019	184,767,286	149	124	512,209	624,149
2020	186,083,139	149	124	512,209	624,149
2021	188,096,999	149	125	512,209	624,149
2022	190,110,860	149	125	512,209	624,149
2023	192,124,720	149	125	512,209	624,149
2024	194,138,581	149	126	512,209	624,149
2025	196,152,441	149	126	512,209	624,149
2026	198,166,301	149	127	512,209	624,149
2027	200,180,162	149	127	512,209	624,149

SECTION III

Water & Wastewater Forecast Revenue Requirement



In this section of the rate study and long-term financial plan, the Town of Florence's test year and forecast water and wastewater utility revenue requirements are developed. As noted in Section I, the test year consists of the Town's current fiscal year, July 1 2017 through June 30 2018.

The estimates presented in this section are based on the Town's Council-adopted budget for FY 2018, as well as a forecast of the Town's future capital improvements.

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 Town's user rates. This means that non-rate revenue (such as

connection 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, Florence'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.

The following specific items are included in the Town's revenue requirements raised from rates:

O&M expenses

Operating Transfers

Capital Outlays Funded from Rates

Debt service -- Current

Debt Service – Forecast

All data used in the development of the revenue requirements was obtained from the financial statements, budgets and other information provided by Town staff. The revenue requirements presented in this section are for the rate scenario to be labeled in this study as Scenario1 – “Status Quo”. Rate scenarios are described in further detail in Section IV of this report.

Operating Expenses – Test Year

Table III-1 summarizes the test year FY 2018 operating costs and fund transfers for the Town.

Table III-1

TOWN OF FLORENCE		TEST YEAR OPERATING EXPENSES		
SCENARIO:	2018 02 28 Scenario 1 -- Status Quo	Operating Expenses	Transfers	Total Operating/Transfers
WATER		\$ 1,901,265	\$ 461,770	\$ 2,363,035
WASTEWATER		2,041,754	493,566	2,535,320
TOTAL WATER/WASTEWATER		\$ 3,943,019	\$ 955,336	\$ 4,898,355

As shown in Table III-1, the Town’s operating expenses for its water utility are forecast to be **\$2,363,035** in the test year, and **\$2,535,320** for the wastewater utility. **Table III-2** and **Table III-3** present the FY 2018 operating budget in detail by category. These totals are derived from the Town's FY 2018 budget. General fund transfers are presented separately because these totals are not included for the purposes of calculating debt coverage factors. Capital outlays and debt service are examined separately and in detail later in this section.

Table III-2

TOWN OF FLORENCE			
TEST YEAR OPERATING EXPENSES			
WATER			
SCENARIO:	2018 02 28 Scenario 1 -- Status Quo	Test Year	
	FY 2018 Budget	Consultant Adjustments	FY 2018
PERSONNEL SERVICES			
101.000	Salaries and Wages	\$ 383,031	\$ 383,031
102.000	Part-time Salaries	-	-
103.000	Overtime	40,000	40,000
110.000	Car Allowance	242	242
106.000	Stand-By	7,931	7,931
111.000	AZ Retirement	44,049	44,049
121.000	FICA - Employer's Portion	29,302	29,302
122.000	Unemployment	-	-
123.000	Workers Compensation	11,872	11,872
124.000	Health, Accident & Life Insurance	91,712	91,712
		\$ 608,139	\$ 608,139
CONTRACTUAL SERVICES/MAINT			
201.000	Telephone	6,000	6,000
202.000	Postage	2,500	2,500
203.000	Reproduction/ Printing	4,000	4,000
204.000	Data Processing	-	-
205.000	Legal Publications	942	942
206.000	Liability Insurance	29,704	29,704
207.000	Service Contracts	3,000	3,000
208.000	General Equipment Repair	23,000	23,000
209.000	Vehicle Repair and Maint	8,000	8,000
210.000	Radio Repair and Maint	-	-
211.000	Maintenance Other	10,000	10,000
212.000	Water Charge	-	-
215.000	Electrical Charge	240,000	240,000
217.000	Professional Services	246,000	246,000
218.000	Engineering and Architectural	1,000	1,000
219.000	Financial Audit	7,800	7,800
222.000	Rental Charges	5,000	5,000
230.000	Landfill Charges	20,000	20,000
231.000	Computer Lease	-	-
Total Contractual Services		\$ 606,946	\$ 606,946
COMMODITIES			
301.000	Office Supplies	1,000	1,000
302.000	Operating Supplies	30,000	30,000
304.000	Uniform Allowance	3,500	3,500
305.000	Tires - Batteries, etc.	-	-
306.000	Fuel - Oil	15,000	15,000
308.000	Books	800	800
310.000	Chemicals	8,500	8,500
311.000	Small Tools	3,500	3,500
312.000	Safety Equipment	10,800	10,800
313.000	Training Materials	500	500
315.000	Janitorial Supplies	600	600
316.000	Facilities Maintenance	4,500	4,500
317.000	Land Maintenance	200	200
318.000	Sidewalk Repair and Maintenance	400	400
320.000	Utility Lines Repair and Maintenance	125,000	125,000
321.000	Incidental Medical Supplies	680	680
324.000	Computers/ Printers	1,000	1,000
325.000	Furniture, Fixtures, Equipment	9,000	9,000
		-	-
Total Commodities		\$ 214,980	\$ 214,980
OTHER CHARGES			
401.000	Dues, Subscriptions	2,000	2,000
402.000	Conferences, Business Meetings	400	400
403.000	Training & Development	1,800	1,800
406.000	Water Fees, Assessments, Replace	445,000	445,000
408.000	Other Miscellaneous	22,000	22,000
Total Other Charges		471,200	471,200
Total Water Operating Expense		\$ 1,901,265	\$ 1,901,265

Table III-3

TOWN OF FLORENCE			
TEST YEAR OPERATING EXPENSES WASTEWATER			
SCENARIO:	2018 02 28 Scenario 1 -- Status Quo		
	Budget FY 2018	Consultant Adjustment	Test Year FY 2018
PERSONNEL SERVICES			
101.000 Salaries and Wages	\$345,116	\$ -	\$345,116
102.000 Part-time Salaries	-	-	-
103.000 Overtime	20,000	-	20,000
110.000 Car Allowance	242	-	242
106.000 Stand-By	9,868	-	9,868
111.000 AZ Retirement	39,688	-	39,688
121.000 FICA - Employer's Portion	26,401	-	26,401
122.000 Unemployment	-	-	-
123.000 Workers Compensation	12,000	-	12,000
124.000 Health, Accident & Life Insurance	<u>138,167</u>	-	<u>138,167</u>
Total Personnel Services	\$591,482	\$ -	\$591,482
CONTRACTUAL SERVICES/MAINT			
201.000 Telephone	\$6,850	-	\$6,850
202.000 Postage	200	-	200
203.000 Reproduction/ Printing	200	-	200
204.000 Data Processing	200	-	200
205.000 Legal Publications	600	-	600
206.000 Liability Insurance	3,781	-	3,781
209.000 Vehicle Repair and Maint	15,132	-	15,132
210.000 Radio Repair and Maint	-	-	-
211.000 Maintenance Other	183,000	-	183,000
212.000 Water Charge	52,120	-	52,120
215.000 Electrical Charge	410,000	-	410,000
217.000 Professional Services	193,871	-	193,871
218.000 Engineering and Architectural	35,000	-	35,000
219.000 Financial Audit	6,500	-	6,500
222.000 Rental Charges	15,000	-	15,000
230.000 Landfill Charges	75,000	-	75,000
231.000 Computer Lease	-	-	-
Total Contractual Services	\$1,120,204	\$ -	\$1,120,204
COMMODITIES			
301.000 Office Supplies	\$2,040	-	\$2,040
302.000 Operating Supplies	28,500	-	28,500
304.000 Uniform Allowance	5,100	-	5,100
305.000 Tires - Batteries, etc.	-	-	-
306.000 Fuel - Oil	12,713	-	12,713
308.000 Books	600	-	600
310.000 Chemicals	86,000	-	86,000
311.000 Small Tools	4,100	-	4,100
312.000 Safety Equipment	6,500	-	6,500
313.000 Training Materials	1,250	-	1,250
315.000 Janitorial Supplies	1,200	-	1,200
316.000 Facilities Maintenance	6,000	-	6,000
317.000 Land Maintenance	9,000	-	9,000
318.000 Sidewalk Repair and Manintenance	-	-	-
320.000 Utility Lines Repair and Maintenance	70,000	-	70,000
Total Commodities	\$294,727	\$ -	\$294,727
OTHER CHARGES			
401.000 Dues, Subscriptions	\$1,050	-	\$1,050
402.000 Conferences, Business Meetings	891	-	891
403.000 Training & Development	2,300	-	2,300
408.000 Miscellaneous Charges	30,000	-	30,000
406.000 Water Fees, Assessments, Replace	<u>1,100</u>	-	<u>1,100</u>
Total Other Charges	\$35,341	\$ -	\$35,341
Total WW Operating Expenditures	\$2,041,754	\$ -	\$2,041,754

Operating Expenses – Ten Year Forecast

Table III-4 presents the water and wastewater utility operating expense forecast for the ten-year period FY 2018 – 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 water and wastewater operating expenses are expected to increase at the rate of inflation, which is assumed to be 3.0% per year.
- In addition to anticipated inflationary increases, there are other factors that are taken into account when forecasting various expense items. One such factor is that certain expense categories are expected to increase at rates greater than the average inflation rate. Account growth and volume growth will also affect certain expense categories, and some of the expense items are vulnerable to a combination of these greater than average increases. Items that are considered to be affected by general inflation, premium escalation, and account growth are primarily energy related items such as gas and electric expenses, fuels and lubricants.
- Certain personnel related expenses such as insurance are projected to increase at 6.0% annually.
- Certain water and wastewater expenses are forecast to increase at a rate which takes into account both inflation and the growth of new accounts. As there is a less than 1:1 correlation between account growth and water consumption, a Volume Adjustment factor is calculated for each year relative to the growth in accounts, but discounted by 50% to more accurately align the increased expense of the account growth with the additional cost of service.

Table III-4

TOWN OF FLORENCE							
FORECAST OPERATING EXPENSES AND TRANSFERS							
	WATER		WASTEWATER		TOTAL		
	Operating	Transfer	Operating	Transfer	Operating	Transfer	
2018	\$ 1,901,265	\$ 461,770	\$ 2,041,754	\$ 493,566	\$ 3,943,019	\$ 955,336	
2019	1,972,425	475,623	2,124,998	508,373	4,097,424	983,996	
2020	2,046,557	489,892	2,212,367	523,624	4,258,924	1,013,516	
2021	2,124,724	504,589	2,305,214	539,333	4,429,938	1,043,921	
2022	2,206,097	519,726	2,402,431	555,513	4,608,528	1,075,239	
2023	2,290,968	535,318	2,504,248	572,178	4,795,216	1,107,496	
2024	2,379,510	551,378	2,610,904	589,344	4,990,413	1,140,721	
2025	2,471,900	567,919	2,722,653	607,024	5,194,553	1,174,943	
2026	2,568,327	584,956	2,839,765	625,235	5,408,092	1,210,191	
2027	2,668,970	602,505	2,962,523	643,992	5,631,493	1,246,497	

Capital Outlays and Existing Debt Service

Like most utilities, the Town funds a portion of its capital requirements with its current system rates and fees. These capital outlays are typically for minor assets such as trucks and computers, as opposed to major capital expenditures such as treatment plants.

The Town currently maintains two outstanding loans: a WIFA loan with an original principal balance of \$7,500,000 which was issued for the expansion of the South Wastewater Treatment Plant and a \$1,300,000 loan to finance the Sewer Plant Expansion. The \$7,500,000 loan will be paid off in FY2023 with a final payment of approximately \$745,000.

The forecast Capital Outlays fluctuate based on the capital improvement plan and anticipated projects that are rate funded.

Table III-5 presents forecast capital outlays and debt service for the debt currently outstanding.

Table III-5

TOWN OF FLORENCE				
CAPITAL OUTLAYS AND EXISTING DEBT SERVICE				
SCENARIO: 2018 02 28 Scenario 1 -- Status Quo				
	Total Capital Outlays	Existing Debt Service		Total Existing Debt Service
		WIFA Loan		
WATER Capital Outlays/Existing Debt Service				
2018	\$ 1,000,000	\$ -	\$ -	\$ -
2019	1,000,000	-	-	-
2020	1,000,000	-	-	-
2021	1,000,000	-	-	-
2022	1,000,000	-	-	-
2023	1,000,000	-	-	-
2024	660,000	-	-	-
2025	1,000,000	-	-	-
2026	1,000,000	-	-	-
2027	276,000	-	-	-
Existing Debt Service				
	Total Capital Outlays			Total Existing Debt Service
WASTEWATER Capital Outlays/Existing Debt Service				
2018	\$ 1,000,000	\$ 604,491	\$ -	\$ 604,491
2019	1,000,000	603,254	-	603,254
2020	1,000,000	604,010	-	604,010
2021	1,000,000	603,757	-	603,757
2022	1,000,000	603,496	-	603,496
2023	265,000	842,435	-	842,435
2024	415,000	84,653	-	84,653
2025	315,000	84,626	-	84,626
2026	415,000	84,598	-	84,598
2027	335,000	84,569	-	84,569

Capital Improvement Plan

Like most towns, Florence maintains an extensive and detailed capital improvement program to repair, maintain and expand its water and wastewater system. Minor capital improvements are contained in the Town’s budget. Major capital improvements are funded through a series of bonds issued by the Town.

Town staff and the project team worked together to develop the Town’s forecast capital improvements needs over the next decade. The forecast CIP is summarized in **Table III-6** and **Chart III-7** and presented in detail in **Table III-8** and **Table III-9**. As the chart reveals, the Town is forecast to spend **\$56,948,078** in total capital improvements in the next decade. The majority of these improvements are forecast to be in the wastewater division.

Table III-6

TOWN OF FLORENCE			
CAPITAL IMPROVEMENT PLAN			
SCENARIO: 2018 02 28 Scenario 1 -- Status Quo			
	Total	Years 1-5	Years 6-10
WATER CIP	\$ 18,389,578	\$ 12,121,578	\$ 6,268,000
WASTEWATER CIP	<u>38,558,500</u>	<u>35,463,500</u>	<u>3,095,000</u>
Total CIP	\$ 56,948,078	\$ 47,585,078	\$ 9,363,000
Percent	100.0%	83.6%	16.4%

Chart III-7

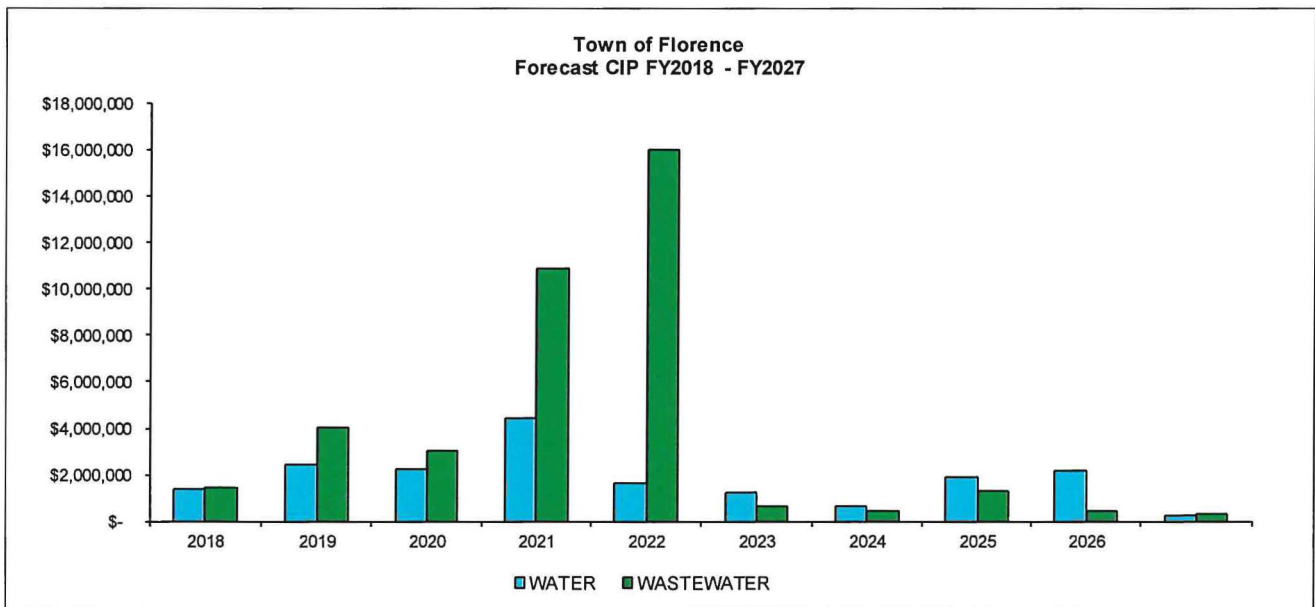


Table III-8

TOWN OF FLORENCE		WATER CAPITAL IMPROVEMENT PLAN										
10 Year Forecast 2018-2027		Total Period	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Input Area – CIP FUNDING ASSUMPTIONS												
Scenario:		2018 02 28 Scenario 1 – Status Quo										
1A WATER												
WU-23 Water Well #1/ Chlorine Building	\$ 350,000	\$ 350,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
WU-25 UNS /Water Line Relocated	120,000	-	-	-	-	-	-	120,000	-	-	-	-
WU-26 Water Storage Tank N Florence	20,000	20,000	-	-	-	-	-	-	-	-	-	-
WU-38 Water Line Replacements	7,114,578	391,578	647,000	921,000	617,000	1,530,000	1,050,000	620,000	356,000	871,000	111,000	
WU-70 Prison Complex Water Line (NE Complex)	125,000	-	-	-	-	-	-	-	-	-	125,000	-
WU-74 Water Trans Line Exd - Caliente Entrance to	1,465,000	-	-	-	-	-	-	-	1,465,000	-	-	-
WU-80 Well #3 Noise Control	30,000	30,000	-	-	-	-	-	-	-	-	-	-
WU-83 Downtown 12" Loop (CDBG)	1,575,000	500,000	525,000	550,000	-	-	-	-	-	-	-	-
WU-85 Water upgrade south of 287	125,000	-	-	-	125,000	-	-	-	-	-	-	-
WU-86 Centennial Park Road 8" Loop	225,000	-	80,000	145,000	-	-	-	-	-	-	-	-
WU-89 Well #4 booster pump	50,000	-	-	-	-	-	50,000	-	-	-	-	-
WU-90 Well Refitting	400,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	
WU-91 Well #4 Well Pump Inspection and Rebuild	110,000	-	110,000	-	-	-	-	-	-	-	-	-
WU-XX Hydrant Replacement	300,000	-	200,000	100,000	-	-	-	-	-	-	-	-
WU-XX 8" line extension 410 ft Willow to High Schc	85,000	20,000	65,000	-	-	-	-	-	-	-	-	-
WU-XX 12" line Adamsville Rd Quartz to 79B	115,000	25,000	90,000	-	-	-	-	-	-	-	-	-
WU-XX Water Barn	300,000	-	300,000	-	-	-	-	-	-	-	-	-
WU-XX Northend Framework	450,000	-	450,000	-	-	-	-	-	-	-	-	-
WU-XX River Road Water line	1,080,000	-	540,000	540,000	-	-	-	-	-	-	-	-
WU-XX Future Wells	2,000,000	-	-	1,000,000	-	-	-	-	-	1,000,000	-	-
WU-XX Buy Credits	-	-	-	-	-	-	-	-	-	-	-	-
WU-XX Storage Tank, Anthem area	1,250,000	-	-	1,000,000	-	-	-	-	-	250,000	-	-
WU-XX Adamsville Rd water line, 1300-ft	100,000	-	-	-	50,000	-	-	-	50,000	-	-	-
WU-XX Fire Boosters	1,000,000	-	-	1,000,000	-	-	-	-	-	-	-	-
WU-XX Water line infrastructure to serve Anthem	-	-	-	-	-	-	-	-	-	-	-	-
Total Water Projects	\$ 18,389,578	\$ 1,376,578	\$ 2,427,000	\$ 2,231,000	\$ 4,467,000	\$ 1,620,000	\$ 1,260,000	\$ 660,000	\$ 1,911,000	\$ 2,161,000	\$ 276,000	
Years 1 - 5	\$ 12,121,578											
Years 6 - 10	\$ 6,268,000											

Table III-9

TOWN OF FLORENCE		WASTEWATER CAPITAL IMPROVEMENT PLAN										
10 Year Forecast 2018-2027		Total Period	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Input Area – CIP FUNDING ASSUMPTIONS												
Scenario:		2018 02 28 Scenario 1 – Status Quo										
WASTEWATER												
SU-06 Sewer Main Extensions & Replacements	\$ 1,000,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000
SU-05 Recharge Injection Wells/Polishing Lagoons	500,000	-	500,000	-	-	-	-	-	-	-	-	-
SU-XX Florence N. - WWTP Expansion	5,150,000	-	-	150,000	5,000,000	-	-	-	-	-	-	-
SU-11 Florence S. - WWTP Expansion	17,150,000	-	-	-	2,000,000	15,150,000	-	-	-	-	-	-
SU-13 WWTP Expansion (N. Florence)	350,000	275,000	75,000	-	-	-	-	-	-	-	-	-
SU-15 Lift Station at Hunt Highway & SR 79	370,000	-	-	-	40,000	330,000	-	-	-	-	-	-
SU-20 Recharge Facility Expansion	550,000	250,000	150,000	-	-	150,000	-	-	-	-	-	-
SU-83 SCADA Tie Ins/Sewer Controls	225,000	-	175,000	30,000	20,000	-	-	-	-	-	-	-
SU-84 Miscellaneous (Sewer Projects)	1,150,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	150,000	150,000	150,000	
SU-85 Recharge Permitting & Design	75,000	75,000	-	-	-	-	-	-	-	-	-	-
SU-XX WWTP Compliance/Permitting Equipment	53,500	38,500	15,000	-	-	-	-	-	-	-	-	-
SU-XX South WWTP Improvement Modifications	800,000	200,000	200,000	100,000	-	100,000	-	100,000	-	100,000	-	-
SU-XX Sewer line Maintenance Vehicle (Vac)	185,000	-	35,000	35,000	65,000	-	-	50,000	-	-	-	-
SU-88 South WWTP Expansion Headworks	3,650,000	150,000	2,000,000	1,500,000	-	-	-	-	-	-	-	-
SU-89 System Wide Capacity/Condition Analysis	300,000	150,000	150,000	-	-	-	-	-	-	-	-	-
SU-XX Main Street Sewer Main Replacement	1,000,000	-	500,000	500,000	-	-	-	-	-	-	-	-
SU-90 Annual Sewer Line Maintenance Program	670,000	65,000	65,000	65,000	65,000	65,000	65,000	65,000	65,000	65,000	65,000	
SU-91 SWWTP sound/odor attenuation	75,000	75,000	-	-	-	-	-	-	-	-	-	-
SU-92 North End Framework	-	-	-	-	-	-	-	-	-	-	-	-
SU-93 SWWTP disinfection system upgrade	3,030,000	-	-	30,000	3,000,000	-	-	-	-	-	-	-
SU-94 North Florence Waste Water Treatment Plant (Merrill F	75,000	-	75,000	-	-	-	-	-	-	-	-	-
SU-XX West main extensions (Adamsville/Dobson property)	1,000,000	-	-	-	-	-	-	-	1,000,000	-	-	-
SU-XX Jetter Truck	350,000	-	-	-	-	-	350,000	-	-	-	-	-
SU-XX S. WW Treatment odor control/dust abatement	300,000	-	-	300,000	-	-	-	-	-	-	-	-
SU-XX River Road Sewer Line	550,000	-	-	50,000	500,000	-	-	-	-	-	-	-
Total Wastewater Projects	\$ 38,558,500	\$ 1,478,500	\$ 4,085,500	\$ 3,035,000	\$ 10,890,000	\$ 15,995,000	\$ 615,000	\$ 415,000	\$ 1,315,000	\$ 415,000	\$ 335,000	
Total Water and WW CIP	\$ 58,948,078	\$ 2,855,078	\$ 6,492,000	\$ 5,266,000	\$ 15,357,000	\$ 17,615,000	\$ 1,875,000	\$ 1,075,000	\$ 3,226,000	\$ 2,576,000	\$ 611,000	
Percent Water	32.3%	48.2%	37.4%	42.4%	29.1%	9.2%	67.2%	61.4%	59.2%	83.9%	45.2%	
Percent WW	67.7%	51.8%	62.6%	57.6%	70.9%	90.8%	32.8%	38.6%	40.8%	16.1%	54.8%	

It should be noted that the Town’s current plan includes minimal forecast rate funded capital improvements for FY 2023 through FY 2027 at this time. Projects highlighted in pink are Developer Impact Fee (DIF) Funded, which are shown in Table III-10.

Table III-10

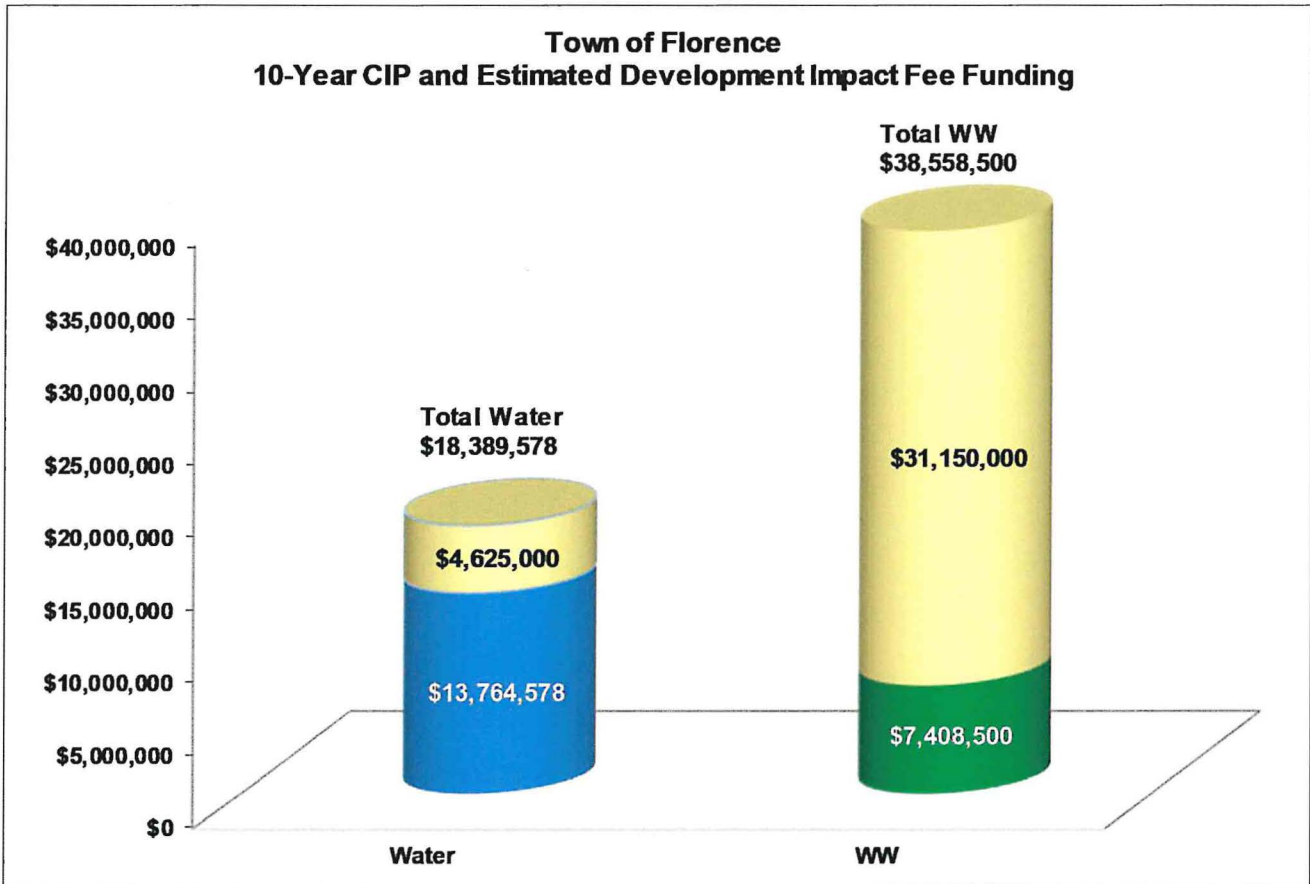


Table III-11 presents the project team’s assumptions for how the water and wastewater capital improvement plan will be financed over the next decade. The table reveals that the CIP is forecast to be funded through a combination of private sector CFD financing, private sector development agreement financing, impact fees, grants, and private sector donations. Certain projects within the CIP are expressly designated for these alternative funding instruments. The difference between the amount required by the Town to fund the CIP and the amount provided by the financing tools described above must be financed through the issuance of long-term debt. It should be noted that the beginning capital funds available to fund capital projects is based on the Town’s FY2018 and ending fund available are an estimated reflection of FY2027.

As Table III-11 reveals, the project team is forecasting that the Town will issue **\$5,000,000** in water and wastewater related long term debt in the next decade.

Table III-11

TOWN OF FLORENCE	
CAPITAL IMPROVEMENT PROJECT FUNDING	
Beginning Capital Funds Available	\$ 8,710,498
<u>Non-Rate Sources</u>	
Developer Contribution	-
Grant - CDBG	1,390,000
DIF Funding - Water	4,625,000
DIF Funding - Wastewater	31,150,000
Unfunded Total	-
Sub-Total	37,165,000
<u>Rate Funded</u>	
Water	8,936,000
Wastewater	6,745,000
Proceeds from the Issuance of Debt	\$ 5,000,000
Total Available Funds	66,556,498
Less Capital Improvement Plan	56,948,078
Ending Capital Funds Available	\$ 9,608,420

Debt Service – Forecast

A key assumption for the Town's long-term water and wastewater rate plan is that the Town issues additional debt to fund those projects not funded through developer impact fees or the other sources described in the previous section. The debt forecast to be issued by the Town is shown in Table III-10 and summarized in **Table III-12**. Both tables reveal that the Town is forecast to issue approximately \$5,000,000 in long-term debt to finance its capital improvement plan.

A wastewater division debt issuance is recommended for 2021, and is assumed to have a 20-year term and a 4.0% interest rate.

Table III-13 presents total forecast annual debt service for the water and wastewater departments.

Table III-12

TOWN OF FLORENCE					
FORECAST BOND ISSUES					
SCENARIO: 2018 02 28 Scenario 1 -- Status Quo					
	Total	WATER		WASTEWATER	
2018	\$ -	\$ -		\$ -	
2019	-	-		-	
2020	-	-		-	
2021	5,000,000	-		5,000,000	
2022	-	-		-	
2023	-	-		-	
2024	-	-		-	
2025	-	-		-	
2026	-	-		-	
2027	-	-		-	
Total Bonds	\$ 5,000,000	\$ -		\$ 5,000,000	

Table III-13

TOWN OF FLORENCE					
TOTAL FORECAST DEBT SERVICE					
SCENARIO: 2018 02 28 Scenario 1 -- Status Quo					
	TOTAL	WATER		WASTEWATER	
2018	\$ -	\$ -		\$ -	
2019	-	-		-	
2020	-	-		-	
2021	367,909	-		367,909	
2022	367,909	-		367,909	
2023	367,909	-		367,909	
2024	367,909	-		367,909	
2025	367,909	-		367,909	
2026	367,909	-		367,909	
2027	367,909	-		367,909	

SOURCE: Total Debt Service Input

Non-Rate Revenues

Although sales revenues constitute the majority of the revenue received by the Town for water and wastewater service, a certain amount of revenue is accrued from non-rate sources. These revenues include other general revenues, surcharges, development charges, and service revenues. These non-rate revenues are subtracted from the overall budget to determine the revenue requirement to be raised from rates. Non-rate revenues are presented in **Table III-14**.

Table III-14

TOWN OF FLORENCE						
FORECAST NON-RATE REVENUES						
SCENARIO: 2018 02 28 Scenario 1 -- Status Quo						
		TOTAL		WATER		WASTEWATER
2018	\$	376,627	\$	264,664	\$	111,963
2019		376,627		264,664		111,963
2020		376,627		264,664		111,963
2021		376,627		264,664		111,963
2022		376,627		264,664		111,963
2023		376,627		264,664		111,963
2024		376,627		264,664		111,963
2025		376,627		264,664		111,963
2026		376,627		264,664		111,963
2027		376,627		264,664		111,963

Net Revenue Requirement

Table III-15 presents the test year and ten-year forecast for the Town's net revenue requirement to be raised from rates. As the table reveals, debt service becomes an increasing portion of the total revenue requirement in future years. Detailed calculations are presented in the rate model contained in Appendix A of this report.

Table III-15

TOWN OF FLORENCE								
CURRENT AND FORECAST REVENUE REQUIREMENT								
SCENARIO:	2018 02 28 Scenario 1 -- Status Quo							
	Operating Expenses	Capital Outlays	Current Debt Service	Future Debt Service	Operating Transfers	Total Cost of Service	Less Non-Rate Revenues	Net Revenue Requirement
WATER Revenue Requirement								
2018	\$ 1,901,265	\$ 1,000,000	\$ -	\$ -	\$ 461,770	\$ 3,363,035	\$ 264,664	\$ 3,098,371
2019	1,972,425	1,000,000	-	-	475,623	3,448,048	264,664	3,183,384
2020	2,046,557	1,000,000	-	-	489,892	3,536,449	264,664	3,271,785
2021	2,124,724	1,000,000	-	-	504,589	3,629,312	264,664	3,364,648
2022	2,206,097	1,000,000	-	-	519,726	3,725,823	264,664	3,461,159
2023	2,290,968	1,000,000	-	-	535,318	3,826,286	264,664	3,561,622
2024	2,379,510	660,000	-	-	551,378	3,590,887	264,664	3,326,223
2025	2,471,900	1,000,000	-	-	567,919	4,039,819	264,664	3,775,155
2026	2,568,327	1,000,000	-	-	584,956	4,153,284	264,664	3,888,620
2027	2,668,970	276,000	-	-	602,505	3,547,475	264,664	3,282,811
WASTEWATER Revenue Requirement								
2018	\$ 2,041,754	\$ 1,000,000	\$ 604,491	\$ -	\$ 493,566	\$ 4,139,811	\$ 111,963	\$ 4,027,848
2019	2,124,998	1,000,000	603,254	-	508,373	4,236,626	111,963	4,124,663
2020	2,212,367	1,000,000	604,010	-	523,624	4,340,001	111,963	4,228,038
2021	2,305,214	1,000,000	603,757	367,909	539,333	4,816,212	111,963	4,704,249
2022	2,402,431	1,000,000	603,496	367,909	555,513	4,929,349	111,963	4,817,386
2023	2,504,248	265,000	842,435	367,909	572,178	4,551,770	111,963	4,439,807
2024	2,610,904	415,000	84,653	367,909	589,344	4,067,809	111,963	3,955,846
2025	2,722,653	315,000	84,626	367,909	607,024	4,097,212	111,963	3,985,249
2026	2,839,765	415,000	84,598	367,909	625,235	4,332,506	111,963	4,220,543
2027	2,962,523	335,000	84,569	367,909	643,992	4,393,992	111,963	4,282,029
TOTAL Revenue Requirement								
2018	\$ 3,943,019	\$ 2,000,000	\$ 604,491	\$ -	\$ 955,336	\$ 7,502,846	\$ 376,627	\$ 7,126,219
2019	4,097,424	2,000,000	603,254	-	983,996	7,684,674	376,627	7,308,047
2020	4,258,924	2,000,000	604,010	-	1,013,516	7,876,450	376,627	7,499,823
2021	4,429,938	2,000,000	603,757	367,909	1,043,921	8,445,525	376,627	8,068,898
2022	4,608,528	2,000,000	603,496	367,909	1,075,239	8,655,172	376,627	8,278,545
2023	4,795,216	1,265,000	842,435	367,909	1,107,496	8,378,056	376,627	8,001,429
2024	4,990,413	1,075,000	84,653	367,909	1,140,721	7,658,696	376,627	7,282,069
2025	5,194,553	1,315,000	84,626	367,909	1,174,943	8,137,030	376,627	7,760,403
2026	5,408,092	1,415,000	84,598	367,909	1,210,191	8,485,790	376,627	8,109,163
2027	5,631,493	611,000	84,569	367,909	1,246,497	7,941,468	376,627	7,564,841

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 Town’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 Town staff. The results of the allocation process for the test year are presented in **Table III-16**. The rate model presented in Appendix A includes a detailed listing of the allocations by line item.

Table III-16

TOWN OF FLORENCE			
TEST YEAR WATER COST FUNCTIONALIZATION			
SCENARIO: 2018 02 28 Scenario 1 -- Status Quo			
2018			
Function	Revenue Requirement	Percent	
Treatment	\$ 1,513,160	48.8%	
Distribution	540,667	17.5%	
Administration	984,853	31.8%	
Customer	<u>59,690</u>	<u>1.9%</u>	
Total	\$ 3,098,371	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.

Limitations in the availability of information resulted in the decision not to attempt to allocate costs further to the maximum hour component.

According to AWWA Manual M-1 (p. 12), 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. Based on general industry standards, the Town's peak to average capacity factor is assumed to be **2.00**. The peak to average factor is calculated by dividing the volume on the peak day of the year by the average daily volume. This means that facilities designed to meet maximum-day requirements, such as the treatment and distribution functions, are allocated 50.00% to base, and 50.00% 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 rate model in Appendix A provides the detailed allocations of costs to service characteristics. The system-wide costs by service characteristic are shown in **Table III-17**. As with cost functionalization, these percentages are not expected to change significantly in the forecast period.

Table III-17

TOWN OF FLORENCE			
TEST YEAR WATER COST CLASSIFICATION			
SCENARIO: 2018 02 28 Scenario 1 -- Status Quo			
2018			
Revenue			
Function	Requirement	Percent	
Base	\$ 1,505,433	54.09%	
Maximum Day	1,505,433	54.09%	
Customer	87,504	3.14%	
Total	\$ 2,783,405	111.3%	

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 water utility costs for Test Year 2018 by customer classes are presented in

Table III-18. The total water utility costs by customer class for the entire term of the study are summarized in **Table III-19.** Overall cost calculations are presented in detail in the rate model contained in Appendix A.

Table III-18

TOWN OF FLORENCE		
TEST YEAR WATER COST ALLOCATION		
SCENARIO: 2018 02 28 Scenario 1 -- Status Quo		
2018		
Function	Revenue Requirement	Percent
5/8" Inside	\$ 863,821	27.9%
5/8" Outside	18,199	0.6%
1" Inside	138,653	4.5%
1" Outside	7,679	0.2%
1 1/2" Inside	11,524	0.4%
1 1/2" Outside	9,183	0.3%
2" Inside	512,432	16.5%
2" Outside	15,150	0.5%
3" Compound	211,097	6.8%
3" Turbine	64,187	2.1%
3" Turbine-Out	21,506	0.7%
4" Compound	9,691	0.3%
4" Turbine	169,223	5.5%
6" Turbine	51,902	1.7%
8" Turbine	257,604	8.3%
CCA	736,520	23.8%
Total	\$ 3,098,371	100.0%

Table III-19

TOWN OF FLORENCE										
FORECAST WATER COST ALLOCATION										
SCENARIO: 2018 02 28 Scenario 1 -- Status Quo										
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
5/8" Inside	\$ 863,821	\$ 885,597	\$ 908,262	\$ 933,631	\$ 960,212	\$ 987,908	\$ 922,477	\$ 1,046,853	\$ 1,078,212	\$ 910,225
5/8" Outside	18,199	18,632	19,083	19,535	20,010	20,503	19,069	21,554	22,112	18,594
1" Inside	138,653	142,768	147,051	151,413	155,981	160,740	150,334	170,872	176,263	149,031
1" Outside	7,679	7,859	8,046	8,236	8,435	8,642	8,036	9,083	9,317	7,834
1 1/2" Inside	11,524	11,798	12,083	12,372	12,675	12,990	12,084	13,661	14,018	11,790
1 1/2" Outside	9,183	9,396	9,617	9,843	10,079	10,325	9,600	10,849	11,127	9,355
2" Inside	512,432	533,344	555,030	577,177	600,265	624,250	588,977	675,109	702,087	598,279
2" Outside	15,150	15,754	16,381	17,022	17,690	18,383	17,333	19,855	20,636	17,352
3" Compound	211,097	216,033	221,171	226,392	231,866	237,567	220,924	249,694	256,141	215,380
3" Turbine	64,187	65,695	67,265	68,860	70,531	72,273	67,216	75,976	77,944	65,546
3" Turbine-Out	21,506	22,003	22,520	23,047	23,599	24,173	22,475	25,396	26,046	21,897
4" Compound	9,691	9,918	10,155	10,395	10,646	10,908	10,145	11,466	11,762	9,891
4" Turbine	169,223	173,335	177,614	181,942	186,484	191,213	177,948	201,266	206,608	173,842
6" Turbine	51,902	53,126	54,400	55,693	57,048	58,461	54,374	61,464	63,060	53,033
8" Turbine	257,604	263,813	270,274	277,516	284,397	291,563	271,294	306,796	314,891	264,917
CCA	736,520	754,315	772,833	791,575	811,242	831,722	773,938	875,260	898,394	755,846

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

Treatment -- BOD – the costs associated with treating wastewater BOD discharges

Treatment -- TSS – the costs associated with treating wastewater suspended solids (TSS) 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 in **Table III-20**. The rate model in Appendix A presents a detailed listing of the cost allocations by line item. As with the water utility, these percentages are not forecast to change significantly during the next ten years.

Table III-20

TOWN OF FLORENCE			
TEST YEAR WASTEWATER COST FUNCTIONALIZATION			
SCENARIO:		2018 02 28 Scenario 1 -- Status Quo	
		2018	
		Revenue	
Function		Requirement	Percent
Treatment -- Volume	\$	776,457	18.8%
Treatment -- BOD		595,162	14.4%
Treatment -- TSS		544,757	13.2%
Collection		1,255,830	30.3%
Administration		905,192	21.9%
Customer		62,413	1.5%
Total	\$	4,139,811	100.0%

Wastewater Utility Cost Allocation

Allocation of wastewater utility costs by service characteristic to customer classes is performed in the same manner as described for the water utility. The total wastewater utility costs by customer class are summarized in **Table III-21**. The rate model in Appendix A presents a detailed listing of the cost calculations by line item.

Table III-21

TOWN OF FLORENCE					
FORECAST WASTEWATER COST ALLOCATION					
SCENARIO: 2018 02 28 Scenario 1 -- Status Quo					
Year	Residential	Commercial	Non-Residential	Institutional	Total
2018	\$ 731,652	\$ 513,289	\$ 4,611	\$ 2,778,297	\$ 4,027,848
2019	750,715	531,325	4,719	2,837,904	4,124,663
2020	770,990	550,442	4,833	2,901,773	4,228,038
2021	858,646	619,935	5,335	3,220,333	4,704,249
2022	885,526	640,702	5,451	3,285,707	4,817,386
2023	821,400	587,696	5,007	3,025,704	4,439,807
2024	758,021	533,427	4,574	2,659,824	3,955,846
2025	770,117	541,028	4,604	2,669,500	3,985,249
2026	818,848	579,016	4,853	2,817,825	4,220,543
2027	837,223	591,562	4,918	2,848,326	4,282,029

SECTION IV

Water and Wastewater Rate Design



Rate design involves determining charges for each class of customers that will generate a desired level of revenue. Over the course of the engagement, the project team has participated in numerous conversations and meetings with Town staff at which various alternative rate plans were discussed. As a result of these conversations and work sessions, the project team has developed the alternative long-term rate plans presented in this section.

The plans are designed to allow the Town to recover sufficient and equivalent revenues to meet all operating and capital obligations, including the debt service required to fund the Town's forecast capital

improvements. All plans are forecast to result in approximately the same amount of revenue.

Rate Design Scenarios

The Town last increased water and wastewater rates in 2014. This section of the reports presents three separate and distinct water and wastewater rate design scenarios for the Town to consider. Each of the rate design alternatives contained in this section are forecast to recover sufficient revenues to fund current and future operating expenses.

The three rate design Scenarios are:

- **Scenario 1** – “Status Quo”
- **Scenario 2** – “Add Residential Rate Tier”
- **Scenario 3** – “Securing Future Water Charge”

Each Scenario's assumptions, proposed rates and rate impacts are detailed in the next several pages.

Rate Design – Scenario 1 – “Status Quo”

Under Scenario 1, the recommended rate design maintains the same rate structures that the Town currently maintains in place. The plan assumes that the Town chooses to make no significant changes in the current rate structure.

Table IV-1 summarizes the water rate recommendations for the six-year period 2018-2023. The table reveals that water rate increases of 8.0% are recommended for May 2018 and April 2019, 6% in April 2020 and 5% in April 2021 and 2022.

Table IV-2 presents the Town's proposed wastewater rate plan. Wastewater rate increases of 3.0% are recommended in May 2018 and April 2019, 5% in April 2020, 8% in April 2021 and 6% in April 2022.

Table IV-3 calculates the average impact on monthly water and wastewater bills of the proposed rate design at various usage levels. The average monthly per meter water usage in the Town is approximately 4,000 gallons, and few customers outside the Town's institutions use more than 50,000 gallons per month.



Table IV-1

TOWN OF FLORENCE		WATER Utility -- Recommended Rate Plan						
Scen:	2018 02 28 Scenario 1 -- Status Quo							
	Current	Effective May-18	Effective Apr-19	Effective Apr-20	Effective Apr-21	Effective Apr-22	Effective Apr-23	
Water Inside Town Limits								
Base Charge								
5/8" Inside	\$ 22.34	\$ 24.13	\$ 26.06	\$ 27.62	\$ 29.00	\$ 30.45	\$ 31.97	
1" Inside	37.24	40.22	43.44	46.04	48.35	50.76	53.30	
1 1/2" Inside	93.10	120.64	130.29	138.10	145.01	152.26	159.87	
2" Inside	148.95	160.87	173.74	184.16	193.37	203.04	213.19	
3" Compound	238.34	257.41	278.00	294.68	309.41	324.88	341.13	
3" Turbine	260.68	281.53	304.06	322.30	338.42	355.34	373.10	
4" Compound	372.39	402.18	434.36	460.42	483.44	507.61	532.99	
4" Turbine	469.21	506.75	547.29	580.12	609.13	639.59	671.57	
6" Compound	744.78	804.36	868.71	920.83	966.88	1,015.22	1,065.98	
6" Turbine	1,042.69	1,126.11	1,216.19	1,289.17	1,353.62	1,421.30	1,492.37	
8" Turbine	1,787.47	1,930.47	2,084.91	2,210.00	2,320.50	2,436.52	2,558.35	
10" Turbine	2,830.17	3,056.58	3,301.11	3,499.18	3,674.14	3,857.84	4,050.73	
12" Turbine	3,723.91	4,021.82	4,343.57	4,604.18	4,834.39	5,076.11	5,329.92	
Usage Charge -- Gallons								
- 10,000	1.59	1.72	1.85	1.97	2.06	2.17	2.28	
10,001 18,700	2.21	2.39	2.58	2.73	2.87	3.01	3.16	
18,701 Above	3.93	4.24	4.58	4.86	5.10	5.36	5.62	
Usage Charge -- Cubic Feet								
- 1,337	1.14	1.23	1.33	1.41	1.48	1.55	1.63	
1,338 2,500	1.57	1.70	1.83	1.94	2.04	2.14	2.25	
2,501 Above	2.81	3.03	3.28	3.47	3.65	3.83	4.02	
Water Outside Town Limits								
Base Charge								
5/8" Outside	\$ 29.04	\$ 31.36	\$ 33.87	\$ 35.90	\$ 37.70	\$ 39.58	\$ 41.56	
1" Outside	48.40	52.27	56.45	59.84	62.83	65.97	69.27	
1 1/2" Outside	121.02	156.82	169.36	179.52	188.50	197.92	207.82	
2" Outside	193.64	209.13	225.86	239.41	251.38	263.95	277.15	
3" Compound	309.83	334.62	361.39	383.07	402.22	422.33	443.45	
3" Turbine	332.17	358.74	387.44	410.69	431.22	452.79	475.42	
4" Compound	484.11	522.84	564.67	598.55	628.47	659.90	692.89	
4" Turbine	580.93	627.40	677.60	718.25	754.17	791.87	831.47	
6" Compound	968.22	1,045.68	1,129.33	1,197.09	1,256.95	1,319.79	1,385.78	
6" Turbine	1,266.12	1,367.41	1,476.80	1,565.41	1,643.68	1,725.87	1,812.16	
8" Turbine	2,323.71	2,509.61	2,710.38	2,873.00	3,016.65	3,167.48	3,325.85	
10" Turbine	3,679.22	3,973.56	4,291.44	4,548.93	4,776.38	5,015.19	5,265.95	
12" Turbine	4,572.60	4,938.41	5,333.48	5,653.49	5,936.16	6,232.97	6,544.62	
Usage Charge -- Gallons								
- 10,000	2.04	2.20	2.38	2.52	2.65	2.78	2.92	
10,001 18,700	2.83	3.06	3.30	3.50	3.67	3.86	4.05	
18,701 Above	5.01	5.41	5.84	6.19	6.50	6.83	7.17	
Usage Charge -- Cubic Feet								
- 1,337	1.45	1.57	1.69	1.79	1.88	1.98	2.08	
1,338 2,500	2.02	2.18	2.36	2.50	2.62	2.75	2.89	
2,501 Above	3.57	3.86	4.16	4.41	4.63	4.87	5.11	

Table IV-2

TOWN OF FLORENCE									
Scen:		WASTEWATER Utility -- Recommended Rate Plan							
2018 02 28 Scenario 1 -- Status Quo		Prior	Effective May-18	Effective Apr-19	Effective Apr-20	Effective Apr-21	Effective Apr-22	Effective Apr-23	
Residential									
Base Charge	\$	18.55	\$ 19.11	\$ 19.68	\$ 20.66	\$ 22.32	\$ 23.66	\$ 24.37	
Usage Charge		4.35	4.48	4.61	4.85	5.23	5.55	5.71	
Commercial									
Base Charge		18.55	19.11	19.68	20.66	22.32	23.66	24.37	
Usage Charge		4.37	4.50	4.64	4.87	5.26	5.57	5.74	
Non-Residential									
Base Charge		18.55	19.11	19.68	20.66	22.32	23.66	24.37	
Usage Charge		4.37	4.50	4.64	4.87	5.26	5.57	5.74	
Institutional									
Base Charge		18.55	19.11	19.68	20.66	22.32	23.66	24.37	
Usage Charge		6.94	7.15	7.36	7.73	8.35	8.85	9.12	

Table IV-3

TOWN OF FLORENCE									
Scen:		WATER AND WASTEWATER Utility -- Impact of Rate Plan on Monthly Charges							
2018 02 28 Scenario 1 -- Status Quo		Current	Effective May-18	Effective Apr-19	Effective Apr-20	Effective Apr-21	Effective Apr-22	Effective Apr-23	
Monthly Gallons									
Water and Wastewater									
5,000	\$	70.59	\$ 74.22	\$ 78.08	\$ 82.34	\$ 87.81	\$ 92.68	\$ 96.29	
			3.63	3.86	4.26	5.46	4.88	3.61	
10,000	\$	100.29	\$ 105.21	\$ 110.43	\$ 116.40	\$ 124.29	\$ 131.25	\$ 136.23	
			4.92	5.22	5.97	7.89	6.96	4.98	
20,000	\$	168.13	\$ 176.30	\$ 184.97	\$ 194.94	\$ 208.22	\$ 219.90	\$ 228.20	
			8.17	8.67	9.98	13.27	11.68	8.30	
30,000	\$	250.93	\$ 263.55	\$ 276.96	\$ 291.99	\$ 311.57	\$ 328.94	\$ 341.59	
			12.62	13.41	15.04	19.58	17.37	12.65	

Rate Design – Scenario 2 – “Add Residential Rate Tier”

Scenario 2 rate design adds an additional rate tier for water meter sizes 5/8”, 1”, and 1 ½” and adjusts water rate tiers for meter sizes 2” and above. **Table IV-4** shows the current and proposed tiers for customers with meter sizes 5/8”, 1”, and 1 ½”. Adding the lower 0 – 5,000 gallons allows the Town's lower usage customers to pay a lower rate for average consumption. Referred to as an inclining block rate with rates per 1,000 gallons increasing for each usage tier, this rate structure encourages water conservation. The challenge is that this rate structure may disproportionately impact certain ratepayers based on usage. **Table IV-5** compares current rates for customers with meter sizes 2” and above to proposed rate tier adjustments. This is a nominal change in tiers that makes it easier for customer to understand and calculate their monthly bills.

Table IV-4

TOWN OF FLORENCE	
CURRENT AND PROPOSED WATER RATE TIERS METER SIZES 5/8", 1" AND 1 1/2"	
Current	Proposed
0 - 10,000	0 - 5,000
10,001 - 18,700	5,001 - 10,000
18,701 - Above	10,001 - 20,000
	20,001 - Above

Table IV-5

TOWN OF FLORENCE	
CURRENT AND PROPOSED WATER RATE TIERS METER SIZES 2" AND ABOVE	
Current	Proposed
0 - 10,000	0 - 10,000
10,001 - 18,700	10,001 - 20,000
18,701 - Above	20,001 - Above

Table IV-6 summarizes the water rate recommendations for the six-year period 2018-2023. Water rate increases of 8.0% are recommended in May 2018 and April 2019, 6% in April 2020 and 5% in April 2021 and 2022.

Table IV-7 presents the Town's proposed wastewater rate plan. Wastewater rate increases of 3.0% are recommended in May 2018 and April 2019, 5% in April 2020, 8% in April 2021 and 6% in April 2022.

Table IV-8 calculates the average impact on monthly water and wastewater bills of the proposed rate design at various usage levels. The average monthly per meter water usage in the Town is approximately 4,000 gallons, and few customers outside the Town's institutions use more than 50,000 gallons in a month.

Table IV-6

TOWN OF FLORENCE		WATER Utility -- Recommended Rate Plan						
Scen:	2018 02 28 Scenario 2 -- Add Resid Tier							
	Current	Effective May-18	Effective Apr-19	Effective Apr-20	Effective Apr-21	Effective Apr-22	Effective Apr-23	
Water Inside Town Limits								
Base Charge								
5/8" Inside	\$ 22.34	\$ 24.13	\$ 26.06	\$ 27.62	\$ 29.00	\$ 30.45	\$ 31.97	
1" Inside	37.24	40.22	43.44	46.04	48.35	50.76	53.30	
1 1/2" Inside	93.10	120.64	130.29	138.10	145.01	152.26	159.87	
2" Inside	148.95	160.87	173.74	184.16	193.37	203.04	213.19	
3" Compound	238.34	257.41	278.00	294.68	309.41	324.88	341.13	
3" Turbine	260.68	281.53	304.06	322.30	338.42	355.34	373.10	
4" Compound	372.39	402.18	434.36	460.42	483.44	507.61	532.99	
4" Turbine	469.21	506.75	547.29	580.12	609.13	639.59	671.57	
6" Compound	744.78	804.36	868.71	920.83	966.88	1,015.22	1,065.98	
6" Turbine	1,042.69	1,126.11	1,216.19	1,289.17	1,353.62	1,421.30	1,492.37	
8" Turbine	1,787.47	1,930.47	2,084.91	2,210.00	2,320.50	2,436.52	2,558.35	
10" Turbine	2,830.17	3,056.58	3,301.11	3,499.18	3,674.14	3,857.84	4,050.73	
12" Turbine	3,723.91	4,021.82	4,343.57	4,604.18	4,834.39	5,076.11	5,329.92	
Usage Charge -- Gallons								
-	10,000	1.35	1.46	1.57	1.67	1.75	1.84	
10,001	18,700	2.03	2.19	2.37	2.51	2.64	2.77	
18,701	Above	3.04	3.28	3.55	3.76	3.95	4.14	
Usage Charge -- Cubic Feet								
-	1,337	1.14	1.23	1.33	1.41	1.48	1.55	
1,338	2,500	1.57	1.70	1.83	1.94	2.04	2.14	
2,501	Above	2.81	3.03	3.28	3.47	3.65	3.83	
Water Outside Town Limits								
Base Charge								
5/8" Outside	\$ 29.04	\$ 31.36	\$ 33.87	\$ 35.90	\$ 37.70	\$ 39.58	\$ 41.56	
1" Outside	48.40	52.27	56.45	59.84	62.83	65.97	69.27	
1 1/2" Outside	121.02	156.82	169.36	179.52	188.50	197.92	207.82	
2" Outside	193.64	209.13	225.86	239.41	251.38	263.95	277.15	
3" Compound	309.83	334.62	361.39	383.07	402.22	422.33	443.45	
3" Turbine	332.17	358.74	387.44	410.69	431.22	452.79	475.42	
4" Compound	484.11	522.84	564.67	598.55	628.47	659.90	692.89	
4" Turbine	580.93	627.40	677.60	718.25	754.17	791.87	831.47	
6" Compound	968.22	1,045.68	1,129.33	1,197.09	1,256.95	1,319.79	1,385.78	
6" Turbine	1,266.12	1,367.41	1,476.80	1,565.41	1,643.68	1,725.87	1,812.16	
8" Turbine	2,323.71	2,509.61	2,710.38	2,873.00	3,016.65	3,167.48	3,325.85	
10" Turbine	3,679.22	3,973.56	4,291.44	4,548.93	4,776.38	5,015.19	5,265.95	
12" Turbine	4,572.60	4,938.41	5,333.48	5,653.49	5,936.16	6,232.97	6,544.62	
Usage Charge -- Gallons								
-	10,000	1.75	1.90	2.05	2.17	2.28	2.39	
10,001	18,700	2.64	2.85	3.08	3.26	3.43	3.60	
18,701	Above	3.95	4.27	4.61	4.89	5.13	5.39	
Usage Charge -- Cubic Feet								
-	1,337	1.45	1.57	1.69	1.79	1.88	1.98	
1,338	2,500	2.02	2.18	2.36	2.50	2.62	2.75	
2,501	Above	3.57	3.86	4.16	4.41	4.63	4.87	

Table IV-7

TOWN OF FLORENCE		WASTEWATER Utility -- Recommended Rate Plan						
Scen:	2018 02 28 Scenario 2 -- Add Resid Tier							
	Prior	Effective May-18	Effective Apr-19	Effective Apr-20	Effective Apr-21	Effective Apr-22	Effective Apr-23	
Residential								
Base Charge	\$ 18.55	\$ 19.11	\$ 19.68	\$ 20.66	\$ 22.32	\$ 23.66	\$ 24.37	
Usage Charge	4.35	4.48	4.61	4.85	5.23	5.55	5.71	
Commercial								
Base Charge	18.55	19.11	19.68	20.66	22.32	23.66	24.37	
Usage Charge	4.37	4.50	4.64	4.87	5.26	5.57	5.74	
Non-Residential								
Base Charge	18.55	19.11	19.68	20.66	22.32	23.66	24.37	
Usage Charge	4.37	4.50	4.64	4.87	5.26	5.57	5.74	
Institutional								
Base Charge	18.55	19.11	19.68	20.66	22.32	23.66	24.37	
Usage Charge	6.94	7.15	7.36	7.73	8.35	8.85	9.12	

Table IV-8

TOWN OF FLORENCE		WATER AND WASTEWATER Utility -- Impact of Rate Plan on Monthly Charges					
Scen:	2018 02 28 Scenario 2 -- Add Resid Tier						
	Current	Effective May-18	Effective Apr-19	Effective Apr-20	Effective Apr-21	Effective Apr-22	Effective Apr-23
Monthly Gallons							
Water							
5,000	\$ 70.59	\$ 72.93	\$ 76.68	\$ 80.86	\$ 86.25	\$ 91.05	\$ 94.57
		2.34	3.76	4.17	5.39	4.80	3.52
10,000	\$ 100.29	\$ 106.29	\$ 111.60	\$ 117.64	\$ 125.59	\$ 132.62	\$ 137.67
		6.00	5.31	6.04	7.96	7.03	5.05
20,000	\$ 167.24	\$ 183.93	\$ 193.21	\$ 203.68	\$ 217.39	\$ 229.53	\$ 238.31
		16.69	9.28	10.47	13.71	12.14	8.78
30,000	\$ 250.93	\$ 277.98	\$ 292.54	\$ 308.51	\$ 328.92	\$ 347.16	\$ 360.72
		27.05	14.56	15.97	20.41	18.24	13.56

Rate Design – Scenario 3 – “Securing Future Water Charge”

This recommended rate design scenario maintains the same rate structures as Scenario 2. However, this scenario adds a monthly fixed Securing Future Water Charge that would apply to all customers.

The Town is within Pinal County's active management area. The goal of Pinal County's active management area is to balance the development of water resources for future needs while preserving future water supplies. When the Town requires additional water supply, in addition to the capital and development costs it incurs, it must pay fees to the Central Arizona Groundwater Replenishment District (CAGR) for extracting groundwater. The purpose of the Securing Future Water Charge is to fund these costs and enable ratepayers to understand the economic cost of water resources.

Table IV-9 summarizes the water rate recommendations for the six-year period 2018-2023. Water rate increases of 8.0% are recommended in May 2018 and April 2019, 6% in April 2020 and 5% in April 2021 and 2022.

Table IV-10 presents the Town's proposed wastewater rate plan. Wastewater rate increases of 3.0% are recommended in May 2018 and April 2019, 5% in April 2020, 8% in April 2021 and 6% in April 2022.

Table IV-11 calculates the average impact on monthly water and wastewater bills of the proposed rate design at various usage levels. The average monthly per meter water usage in the Town is approximately 4,000 gallons, and few customers outside the Town's institutions use more than 50,000 gallons in a month.



Table IV-9

TOWN OF FLORENCE							
WATER Utility -- Recommended Rate Plan							
Scen: 2018 02 28 Scenario 3 -- Securing Future Water							
	Current	Effective May-18	Effective Apr-19	Effective Apr-20	Effective Apr-21	Effective Apr-22	Effective Apr-23
Water Inside Town Limits							
Base Charge							
5/8" Inside	\$ 22.34	\$ 24.13	\$ 26.06	\$ 27.62	\$ 29.00	\$ 30.45	\$ 31.97
1" Inside	37.24	40.22	43.44	46.04	48.35	50.76	53.30
1 1/2" Inside	93.10	120.64	130.29	138.10	145.01	152.26	159.87
2" Inside	148.95	160.87	173.74	184.16	193.37	203.04	213.19
3" Compound	238.34	257.41	278.00	294.68	309.41	324.88	341.13
3" Turbine	260.68	281.53	304.06	322.30	338.42	355.34	373.10
4" Compound	372.39	402.18	434.36	460.42	483.44	507.61	532.99
4" Turbine	469.21	506.75	547.29	580.12	609.13	639.59	671.57
6" Compound	744.78	804.36	868.71	920.83	966.88	1,015.22	1,065.98
6" Turbine	1,042.69	1,126.11	1,216.19	1,289.17	1,353.62	1,421.30	1,492.37
8" Turbine	1,787.47	1,930.47	2,084.91	2,210.00	2,320.50	2,436.52	2,558.35
10" Turbine	2,830.17	3,056.58	3,301.11	3,499.18	3,674.14	3,857.84	4,050.73
12" Turbine	3,723.91	4,021.82	4,343.57	4,604.18	4,834.39	5,076.11	5,329.92
Securing Future Water	-	\$ 1.50	\$ 1.62	\$ 1.72	\$ 1.80	\$ 1.89	\$ 1.99
Usage Charge -- Gallons							
- 10,000	1.35	1.46	1.57	1.67	1.75	1.84	1.93
10,001 18,700	2.03	2.19	2.37	2.51	2.64	2.77	2.91
18,701 Above	3.04	3.28	3.55	3.76	3.95	4.14	4.35
Usage Charge -- Cubic Feet							
- 1,337	1.14	1.23	1.33	1.41	1.48	1.55	1.63
1,338 2,500	1.57	1.70	1.83	1.94	2.04	2.14	2.25
2,501 Above	2.81	3.03	3.28	3.47	3.65	3.83	4.02
Water Outside Town Limits							
Base Charge							
5/8" Outside	\$ 29.04	\$ 31.36	\$ 33.87	\$ 35.90	\$ 37.70	\$ 39.58	\$ 41.56
1" Outside	48.40	52.27	56.45	59.84	62.83	65.97	69.27
1 1/2" Outside	121.02	156.82	169.36	179.52	188.50	197.92	207.82
2" Outside	193.64	209.13	225.86	239.41	251.38	263.95	277.15
3" Compound	309.83	334.62	361.39	383.07	402.22	422.33	443.45
3" Turbine	332.17	358.74	387.44	410.69	431.22	452.79	475.42
4" Compound	484.11	522.84	564.67	598.55	628.47	659.90	692.89
4" Turbine	580.93	627.40	677.60	718.25	754.17	791.87	831.47
6" Compound	968.22	1,045.68	1,129.33	1,197.09	1,256.95	1,319.79	1,385.78
6" Turbine	1,266.12	1,367.41	1,476.80	1,565.41	1,643.68	1,725.87	1,812.16
8" Turbine	2,323.71	2,509.61	2,710.38	2,873.00	3,016.65	3,167.48	3,325.85
10" Turbine	3,679.22	3,973.56	4,291.44	4,548.93	4,776.38	5,015.19	5,265.95
12" Turbine	4,572.60	4,938.41	5,333.48	5,653.49	5,936.16	6,232.97	6,544.62
Securing Future Water	-	\$ 1.95	\$ 2.11	\$ 2.23	\$ 2.34	\$ 2.46	\$ 2.58
Usage Charge -- Gallons							
- 10,000	1.75	1.90	2.05	2.17	2.28	2.39	2.51
10,001 18,700	2.64	2.85	3.08	3.26	3.43	3.60	3.78
18,701 Above	3.95	4.27	4.61	4.89	5.13	5.39	5.66
Usage Charge -- Cubic Feet							
- 1,337	1.45	1.57	1.69	1.79	1.88	1.98	2.08
1,338 2,500	2.02	2.18	2.36	2.50	2.62	2.75	2.89
2,501 Above	3.57	3.86	4.16	4.41	4.63	4.87	5.11

Table IV-10

TOWN OF FLORENCE		WASTEWATER Utility -- Recommended Rate Plan						
Scen:	2018 02 28 Scenario 3 -- Securing Future Water							
	Prior	Effective May-18	Effective Apr-19	Effective Apr-20	Effective Apr-21	Effective Apr-22	Effective Apr-23	
Residential								
Base Charge	\$ 18.55	\$ 19.11	\$ 19.68	\$ 20.66	\$ 22.32	\$ 23.66	\$ 24.37	
Usage Charge	4.35	4.48	4.61	4.85	5.23	5.55	5.71	
Commercial								
Base Charge	18.55	19.11	19.68	20.66	22.32	23.66	24.37	
Usage Charge	4.37	4.50	4.64	4.87	5.26	5.57	5.74	
Non-Residential								
Base Charge	18.55	19.11	19.68	20.66	22.32	23.66	24.37	
Usage Charge	4.37	4.50	4.64	4.87	5.26	5.57	5.74	
Institutional								
Base Charge	18.55	19.11	19.68	20.66	22.32	23.66	24.37	
Usage Charge	6.94	7.15	7.36	7.73	8.35	8.85	9.12	

Table IV-11

TOWN OF FLORENCE		WATER AND WASTEWATER Utility -- Impact of Rate Plan on Monthly Charges					
Scen:	2018 02 28 Scenario 3 -- Securing Future Water						
	Current	Effective May-18	Effective Apr-19	Effective Apr-20	Effective Apr-21	Effective Apr-22	Effective Apr-23
Monthly Gallons							
Water							
5,000	\$ 70.59	\$ 74.43 3.84	\$ 78.30 3.88	\$ 82.58 4.27	\$ 88.05 5.48	\$ 92.94 4.89	\$ 96.56 3.62
10,000	100.29	107.79 7.50	113.22 5.43	119.35 6.13	127.39 8.04	134.51 7.12	139.65 5.14
20,000	167.24	185.43 18.19	194.83 9.40	205.40 10.57	219.19 13.80	231.42 12.23	240.30 8.88
30,000	250.93	279.48 28.55	294.16 14.68	310.23 16.07	330.72 20.49	349.05 18.33	362.70 13.65

Table IV-12 presents a comparison of residential monthly bill comparison between each of the three rate scenarios.

Table IV-12

		WATER AND WASTEWATER RESIDENTIAL RATE SCENARIO MONTHLY BILL COMPARISONS					
		Current	Effective May-18	Effective Apr-19	Effective Apr-20	Effective Apr-21	Effective Apr-22
Gallons							
4,000	Scen 1 - Status Quo	\$ 64.65	\$ 68.02	\$ 71.62	\$ 75.53	\$ 80.51	\$ 84.97
	Scen 2 - Add Residential Tier		66.99	70.50	74.37	79.26	83.66
	Scen 3 - Securing Future Water		68.49	72.12	76.06	81.07	85.55
5,000	Scen 1 - Status Quo	\$ 70.59	\$ 74.22	\$ 78.08	\$ 82.34	\$ 87.81	\$ 92.68
	Scen 2 - Add Residential Tier		72.93	76.68	80.86	86.25	91.05
	Scen 3 - Securing Future Water		74.43	78.30	82.58	88.05	92.94
10,000	Scen 1 - Status Quo	\$ 100.29	\$ 105.21	\$ 110.43	\$ 116.40	\$ 124.29	\$ 131.25
	Scen 2 - Add Residential Tier		106.29	111.60	117.64	125.59	132.62
	Scen 3 - Securing Future Water		107.79	113.22	119.35	127.39	134.51
20,000	Scen 1 - Status Quo	\$ 168.13	\$ 176.30	\$ 184.97	\$ 194.94	\$ 208.22	\$ 219.90
	Scen 2 - Add Residential Tier		183.93	193.21	203.68	217.39	229.53
	Scen 3 - Securing Future Water		185.43	194.83	205.40	219.19	231.42

Notes on Rate Recommendations

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

- Actual growth in accounts and consumed volumes is less than (or significantly greater than) forecast
- Capital improvement plan funding costs increase significantly due to the rising cost of materials or other factors
- An unforeseen event impacts the Town, such as an extended recession, natural catastrophe or terrorist attack
- Town budget levels or priorities change significantly from those forecast in this study

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

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



Town of Florence

Ten Year Rate Analysis and Pro Forma

Fiscal Years 2018 - 2027



Utility System

Water
Sewer
Combined

Dashboard

Financial Projections
Bill Comparison
Comparable Utilities

Customer Class

Residential

Years

10
5

Total Net Revenues Available for Contingency

Debt Service

Total Revenues

Debt Coverage

Combined Projections

Future Debt Term: 20

Water Future Bond Issues		
	Alternative	Proposed
2018	\$	-
2019	\$	-
2020	\$	-
2021	\$	-
2022	\$	-
2023	\$	-
2024	\$	-
2025	\$	-
2026	\$	-
2027	\$	-

Sewer Future Bond Issues		
	Alternative	Proposed
2018	\$	-
2019	\$	-
2020		5,000,000
2021	\$	-
2022	\$	-
2023	\$	-
2024	\$	-
2025	\$	-
2026	\$	-
2027	\$	-

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Water Rate Adjustments										
Base Charge	8.00%	8.00%	6.00%	5.00%	5.00%	5.00%	2.00%	2.00%	2.00%	2.00%
Volume Charge	8.00%	8.00%	6.00%	5.00%	5.00%	5.00%	2.00%	2.00%	2.00%	2.00%
Sewer Rate Adjustments										
Base & Volume Charge	3.00%	3.00%	5.00%	8.00%	6.00%	3.00%	2.00%	2.00%	2.00%	2.00%

**TOWN OF FLORENCE
WATER/WASTEWATER COST OF SERVICE MODEL**

Prior 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027

Forecast Summary

Scenario: 2018 02 28 Scenario 1 -- Status Quo

1 Water and Wastewater Rates

Water Rates -- Residential

Monthly Minimum Charge

5/8" - 3/4"	\$ 22.34	\$ 24.13	\$ 26.06	\$ 27.62	\$ 29.00	\$ 30.45	\$ 31.97	\$ 32.61	\$ 33.27	\$ 33.93	\$ 34.61
1"	37.24	40.22	43.44	46.04	48.35	50.76	53.30	54.37	55.45	56.56	57.69
1 1/2"	93.10	120.64	130.29	138.10	145.01	152.26	159.87	163.07	166.33	169.66	173.05
2"	148.95	160.87	173.74	184.16	193.37	203.04	213.19	217.45	221.80	226.24	230.76
3" Compound	238.34	257.41	278.00	294.68	309.41	324.88	341.13	347.95	354.91	362.01	369.25
3" Turbine	260.68	281.53	304.06	322.30	338.42	355.34	373.10	380.57	388.18	395.94	403.86
4" Compound	372.39	402.18	434.36	460.42	483.44	507.61	532.99	543.65	554.52	565.61	576.93

Volume Rate Per 1,000 Gal

- 10,000	\$ 1.59	\$ 1.72	\$ 1.85	\$ 1.97	\$ 2.06	\$ 2.17	\$ 2.28	\$ 2.32	\$ 2.37	\$ 2.42	\$ 2.46
10,001 18,700	2.21	2.39	2.58	2.73	2.87	3.01	3.16	3.23	3.29	3.36	3.42
18,700 Above	3.93	4.24	4.58	4.86	5.10	5.36	5.62	5.74	5.85	5.97	6.09

Wastewater Rates -- Residential

Monthly Charge	\$ 18.55	\$ 19.11	\$ 19.68	\$ 20.66	\$ 22.32	\$ 23.66	\$ 24.37	\$ 24.85	\$ 25.35	\$ 25.86	\$ 26.37
Volume Rate Per 1,000 Gallons	4.35	4.48	4.61	4.85	5.23	5.55	5.71	5.83	5.94	6.06	6.18

2 Residential Monthly Bill -- 3/4" Meter

Water

Gallons

5,000	Water	\$ 30.29	\$ 32.71	\$ 35.33	\$ 37.45	\$ 39.32	\$ 41.29	\$ 43.35	\$ 44.22	\$ 45.10	\$ 46.01	\$ 46.93
	WW	40.30	41.51	42.75	44.89	48.48	51.39	52.93	53.99	55.07	56.17	57.30
	Total	70.59	74.22	78.08	82.34	87.81	92.68	96.29	98.21	100.18	102.18	104.22
	Increase		3.63	3.86	4.26	5.46	4.88	3.61	1.93	1.96	2.00	2.04
10,000	Water	\$ 38.24	\$ 41.30	\$ 44.60	\$ 47.28	\$ 49.64	\$ 52.13	\$ 54.73	\$ 55.83	\$ 56.94	\$ 58.08	\$ 59.24
	WW	62.05	63.91	65.83	69.12	74.65	79.13	81.50	83.13	84.80	86.49	88.22
	Total	100.29	105.21	110.43	116.40	124.29	131.25	136.23	138.96	141.74	144.57	147.46
	Increase		4.92	5.22	5.97	7.89	6.96	4.98	2.72	2.78	2.83	2.89
20,000	Water	\$ 62.58	\$ 67.58	\$ 72.99	\$ 77.37	\$ 81.24	\$ 85.30	\$ 89.56	\$ 91.35	\$ 93.18	\$ 95.05	\$ 96.95
	WW	105.55	108.72	111.98	117.58	126.98	134.60	138.64	141.41	144.24	147.13	150.07
	Total	168.13	176.30	184.97	194.94	208.22	219.90	228.20	232.77	237.42	242.17	247.01
	Increase		8.17	8.67	9.98	13.27	11.68	8.30	4.66	4.66	4.75	4.84
30,000	Water	\$ 101.88	\$ 110.03	\$ 118.83	\$ 125.96	\$ 132.26	\$ 138.87	\$ 145.81	\$ 148.73	\$ 151.70	\$ 154.74	\$ 157.83
	WW	149.05	153.52	158.13	166.03	179.32	190.08	195.78	199.69	203.69	207.76	211.92
	Total	250.93	263.55	276.96	291.99	311.57	328.94	341.59	348.42	355.39	362.50	369.75
	Increase		12.62	13.41	16.04	19.58	17.37	12.65	6.83	6.97	7.11	7.25

TOWN OF FLORENCE
WATER/WASTEWATER COST OF SERVICE MODEL

Prior 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027

Forecast Summary**Scenario: 2018 02 28 Scenario 1 -- Status Quo****3 Annual Revenues and Expenses****Revenues and Expenses**

Water Rate Revenues	\$ 2,798,176	\$ 3,050,022	\$ 3,296,557	\$ 3,510,040	\$ 3,707,378	\$ 3,915,606	\$ 4,114,760	\$ 4,221,275	\$ 4,330,338	\$ 4,441,901
Wastewater Revenues	4,285,214	4,433,029	4,589,691	4,860,020	5,249,799	5,556,480	5,733,470	5,868,322	6,006,274	6,147,398
Non-Rate Revenues	376,627	376,627	376,627	376,627	376,627	376,627	376,627	376,627	376,627	376,627
Total Revenues	7,460,017	7,859,678	8,262,874	8,746,687	9,333,804	9,848,713	10,224,857	10,466,224	10,713,239	10,965,926
Operating Expenses	3,943,019	4,097,424	4,258,924	4,429,938	4,608,528	4,795,216	4,990,413	5,194,553	5,408,092	5,631,493
Net Revenues Available for Transfers/Capital Outlays/Debt Sen	3,516,998	3,762,254	4,003,950	4,316,749	4,725,276	5,053,497	5,234,444	5,271,671	5,305,147	5,334,432
Transfers	955,336	983,996	1,013,516	1,043,921	1,075,239	1,107,496	1,140,721	1,174,943	1,210,191	1,246,497
Capital Outlays	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	1,265,000	1,075,000	1,315,000	1,415,000	611,000
Total Operating/Transfers/Capital Outlays	6,898,355	7,081,420	7,272,440	7,473,859	7,683,767	7,167,713	7,206,135	7,684,496	8,033,283	7,488,990
Net Revenues Available for Debt Service	1,516,998	1,762,254	2,003,950	2,316,749	2,725,276	3,788,497	4,159,444	3,956,671	3,890,147	4,723,432
Water Current Debt Service	-	-	-	-	-	-	-	-	-	-
Water Future Debt Service	-	-	-	-	-	-	-	-	-	-
Wastewater Current Debt Service	604,491	603,254	604,010	603,757	603,496	842,435	84,653	84,626	84,598	84,569
Wastewater Future Debt Service	-	-	-	367,909	367,909	367,909	367,909	367,909	367,909	367,909
Total Debt Service	604,491	603,254	604,010	971,666	971,405	1,210,344	452,562	452,535	452,507	452,478
Total Cost of Service	7,502,846	7,684,674	7,876,450	8,445,525	8,655,172	8,378,056	7,658,696	8,137,030	8,485,790	7,941,468
Net Revenues Available for Contingency	(42,829)	175,004	386,424	301,162	678,632	1,470,657	2,566,161	2,329,194	2,227,449	3,024,458
Percent of COS	-0.6%	2.3%	4.9%	3.6%	7.8%	17.6%	33.5%	28.6%	26.2%	38.1%

TOWN OF FLORENCE
WATER/WASTEWATER COST OF SERVICE MODEL

Prior 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027

Forecast Summary**Scenario: 2018 02 28 Scenario 1 -- Status Quo****4 Revenue Adequacy Tests****Total Capital Fund Balance**

Beginning Fund Balance	\$	8,710,498	\$	6,353,330	\$	1,934,372	\$	(917,310)	\$	2,074,154	\$	587,668	\$	(709,451)	\$	(1,320,875)	\$	(3,303,258)	\$	(4,149,238)
Plus Non-Rate Funding Sources		428,000		2,000,000		2,338,000		13,185,000		15,958,000		400,000		278,000		1,050,000		1,528,000		-
Plus Impact Fees		69,910		73,042		76,318		163,464		170,514		177,880		185,576		193,617		202,020		210,800
Plus Proceeds from the Issuance of Deb \$	5,000,000	-		-		-		5,000,000		-		-		-		-		-		-
Total Available Funds		9,208,408		8,426,372		4,348,690		17,431,154		18,202,668		1,165,549		(245,875)		(77,258)		(1,573,238)		(3,938,439)
Less Capital Improvement Plan		2,855,078		6,492,000		5,266,000		15,357,000		17,615,000		1,875,000		1,075,000		3,226,000		2,576,000		611,000
Ending Capital Fund Balance		6,353,330		1,934,372		(917,310)		2,074,154		587,668		(709,451)		(1,320,875)		(3,303,258)		(4,149,238)		(4,549,439)

Total Operating Fund Balance

Beginning Fund Balance	\$	8,710,498	\$	8,667,669	\$	8,842,672	\$	9,229,097	\$	9,530,259	\$	10,208,891	\$	11,679,548	\$	14,245,708	\$	16,574,902	\$	18,802,351
Net Revenues Available for Contingency		(42,829)		175,004		386,424		301,162		678,632		1,470,657		2,566,161		2,329,194		2,227,449		3,024,458
Ending Operating Fund Balance		8,667,669		8,842,672		9,229,097		9,530,259		10,208,891		11,679,548		14,245,708		16,574,902		18,802,351		21,826,809
Days of Operating Expenditures		802		788		791		785		809		889		1,042		1,165		1,269		1,415

Debt Coverage

Debt Coverage -- Water and Wastewater Fund		5.82		6.24		6.63		4.44		4.86		4.18		11.57		11.65		11.72		11.79
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5 Total Accounts**Water Accounts**

Total Accounts		3,590		3,601		3,612		3,641		3,670		3,699		3,728		3,757		3,786		3,815
New Accounts		-		11		11		29		29		29		29		29		29		29
Avg. Annual Growth Rate				0.31%		0.31%		0.80%		0.80%		0.79%		0.78%		0.78%		0.77%		0.77%

Wastewater Accounts

Total Accounts		2,930		2,940		2,950		2,978		3,006		3,034		3,062		3,090		3,118		3,146
New Accounts		-		10		10		28		28		28		28		28		28		28
Avg. Annual Growth Rate				0.34%		0.34%		0.95%		0.94%		0.93%		0.92%		0.91%		0.91%		0.90%

**TOWN OF FLORENCE
WATER/WASTEWATER COST OF SERVICE MODEL**

Prior 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027

Forecast Summary

Scenario: 2018 02 28 Scenario 1 -- Status Quo

6 Annual Volume

Water Volume

5/8" Inside	136,494,475	136,637,636	136,780,648	137,290,871	137,799,205	138,305,671	138,810,289	139,313,079	139,814,061	140,313,255
5/8" Outside	2,270,068	2,270,068	2,270,068	2,270,068	2,270,068	2,270,068	2,270,068	2,270,068	2,270,068	2,270,068
1" Inside	14,506,396	14,590,736	14,674,590	14,757,969	14,840,879	14,923,328	15,005,324	15,086,875	15,167,987	15,248,668
1" Outside	509,061	509,061	509,061	509,061	509,061	509,061	509,061	509,061	509,061	509,061
2" Inside	58,773,680	59,753,241	60,717,003	61,665,707	62,600,035	63,520,624	64,428,062	65,322,896	66,205,638	67,076,765
3" Compound	13,411,170	13,411,170	13,411,170	13,411,170	13,411,170	13,411,170	13,411,170	13,411,170	13,411,170	13,411,170
3" Turbine	5,380,435	5,380,435	5,380,435	5,380,435	5,380,435	5,380,435	5,380,435	5,380,435	5,380,435	5,380,435
4" Compound	717,900	717,900	717,900	717,900	717,900	717,900	717,900	717,900	717,900	717,900
4" Turbine	38,377,070	38,377,070	38,377,070	38,377,070	38,377,070	38,377,070	38,377,070	38,377,070	38,377,070	38,377,070
6" Turbine	5,129,361	5,129,361	5,129,361	5,129,361	5,129,361	5,129,361	5,129,361	5,129,361	5,129,361	5,129,361
8" Turbine	49,337,200	49,337,200	49,337,200	49,462,100	49,462,100	49,462,100	49,462,100	49,462,100	49,462,100	49,462,100
CCA	148,737,135	148,737,135	148,737,135	148,737,135	148,737,135	148,737,135	148,737,135	148,737,135	148,737,135	148,737,135
Total System	476,807,952	478,031,695	479,238,743	480,922,119	482,463,625	483,988,835	485,498,374	486,992,828	488,472,741	489,923,742

Wastewater Billing Units

Residential	103,421,396	103,692,843	103,964,290	104,933,744	105,903,199	106,872,653	107,842,108	108,811,562	109,781,016	110,750,471
Commercial	79,374,856	80,419,262	81,463,668	82,508,074	83,552,480	84,596,886	85,641,292	86,685,698	87,730,104	88,774,510
Non-Residential	655,181	655,181	655,181	655,181	655,181	655,181	655,181	655,181	655,181	655,181
Institutional	74,639,008	74,639,008	74,639,008	74,639,008	74,639,008	74,639,008	74,639,008	74,639,008	74,639,008	74,639,008
ADOC	183,352,340	183,352,340	183,352,340	183,352,340	183,352,340	183,352,340	183,352,340	183,352,340	183,352,340	183,352,340
CCA	148,737,135	148,737,135	148,737,135	148,737,135	148,737,135	148,737,135	148,737,135	148,737,135	148,737,135	148,737,135
Total System	590,179,916	591,495,769	592,811,622	594,825,483	596,839,343	598,853,204	600,867,064	602,880,924	604,894,785	606,908,645

<div style="border: 1px solid black; padding: 5px; display: inline-block; background-color: white; color: black;"> TOWN OF FLORENCE WATER/WASTEWATER COST OF SERVICE MODEL </div>											
	Current	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027

WATER Summary
Scenario: 2018 02 28 Scenario 1 -- Status Quo

1 Water Rates -- Residential

Monthly Minimum Charge																						
5/8" - 3/4"	\$	22.34	\$	24.13	\$	26.06	\$	27.62	\$	29.00	\$	30.45	\$	31.97	\$	32.61	\$	33.27	\$	33.93	\$	34.61
1"		37.24		40.22		43.44		46.04		48.35		50.76		53.30		54.37		55.45		56.56		57.69
2"		148.95		160.87		173.74		184.16		193.37		203.04		213.19		217.45		221.80		226.24		230.76
3" Compound		238.34		257.41		278.00		294.68		309.41		324.88		341.13		347.95		354.91		362.01		369.25
3" Turbine		260.68		281.53		304.06		322.30		338.42		355.34		373.10		380.57		388.18		395.94		403.86
4" Compound		372.39		402.18		434.36		460.42		483.44		507.61		532.99		543.65		554.52		565.61		576.93
Volume Rate Per 1,000 Gal																						
- 10,000	\$	1.59	\$	1.72	\$	1.85	\$	1.97	\$	2.06	\$	2.17	\$	2.28	\$	2.32	\$	2.37	\$	2.42	\$	2.46
10,001 18,700		2.21		2.39		2.58		2.73		2.87		3.01		3.16		3.23		3.29		3.36		3.42
18,700 Above		3.93		4.24		4.58		4.86		5.10		5.36		5.62		5.74		5.85		5.97		6.09
-																						
	\$	35.06																				

2 Residential Monthly WATER BILL -- 3/4" Meter

5,000 Gal	Total	\$	30.29	\$	32.71	\$	35.33	\$	37.45	\$	39.32	\$	41.29	\$	43.35	\$	44.22	\$	45.10	\$	46.01	\$	46.93
	Total Increase				2.42		2.62		2.12		1.87		1.97		2.06		0.87		0.88		0.90		0.92
10,000 Gal	Total	\$	38.24	\$	41.30	\$	44.60	\$	47.28	\$	49.64	\$	52.13	\$	54.73	\$	55.83	\$	56.94	\$	58.08	\$	59.24
	Total Increase				3.06		3.30		2.68		2.36		2.48		2.61		1.09		1.12		1.14		1.16
30,000 Gal	Total	\$	101.88		110.03		118.83		125.96		132.26		138.87		145.81		148.73		151.70		154.74		157.83
	Total Increase				8.15		8.80		7.13		6.30		6.61		6.94		2.92		2.97		3.03		3.09
50,000 Gal	Total	\$	180.48		194.91		210.51		223.14		234.29		246.01		258.31		263.48		268.75		274.12		279.60
	Total Increase				14.44		15.59		12.63		11.16		11.71		12.30		5.17		5.27		5.37		5.48

**TOWN OF FLORENCE
WATER/WASTEWATER COST OF SERVICE MODEL**

Current 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027

WATER Summary

Scenario: 2018 02 28 Scenario 1 -- Status Quo

3 Annual Revenues and Expenses

Revenues and Expenses

Water Rate Revenues	\$ 2,798,176	\$ 3,050,022	\$ 3,296,557	\$ 3,510,040	\$ 3,707,378	\$ 3,915,606	\$ 4,114,760	\$ 4,221,275	\$ 4,330,338	\$ 4,441,901
Non-Rate Revenues	264,664	264,664	264,664	264,664	264,664	264,664	264,664	264,664	264,664	264,664
Total Revenues	3,062,840	3,314,686	3,561,221	3,774,704	3,972,042	4,180,270	4,379,424	4,485,939	4,595,002	4,706,565
Operating Expenses	1,901,265	1,972,425	2,046,557	2,124,724	2,206,097	2,290,968	2,379,510	2,471,900	2,568,327	2,668,970
Net Revenues Available for Transfers/Capital Outlays/Debt Sr	1,161,575	1,342,261	1,514,663	1,649,980	1,765,946	1,889,301	1,999,914	2,014,039	2,026,674	2,037,595
Transfers	461,770	475,623	489,892	504,589	519,726	535,318	551,378	567,919	584,956	602,505
Capital Outlays	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	660,000	1,000,000	1,000,000	276,000
Total Operating Expense/Capital Outlays	3,363,035	3,448,048	3,536,449	3,629,312	3,725,823	3,826,286	3,590,887	4,039,819	4,153,284	3,547,475
Net Revenues Available for Debt Service	161,575	342,261	514,663	649,980	765,946	889,301	1,339,914	1,014,039	1,026,674	1,761,595
<u>Water Debt Service</u>										
Current Debt Service	-	-	-	-	-	-	-	-	-	-
Future Debt Service	-	-	-	-	-	-	-	-	-	-
Total Water Debt Service	-	-	-	-	-	-	-	-	-	-
Total Cost of Service	3,363,035	3,448,048	3,536,449	3,629,312	3,725,823	3,826,286	3,590,887	4,039,819	4,153,284	3,547,475
Net Revenues Available for Contingency	(300,195)	(133,362)	24,772	145,392	246,220	353,983	788,536	446,120	441,718	1,159,090
Percent of COS	-8.9%	-3.9%	0.7%	4.0%	6.6%	9.3%	22.0%	11.0%	10.6%	32.7%

4 Revenue Adequacy Tests

Total Capital Fund Balance

Beginning Fund Balance	4,419,736	3,369,668	993,604	(825,914)	(2,050,500)	(3,240,215)	(4,342,816)	(4,612,047)	(6,354,640)	(6,863,312)
Plus Non-Rate Funding Sources	278,000	-	358,000	3,145,000	328,000	50,000	278,000	50,000	1,528,000	-
Plus Impact Fees	48,510	50,936	53,482	97,414	102,285	107,399	112,769	118,408	124,328	130,544
Plus Proceeds from the Issuance of Det \$	-	-	-	-	-	-	-	-	-	-
Total Available Funds	4,746,246	3,420,604	1,405,086	2,416,500	(1,620,215)	(3,082,816)	(3,952,047)	(4,443,640)	(4,702,312)	(6,732,767)
Less WATER Capital Improvement Plan	1,376,578	2,427,000	2,231,000	4,467,000	1,620,000	1,260,000	660,000	1,911,000	2,161,000	276,000
Ending Capital Fund Balance	3,369,668	993,604	(825,914)	(2,050,500)	(3,240,215)	(4,342,816)	(4,612,047)	(6,354,640)	(6,863,312)	(7,008,767)

Total Operating Fund Balance

Beginning Fund Balance	\$ 4,419,736	\$ 4,119,541	\$ 3,986,178	\$ 4,010,950	\$ 4,156,342	\$ 4,402,561	\$ 4,756,545	\$ 5,545,081	\$ 5,991,201	\$ 6,432,919
Net Revenues Available for Contingency	(300,195)	(133,362)	24,772	145,392	246,220	353,983	788,536	446,120	441,718	1,159,090
Ending Operating Fund Balance	4,119,541	3,986,178	4,010,950	4,156,342	4,402,561	4,756,545	5,545,081	5,991,201	6,432,919	7,592,009
Days of Operating Expenditures	791	738	715	714	728	758	851	885	914	1,038

Debt Coverage

Debt Coverage	-	-	-	-	-	-	-	-	-	-
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<div style="border: 1px solid black; padding: 5px; display: inline-block; margin: 0 auto; width: 80%;"> TOWN OF FLORENCE WATER/WASTEWATER COST OF SERVICE MODEL </div>											
	Current	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027

WATER Summary

Scenario: 2018 02 28 Scenario 1 -- Status Quo

5 Total Accounts

Water Accounts

Total Accounts	3,590	3,601	3,612	3,641	3,670	3,699	3,728	3,757	3,786	3,815
New Accounts	-	11	11	29	29	29	29	29	29	29
Avg. Annual Growth Rate		0.31%	0.31%	0.80%	0.80%	0.79%	0.78%	0.78%	0.77%	0.77%

6 Annual Water Consumed Volume

Water Consumed Volume

5/8" Inside	136,494,475	136,637,636	136,780,648	137,290,871	137,799,205	138,305,671	138,810,289	139,313,079	139,814,061	140,313,255
5/8" Outside	2,270,068	2,270,068	2,270,068	2,270,068	2,270,068	2,270,068	2,270,068	2,270,068	2,270,068	2,270,068
1" Inside	14,506,396	14,590,736	14,674,590	14,757,969	14,840,879	14,923,328	15,005,324	15,086,875	15,167,987	15,248,668
1" Outside	509,061	509,061	509,061	509,061	509,061	509,061	509,061	509,061	509,061	509,061
2" Inside	58,773,680	59,753,241	60,717,003	61,665,707	62,600,035	63,520,624	64,428,062	65,322,896	66,205,638	67,076,765
3" Compound	13,411,170	13,411,170	13,411,170	13,411,170	13,411,170	13,411,170	13,411,170	13,411,170	13,411,170	13,411,170
3" Turbine	5,380,435	5,380,435	5,380,435	5,380,435	5,380,435	5,380,435	5,380,435	5,380,435	5,380,435	5,380,435
4" Compound	717,900	717,900	717,900	717,900	717,900	717,900	717,900	717,900	717,900	717,900
4" Turbine	38,377,070	38,377,070	38,377,070	38,377,070	38,377,070	38,377,070	38,377,070	38,377,070	38,377,070	38,377,070
6" Turbine	5,129,361	5,129,361	5,129,361	5,129,361	5,129,361	5,129,361	5,129,361	5,129,361	5,129,361	5,129,361
8" Turbine	49,337,200	49,337,200	49,337,200	49,462,100	49,462,100	49,462,100	49,462,100	49,462,100	49,462,100	49,462,100
CCA	<u>148,737,135</u>	<u>148,737,135</u>	<u>148,737,135</u>	<u>148,737,135</u>	<u>148,737,135</u>	<u>148,737,135</u>	<u>148,737,135</u>	<u>148,737,135</u>	<u>148,737,135</u>	<u>148,737,135</u>
Total System	476,807,952	478,031,695	479,238,743	480,922,119	482,463,625	483,988,835	485,498,374	486,992,828	488,472,741	489,923,742

**TOWN OF FLORENCE
WATER/WASTEWATER COST OF SERVICE MODEL**

Current 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027

Forecast Summary

Scenario: 2018 02 28 Scenario 1 -- Status Quo

1 Wastewater Rates

Residential Monthly Rates

Monthly Charge	\$	18.55	\$	19.11	\$	19.68	\$	20.66	\$	22.32	\$	23.66	\$	24.37	\$	24.85	\$	25.35	\$	25.86	\$	26.37
Volume Rate Per 1,000 Gal		4.35		4.48		4.61		4.85		5.23		5.55		5.71		5.83		5.94		6.06		6.18
Non-Residential																						
Monthly Monthly Charge	\$	18.55	\$	19.11	\$	19.68	\$	20.66	\$	22.32	\$	23.66	\$	24.37	\$	24.85	\$	25.35	\$	25.86	\$	26.37
Volume Rate Per 1,000 Gal		4.37		4.50		4.64		4.87		5.26		5.57		5.74		5.85		5.97		6.09		6.21

2 Monthly Charges

51.175

Residential Water Usage

5,000 Gal	Total	\$	40.30	\$	41.51	\$	42.75	\$	44.89	\$	48.48	\$	51.39	\$	52.93	\$	53.99	\$	55.07	\$	56.17	\$	57.30
	Total Increase				1.21		1.25		2.14		3.59		2.91		1.54		1.06		1.08		1.10		1.12
	Avg. Annual Increase		3.58%																				
10,000 Gal	Total		62.05		63.91		65.83		69.12		74.65		79.13		81.50		83.13		84.80		86.49		88.22
	Total Increase				1.86		1.92		3.29		5.53		4.48		2.37		1.63		1.66		1.70		1.73
	Avg. Annual Increase		3.58%																				
Commercial																							
20,000 Gal	Total		105.95		109.13		112.40		118.02		127.46		135.11		139.17		141.95		144.79		147.68		150.64
	Total Increase				3.18		3.27		5.62		9.44		7.65		4.05		2.78		2.84		2.90		2.95
	Avg. Annual Increase		3.65%																				
50,000 Gal	Total		237.05		244.16		251.49		264.06		285.19		302.30		311.37		317.59		323.94		330.42		337.03
	Total Increase				7.11		7.32		12.57		21.12		17.11		9.07		6.23		6.35		6.48		6.61
	Avg. Annual Increase		3.65%																				

**TOWN OF FLORENCE
WATER/WASTEWATER COST OF SERVICE MODEL**

Current 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027

Forecast Summary

Scenario: 2018 02 28 Scenario 1 -- Status Quo

3 Annual Revenues and Expenses

Wastewater Revenues	\$ 4,285,214	\$ 4,433,029	\$ 4,589,691	\$ 4,860,020	\$ 5,249,799	\$ 5,556,480	\$ 5,733,470	\$ 5,868,322	\$ 6,006,274	\$ 6,147,398
Non-Rate Revenues	111,963	111,963	111,963	111,963	111,963	111,963	111,963	111,963	111,963	111,963
Total Revenues	4,397,177	4,544,992	4,701,654	4,971,983	5,361,762	5,668,443	5,845,433	5,980,285	6,118,237	6,259,361
Operating Expenses	2,041,754	2,124,998	2,212,367	2,305,214	2,402,431	2,504,248	2,610,904	2,722,653	2,839,765	2,962,523
Net Revenues Available for Transfers/Capital Outlays/Debt Service	2,355,423	2,419,993	2,489,287	2,666,769	2,959,330	3,164,196	3,234,530	3,257,632	3,278,473	3,296,838
Transfers	493,566	508,373	523,624	539,333	555,513	572,178	589,344	607,024	625,235	643,992
Capital Outlays	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	265,000	415,000	315,000	415,000	335,000
Total Operating Expense/Capital Outlays	3,535,320	3,633,371	3,735,991	3,844,547	3,957,944	3,341,426	3,615,247	3,644,677	3,880,000	3,941,515
Net Revenues Available for Debt Service	1,355,423	1,419,993	1,489,287	1,666,769	1,959,330	2,899,196	2,819,530	2,942,632	2,863,473	2,961,838
<u>Wastewater Debt Service</u>										
Current Debt Service	604,491	603,254	604,010	603,757	603,496	842,435	84,653	84,626	84,598	84,569
Future Debt Service	-	-	-	367,909	367,909	367,909	367,909	367,909	367,909	367,909
Total Wastewater Debt Service	604,491	603,254	604,010	971,666	971,405	1,210,344	452,562	452,535	452,507	452,478
Total Cost of Service	4,139,811	4,236,626	4,340,001	4,816,212	4,929,349	4,551,770	4,067,809	4,097,212	4,332,506	4,393,992
Net Revenues Available for Contingency	257,366	308,366	361,653	155,770	432,412	1,116,674	1,777,624	1,883,073	1,785,731	1,865,368
Percent of COS	6.2%	7.3%	8.3%	3.2%	8.8%	24.5%	43.7%	46.0%	41.2%	42.5%

4 Revenue Adequacy Tests**Total Capital Fund Balance**

Beginning Fund Balance	\$ 4,290,762	\$ 2,983,662	\$ 940,768	\$ (91,396)	\$ 4,124,654	\$ 3,827,884	\$ 3,633,365	\$ 3,291,172	\$ 3,051,382	\$ 2,714,073
Plus Non-Rate Funding Sources	150,000	2,000,000	1,980,000	10,040,000	15,630,000	350,000	-	1,000,000	-	-
Plus Impact Fees	21,400	22,106	22,836	66,050	68,230	70,481	72,807	75,210	77,692	80,255
Plus Proceeds from the Issuance of Det \$ 5,000,000	-	-	-	5,000,000	-	-	-	-	-	-
Total Available Funds	4,462,162	5,005,768	2,943,604	15,014,654	19,822,884	4,248,365	3,706,172	4,366,382	3,129,073	2,794,329
Less WASTEWATER Capital Improvement Plan	1,478,500	4,065,000	3,035,000	10,890,000	15,995,000	615,000	415,000	1,315,000	415,000	335,000
Ending Capital Fund Balance	2,983,662	940,768	(91,396)	4,124,654	3,827,884	3,633,365	3,291,172	3,051,382	2,714,073	2,459,329

Total Operating Fund Balance

Beginning Fund Balance	\$ 4,290,762	\$ 4,548,128	\$ 4,856,494	\$ 5,218,147	\$ 5,373,917	\$ 5,806,329	\$ 6,923,003	\$ 8,700,628	\$ 10,583,701	\$ 12,369,432
Net Revenues Available for Contingency	257,366	308,366	361,653	155,770	432,412	1,116,674	1,777,624	1,883,073	1,785,731	1,865,368
Ending Operating Fund Balance	4,548,128	4,856,494	5,218,147	5,373,917	5,806,329	6,923,003	8,700,628	10,583,701	12,369,432	14,234,800
Days of Operating Expenditures	813	834	861	851	882	1,009	1,216	1,419	1,590	1,754
<u>Debt Coverage</u>										
Debt Coverage	3.90	4.01	4.12	2.74	3.05	2.61	7.15	7.20	7.25	7.29

**TOWN OF FLORENCE
WATER/WASTEWATER COST OF SERVICE MODEL**

Current 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027

Forecast Summary

Scenario: 2018 02 28 Scenario 1 -- Status Quo

5 Total Accounts

Wastewater Accounts

Total Accounts	2,930	2,940	2,950	2,978	3,006	3,034	3,062	3,090	3,118	3,146
New Accounts	-	10	10	28	28	28	28	28	28	28
Avg. Annual Growth Rate		0.34%	0.34%	0.95%	0.94%	0.93%	0.92%	0.91%	0.91%	0.90%

6 Annual Volume

Wastewater Billing Units

Residential	103,421,396	103,692,843	103,964,290	104,933,744	105,903,199	106,872,653	107,842,108	108,811,562	109,781,016	110,750,471
Commercial	79,374,856	80,419,262	81,463,668	82,508,074	83,552,480	84,596,886	85,641,292	86,685,698	87,730,104	88,774,510
Non-Residential	655,181	655,181	655,181	655,181	655,181	655,181	655,181	655,181	655,181	655,181
Institutional	74,639,008	74,639,008	74,639,008	74,639,008	74,639,008	74,639,008	74,639,008	74,639,008	74,639,008	74,639,008
ADOC	183,352,340	183,352,340	183,352,340	183,352,340	183,352,340	183,352,340	183,352,340	183,352,340	183,352,340	183,352,340
CCA	148,737,135	148,737,135	148,737,135	148,737,135	148,737,135	148,737,135	148,737,135	148,737,135	148,737,135	148,737,135
Total System	590,179,916	591,495,769	592,811,622	594,825,483	596,839,343	598,853,204	600,867,064	602,880,924	604,894,785	606,908,645

the 1990s, the number of people in the world who are under 15 years of age is expected to increase from 1.1 billion to 1.5 billion (United Nations 1998).

There are a number of reasons why the number of children in the world is increasing. One of the main reasons is that the number of children who are surviving to adulthood is increasing. This is due to a number of factors, including improved medical care, better nutrition, and a decrease in child mortality rates.

Another reason why the number of children in the world is increasing is that the number of children who are being born is increasing. This is due to a number of factors, including a decrease in the age at which women are having children and an increase in the number of children born to each woman.

There are a number of challenges that are associated with the increasing number of children in the world. One of the main challenges is that there are not enough resources to provide for all of the children. This is particularly true in developing countries, where there is a lack of access to education, healthcare, and basic necessities.

Another challenge is that there are not enough jobs to provide for all of the children. This is particularly true in developing countries, where there is a high unemployment rate and a lack of opportunities for young people.

There are a number of ways that we can address these challenges. One way is to invest in education and healthcare for children. This will help to improve their quality of life and give them the skills and knowledge they need to succeed in life.

Another way is to create more jobs for young people. This can be done by supporting small businesses and creating new industries. This will help to provide young people with the opportunities they need to succeed in life.

There are a number of other ways that we can address these challenges. For example, we can provide financial support to families who are struggling to provide for their children. This can help to reduce the financial burden on these families and improve the lives of their children.

It is important that we take action to address these challenges. If we do not, the lives of millions of children will be affected. We need to work together to find solutions that will improve the lives of all children in the world.

There are a number of organizations that are working to address these challenges. For example, UNICEF is a leading organization that provides humanitarian and developmental assistance to children and mothers in developing countries.

Another organization is the World Bank, which provides financial and technical assistance to governments in developing countries. This assistance is used to improve infrastructure, education, and healthcare.

There are a number of other organizations that are also working to address these challenges. For example, the Bill & Melinda Gates Foundation is a leading organization that provides financial support to a wide range of organizations that are working to improve the lives of children in developing countries.

It is important that we continue to support these organizations and work together to find solutions that will improve the lives of all children in the world.

There are a number of things that we can do to help improve the lives of children in the world. For example, we can donate to organizations that are working to provide education and healthcare for children in developing countries.

Another thing that we can do is to volunteer our time and skills to help improve the lives of children in the world. This can be done in a number of ways, including tutoring, mentoring, and providing financial support.

There are a number of other things that we can do to help improve the lives of children in the world. For example, we can advocate for policies that will improve the lives of children in developing countries.

It is important that we all do our part to help improve the lives of children in the world. If we do, we can make a difference in the lives of millions of children.

There are a number of ways that we can get involved. For example, we can contact our local representatives and let them know about the challenges that children in developing countries are facing.

Another way is to contact our local media and let them know about the challenges that children in developing countries are facing. This can help to raise awareness of these issues and put pressure on our representatives to take action.

There are a number of other ways that we can get involved. For example, we can join a local organization that is working to improve the lives of children in the world.

It is important that we all do our part to help improve the lives of children in the world. If we do, we can make a difference in the lives of millions of children.

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Town of Florence

Ten Year Rate Analysis and Pro Forma

Fiscal Years 2018 - 2027



Utility System

Water
Sewer
Combined

Dashboard

Financial Projections
Bill Comparison
Comparable Utilities

Customer Class

Residential

Years

10
5

Total Net Revenues Available for Contingency

Millions

2018 2019 2020 2021 2022 2023 2024 2025 2026 2027

Debt Service

Millions

2018 2019 2020 2021 2022 2023 2024 2025 2026 2027

■ Current ■ Future

Total Revenues

Millions

2018 2019 2020 2021 2022 2023 2024 2025 2026 2027

Debt Coverage

2018 2019 2020 2021 2022 2023 2024 2025 2026 2027

— Required Debt Coverage

■ Water ■ Sewer ■ Combined Projections

Future Debt Term: 20

Water Future Bond Issues		
	Alternative	Proposed
2018	\$	-
2019	\$	-
2020	\$	-
2021	\$	-
2022	\$	-
2023	\$	-
2024	\$	-
2025	\$	-
2026	\$	-
2027	\$	-

Sewer Future Bond Issues		
	Alternative	Proposed
2018	\$	-
2019	\$	-
2020	\$	5,000,000
2021	\$	-
2022	\$	-
2023	\$	-
2024	\$	-
2025	\$	-
2026	\$	-
2027	\$	-

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Water Rate Adjustments										
Base Charge	8.00%	8.00%	6.00%	5.00%	5.00%	5.00%	2.00%	2.00%	2.00%	2.00%
Volume Charge	8.00%	8.00%	6.00%	5.00%	5.00%	5.00%	2.00%	2.00%	2.00%	2.00%
Sewer Rate Adjustments										
Base & Volume Charge	3.00%	3.00%	5.00%	8.00%	6.00%	3.00%	2.00%	2.00%	2.00%	2.00%

**TOWN OF FLORENCE
WATER/WASTEWATER COST OF SERVICE MODEL**

Prior 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027

Forecast Summary

Scenario: 2018 02 28 Scenario 2 -- Add Resid Tier

1 Water and Wastewater Rates

Water Rates -- Residential

Monthly Minimum Charge

5/8" - 3/4"	\$ 22.34	\$ 24.13	\$ 26.06	\$ 27.62	\$ 29.00	\$ 30.45	\$ 31.97	\$ 32.61	\$ 33.27	\$ 33.93	\$ 34.61
1"	37.24	40.22	43.44	46.04	48.35	50.76	53.30	54.37	55.45	56.56	57.69
1 1/2"	93.10	120.64	130.29	138.10	145.01	152.26	159.87	163.07	166.33	169.66	173.05
2"	148.95	160.87	173.74	184.16	193.37	203.04	213.19	217.45	221.80	226.24	230.76
3" Compound	238.34	257.41	278.00	294.68	309.41	324.88	341.13	347.95	354.91	362.01	369.25
3" Turbine	260.68	281.53	304.06	322.30	338.42	355.34	373.10	380.57	388.18	395.94	403.86
4" Compound	372.39	402.18	434.36	460.42	483.44	507.61	532.99	543.65	554.52	565.61	576.93

Volume Rate Per 1,000 Gal

- 5,000	\$ 1.59	\$ 1.46	\$ 1.57	\$ 1.67	\$ 1.75	\$ 1.84	\$ 1.93	\$ 1.97	\$ 2.01	\$ 2.05	\$ 2.09
5,001 10,000	1.59	2.19	2.37	2.51	2.64	2.77	2.91	2.96	3.02	3.08	3.14
10,001 20,000	2.21	3.28	3.55	3.76	3.95	4.14	4.35	4.44	4.53	4.62	4.71
20,001 Above	3.93	4.92	5.32	5.64	5.92	6.22	6.53	6.66	6.79	6.93	7.06

Wastewater Rates -- Residential

Monthly Charge	\$ 18.55	\$ 19.11	\$ 19.68	\$ 20.66	\$ 22.32	\$ 23.66	\$ 24.37	\$ 24.85	\$ 25.35	\$ 25.86	\$ 26.37
Volume Rate Per 1,000 Gallons	4.35	4.48	4.61	4.85	5.23	5.55	5.71	5.83	5.94	6.06	6.18

2 Residential Monthly Bill -- 3/4" Meter

Water Gallons

Water Gallons		2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
5,000	Water	\$ 30.29	\$ 31.42	\$ 33.93	\$ 35.97	\$ 37.76	\$ 39.65	\$ 41.64	\$ 42.47	\$ 43.32	\$ 44.18
	WW	40.30	41.51	42.75	44.89	48.48	51.39	52.93	53.99	55.07	56.17
	Total	70.59	72.93	76.68	80.86	86.25	91.05	94.57	96.46	98.39	100.36
Increase		2.34	3.76	4.17	5.39	4.80	3.52	1.89	1.93	1.97	2.01
10,000	Water	\$ 38.24	\$ 42.38	\$ 45.77	\$ 48.52	\$ 50.94	\$ 53.49	\$ 56.16	\$ 57.29	\$ 58.43	\$ 59.60
	WW	62.05	63.91	65.83	69.12	74.65	79.13	81.50	83.13	84.80	86.49
	Total	100.29	106.29	111.60	117.64	125.59	132.62	137.67	140.42	143.23	146.09
Increase		6.00	5.31	6.04	7.96	7.03	5.05	2.75	2.81	2.86	2.92
20,000	Water	\$ 63.21	\$ 75.21	\$ 81.23	\$ 86.10	\$ 90.41	\$ 94.93	\$ 99.67	\$ 101.67	\$ 103.70	\$ 105.77
	WW	105.55	108.72	111.98	117.58	126.98	134.60	138.64	141.41	144.24	147.13
	Total	168.76	183.93	193.21	203.68	217.39	229.53	238.31	243.08	247.94	252.90
Increase		15.16	9.28	10.47	13.71	12.14	8.78	4.77	4.86	4.96	5.06
30,000	Water	\$ 99.64	\$ 124.46	\$ 134.42	\$ 142.48	\$ 149.60	\$ 157.09	\$ 164.94	\$ 168.24	\$ 171.60	\$ 175.04
	WW	149.05	153.52	158.13	166.03	179.32	190.08	195.78	199.69	203.69	207.76
	Total	248.69	277.98	292.54	308.51	328.92	347.16	360.72	367.93	375.29	382.80
Increase		29.29	14.56	15.97	20.41	18.24	13.56	7.21	7.36	7.51	7.66

TOWN OF FLORENCE
WATER/WASTEWATER COST OF SERVICE MODEL

Prior 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027

Forecast Summary**Scenario: 2018 02 28 Scenario 2 -- Add Resid Tier****3 Annual Revenues and Expenses****Revenues and Expenses**

Water Rate Revenues	\$ 2,797,473	\$ 3,049,251	\$ 3,295,721	\$ 3,509,149	\$ 3,706,436	\$ 3,914,609	\$ 4,113,711	\$ 4,220,198	\$ 4,329,232	\$ 4,440,765
Wastewater Revenues	4,285,214	4,433,029	4,589,691	4,860,020	5,249,799	5,556,480	5,733,470	5,868,322	6,006,274	6,147,398
Non-Rate Revenues	376,627	376,627	376,627	376,627	376,627	376,627	376,627	376,627	376,627	376,627
Total Revenues	7,459,314	7,858,907	8,262,038	8,745,796	9,332,862	9,847,717	10,223,809	10,465,147	10,712,133	10,964,790
Operating Expenses	3,943,019	4,097,424	4,258,924	4,429,938	4,608,528	4,795,216	4,990,413	5,194,553	5,408,092	5,631,493
Net Revenues Available for Transfers/Capital Outlays/Debt Sen	3,516,295	3,761,484	4,003,114	4,315,858	4,724,334	5,052,500	5,233,395	5,270,594	5,304,041	5,333,297
Transfers	955,336	983,996	1,013,516	1,043,921	1,075,239	1,107,496	1,140,721	1,174,943	1,210,191	1,246,497
Capital Outlays	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	1,265,000	1,075,000	1,315,000	1,415,000	611,000
Total Operating/Transfers/Capital Outlays	6,898,355	7,081,420	7,272,440	7,473,859	7,683,767	7,167,713	7,206,135	7,684,496	8,033,283	7,488,990
Net Revenues Available for Debt Service	1,516,295	1,761,484	2,003,114	2,315,858	2,724,334	3,787,500	4,158,395	3,955,594	3,889,041	4,722,297
Water Current Debt Service	-	-	-	-	-	-	-	-	-	-
Water Future Debt Service	-	-	-	-	-	-	-	-	-	-
Wastewater Current Debt Service	604,491	603,254	604,010	603,757	603,496	842,435	84,653	84,626	84,598	84,569
Wastewater Future Debt Service	-	-	-	367,909	367,909	367,909	367,909	367,909	367,909	367,909
Total Debt Service	604,491	603,254	604,010	971,666	971,405	1,210,344	452,562	452,535	452,507	452,478
Total Cost of Service	7,502,846	7,684,674	7,876,450	8,445,525	8,655,172	8,378,056	7,658,696	8,137,030	8,485,790	7,941,468
Net Revenues Available for Contingency	(43,533)	174,233	385,588	300,271	677,690	1,469,660	2,565,112	2,328,117	2,226,343	3,023,322
Percent of COS	-0.6%	2.3%	4.9%	3.6%	7.8%	17.5%	33.5%	28.6%	26.2%	38.1%

**TOWN OF FLORENCE
WATER/WASTEWATER COST OF SERVICE MODEL**

Prior 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027

Forecast Summary**Scenario: 2018 02 28 Scenario 2 -- Add Resid Tier****4 Revenue Adequacy Tests****Total Capital Fund Balance**

Beginning Fund Balance	\$	8,710,498	\$	6,353,330	\$	1,934,372	\$	(917,310)	\$	2,074,154	\$	587,668	\$	(709,451)	\$	(1,320,875)	\$	(3,303,258)	\$	(4,149,238)
Plus Non-Rate Funding Sources		428,000		2,000,000		2,338,000		13,185,000		15,958,000		400,000		278,000		1,050,000		1,528,000		-
Plus Impact Fees		69,910		73,042		76,318		163,464		170,514		177,880		185,576		193,617		202,020		210,800
Plus Proceeds from the Issuance of Deb	\$	5,000,000		-		-		5,000,000		-		-		-		-		-		-
Total Available Funds		9,208,408		8,426,372		4,348,690		17,431,154		18,202,668		1,165,549		(245,875)		(77,258)		(1,573,238)		(3,938,439)
Less Capital Improvement Plan		2,855,078		6,492,000		5,266,000		15,357,000		17,615,000		1,875,000		1,075,000		3,226,000		2,576,000		611,000
Ending Capital Fund Balance		6,353,330		1,934,372		(917,310)		2,074,154		587,668		(709,451)		(1,320,875)		(3,303,258)		(4,149,238)		(4,549,439)

Total Operating Fund Balance

Beginning Fund Balance	\$	8,710,498	\$	8,666,965	\$	8,841,199	\$	9,226,787	\$	9,527,058	\$	10,204,748	\$	11,674,408	\$	14,239,521	\$	16,567,638	\$	18,793,981
Net Revenues Available for Contingency		(43,533)		174,233		385,588		300,271		677,690		1,469,660		2,565,112		2,328,117		2,226,343		3,023,322
Ending Operating Fund Balance		8,666,965		8,841,199		9,226,787		9,527,058		10,204,748		11,674,408		14,239,521		16,567,638		18,793,981		21,817,303
Days of Operating Expenditures		802		788		791		785		808		889		1,041		1,164		1,268		1,414

Debt Coverage

Debt Coverage – Water and Wastewater Fund		5.82		6.24		6.63		4.44		4.86		4.17		11.56		11.65		11.72		11.79
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5 Total Accounts**Water Accounts**

Total Accounts		3,590		3,601		3,612		3,641		3,670		3,699		3,728		3,757		3,786		3,815
New Accounts		-		11		11		29		29		29		29		29		29		29
Avg. Annual Growth Rate				0.31%		0.31%		0.80%		0.80%		0.79%		0.78%		0.78%		0.77%		0.77%

Wastewater Accounts

Total Accounts		2,930		2,940		2,950		2,978		3,006		3,034		3,062		3,090		3,118		3,146
New Accounts		-		10		10		28		28		28		28		28		28		28
Avg. Annual Growth Rate				0.34%		0.34%		0.95%		0.94%		0.93%		0.92%		0.91%		0.91%		0.90%

<div style="border: 1px solid black; padding: 5px; display: inline-block; background-color: white; color: black;"> TOWN OF FLORENCE WATER/WASTEWATER COST OF SERVICE MODEL </div>											
	Prior	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027

Forecast Summary

Scenario: 2018 02 28 Scenario 2 -- Add Resid Tier

6 Annual Volume

Water Volume

5/8" Inside	136,494,475	136,637,636	136,780,648	137,290,871	137,799,205	138,305,671	138,810,289	139,313,079	139,814,061	140,313,255
5/8" Outside	2,270,068	2,270,068	2,270,068	2,270,068	2,270,068	2,270,068	2,270,068	2,270,068	2,270,068	2,270,068
1" Inside	14,506,396	14,590,736	14,674,590	14,757,969	14,840,879	14,923,328	15,005,324	15,086,875	15,167,987	15,248,668
1" Outside	509,061	509,061	509,061	509,061	509,061	509,061	509,061	509,061	509,061	509,061
2" Inside	58,773,680	59,753,241	60,717,003	61,665,707	62,600,035	63,520,624	64,428,062	65,322,896	66,205,638	67,076,765
3" Compound	13,411,170	13,411,170	13,411,170	13,411,170	13,411,170	13,411,170	13,411,170	13,411,170	13,411,170	13,411,170
3" Turbine	5,380,435	5,380,435	5,380,435	5,380,435	5,380,435	5,380,435	5,380,435	5,380,435	5,380,435	5,380,435
4" Compound	717,900	717,900	717,900	717,900	717,900	717,900	717,900	717,900	717,900	717,900
4" Turbine	38,377,070	38,377,070	38,377,070	38,377,070	38,377,070	38,377,070	38,377,070	38,377,070	38,377,070	38,377,070
6" Turbine	5,129,361	5,129,361	5,129,361	5,129,361	5,129,361	5,129,361	5,129,361	5,129,361	5,129,361	5,129,361
8" Turbine	49,337,200	49,337,200	49,337,200	49,462,100	49,462,100	49,462,100	49,462,100	49,462,100	49,462,100	49,462,100
CCA	148,737,135	148,737,135	148,737,135	148,737,135	148,737,135	148,737,135	148,737,135	148,737,135	148,737,135	148,737,135
Total System	476,807,952	478,031,695	479,238,743	480,922,119	482,463,625	483,988,835	485,498,374	486,992,828	488,472,741	489,923,742

Wastewater Billing Units

Residential	103,421,396	103,692,843	103,964,290	104,933,744	105,903,199	106,872,653	107,842,108	108,811,562	109,781,016	110,750,471
Commercial	79,374,856	80,419,262	81,463,668	82,508,074	83,552,480	84,596,886	85,641,292	86,685,698	87,730,104	88,774,510
Non-Residential	655,181	655,181	655,181	655,181	655,181	655,181	655,181	655,181	655,181	655,181
Institutional	74,639,008	74,639,008	74,639,008	74,639,008	74,639,008	74,639,008	74,639,008	74,639,008	74,639,008	74,639,008
ADOC	183,352,340	183,352,340	183,352,340	183,352,340	183,352,340	183,352,340	183,352,340	183,352,340	183,352,340	183,352,340
CCA	148,737,135	148,737,135	148,737,135	148,737,135	148,737,135	148,737,135	148,737,135	148,737,135	148,737,135	148,737,135
Total System	590,179,916	591,495,769	592,811,622	594,825,483	596,839,343	598,853,204	600,867,064	602,880,924	604,894,785	606,908,645

<div style="border: 1px solid black; padding: 5px; display: inline-block; background-color: white; color: black;"> TOWN OF FLORENCE WATER/WASTEWATER COST OF SERVICE MODEL </div>											
	Current	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027

WATER Summary

Scenario: 2018 02 28 Scenario 2 -- Add Resid Tier

1 Water Rates -- Residential

Monthly Minimum Charge

5/8" - 3/4"	\$	22.34	\$	24.13	\$	26.06	\$	27.62	\$	29.00	\$	30.45	\$	31.97	\$	32.61	\$	33.27	\$	33.93	\$	34.61
1"		37.24		40.22		43.44		46.04		48.35		50.76		53.30		54.37		55.45		56.56		57.69
2"		148.95		160.87		173.74		184.16		193.37		203.04		213.19		217.45		221.80		226.24		230.76
3" Compound		238.34		257.41		278.00		294.68		309.41		324.88		341.13		347.95		354.91		362.01		369.25
3" Turbine		260.68		281.53		304.06		322.30		338.42		355.34		373.10		380.57		388.18		395.94		403.86
4" Compound		372.39		402.18		434.36		460.42		483.44		507.61		532.99		543.65		554.52		565.61		576.93

Volume Rate Per 1,000 Gal

- 5,000	\$	1.35	\$	1.46	\$	1.57	\$	1.67	\$	1.75	\$	1.84	\$	1.93	\$	1.97	\$	2.01	\$	2.05	\$	2.09
5,001 10,000		2.03		2.19		2.37		2.51		2.64		2.77		2.91		2.96		3.02		3.08		3.14
10,001 20,000		3.04		3.28		3.55		3.76		3.95		4.14		4.35		4.44		4.53		4.62		4.71
20,001 Above																						
	\$	33.14																				

2 Residential Monthly WATER BILL -- 3/4" Meter

5,000 Gal Total	\$	29.09	\$	31.42	\$	33.93	\$	35.97	\$	37.76	\$	39.65	\$	41.64	\$	42.47	\$	43.32	\$	44.18	\$	45.07
Total Increase				2.33		2.51		2.04		1.80		1.89		1.98		0.83		0.85		0.87		0.88
10,000 Gal Total	\$	35.84	\$	38.71	\$	41.80	\$	44.31	\$	46.53	\$	48.85	\$	51.30	\$	52.32	\$	53.37	\$	54.44	\$	55.53
Total Increase				2.87		3.10		2.51		2.22		2.33		2.44		1.03		1.05		1.07		1.09
30,000 Gal Total	\$	87.85		94.88		102.47		108.62		114.05		119.75		125.74		128.26		130.82		133.44		136.11
Total Increase				7.03		7.59		6.15		5.43		5.70		5.99		2.51		2.57		2.62		2.67
50,000 Gal Total	\$	148.65		160.55		173.39		183.79		192.98		202.63		212.76		217.02		221.36		225.79		230.30
Total Increase				11.89		12.84		10.40		9.19		9.65		10.13		4.26		4.34		4.43		4.52

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	Current	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027

WATER Summary

Scenario: 2018 02 28 Scenario 2 -- Add Resid Tier

3 Annual Revenues and Expenses

Revenues and Expenses

Water Rate Revenues	\$	2,797,473	\$	3,049,251	\$	3,295,721	\$	3,509,149	\$	3,706,436	\$	3,914,609	\$	4,113,711	\$	4,220,198	\$	4,329,232	\$	4,440,765
Non-Rate Revenues		264,664		264,664		264,664		264,664		264,664		264,664		264,664		264,664		264,664		264,664
Total Revenues		3,062,137		3,313,915		3,560,385		3,773,813		3,971,100		4,179,273		4,378,375		4,484,862		4,593,896		4,705,429
Operating Expenses		1,901,265		1,972,425		2,046,557		2,124,724		2,206,097		2,290,968		2,379,510		2,471,900		2,568,327		2,668,970
Net Revenues Available for Transfers/Capital Outlays/Debt Service		1,160,872		1,341,490		1,513,827		1,649,089		1,765,004		1,888,305		1,998,865		2,012,962		2,025,569		2,036,459
Transfers		461,770		475,623		489,892		504,589		519,726		535,318		551,378		567,919		584,956		602,505
Capital Outlays		1,000,000		1,000,000		1,000,000		1,000,000		1,000,000		1,000,000		660,000		1,000,000		1,000,000		276,000
Total Operating Expense/Capital Outlays		3,363,035		3,448,048		3,536,449		3,629,312		3,725,823		3,826,286		3,590,887		4,039,819		4,153,284		3,547,475
Net Revenues Available for Debt Service		160,872		341,490		513,827		649,089		765,004		888,305		1,338,865		1,012,962		1,025,569		1,760,459
<u>Water Debt Service</u>																				
Current Debt Service		-		-		-		-		-		-		-		-		-		-
Future Debt Service		-		-		-		-		-		-		-		-		-		-
Total Water Debt Service		-		-		-		-		-		-		-		-		-		-
Total Cost of Service		3,363,035		3,448,048		3,536,449		3,629,312		3,725,823		3,826,286		3,590,887		4,039,819		4,153,284		3,547,475
Net Revenues Available for Contingency		(300,898)		(134,133)		23,936		144,501		245,277		352,987		787,488		445,044		440,612		1,157,954
Percent of COS		-8.9%		-3.9%		0.7%		4.0%		6.6%		9.2%		21.9%		11.0%		10.6%		32.6%

4 Revenue Adequacy Tests

Total Capital Fund Balance

Beginning Fund Balance		4,419,736		3,369,668		993,604		(825,914)		(2,050,500)		(3,240,215)		(4,342,816)		(4,612,047)		(6,354,640)		(6,863,312)
Plus Non-Rate Funding Sources		278,000		-		358,000		3,145,000		328,000		50,000		278,000		50,000		1,528,000		-
Plus Impact Fees		48,510		50,936		53,482		97,414		102,285		107,399		112,769		118,408		124,328		130,544
Plus Proceeds from the Issuance of Debt		-		-		-		-		-		-		-		-		-		-
Total Available Funds		4,746,246		3,420,604		1,405,086		2,416,500		(1,620,215)		(3,082,816)		(3,952,047)		(4,443,640)		(4,702,312)		(6,732,767)
Less WATER Capital Improvement Plan		1,376,578		2,427,000		2,231,000		4,467,000		1,620,000		1,260,000		660,000		1,911,000		2,161,000		276,000
Ending Capital Fund Balance		3,369,668		993,604		(825,914)		(2,050,500)		(3,240,215)		(4,342,816)		(4,612,047)		(6,354,640)		(6,863,312)		(7,008,767)

Total Operating Fund Balance

Beginning Fund Balance	\$	4,419,736	\$	4,118,838	\$	3,984,705	\$	4,008,640	\$	4,153,141	\$	4,398,419	\$	4,751,405	\$	5,538,893	\$	5,983,937	\$	6,424,549
Net Revenues Available for Contingency		(300,898)		(134,133)		23,936		144,501		245,277		352,987		787,488		445,044		440,612		1,157,954
Ending Operating Fund Balance		4,118,838		3,984,705		4,008,640		4,153,141		4,398,419		4,751,405		5,538,893		5,983,937		6,424,549		7,582,503
Days of Operating Expenditures		791		737		715		713		728		757		850		884		913		1,037
<u>Debt Coverage</u>																				
Debt Coverage		-		-		-		-		-		-		-		-		-		-

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	Current	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027

WATER Summary

Scenario: 2018 02 28 Scenario 2 -- Add Resid Tier

5 Total Accounts

Water Accounts

Total Accounts	3,590	3,601	3,612	3,641	3,670	3,699	3,728	3,757	3,786	3,815
New Accounts	-	11	11	29	29	29	29	29	29	29
Avg. Annual Growth Rate		0.31%	0.31%	0.60%	0.80%	0.79%	0.78%	0.78%	0.77%	0.77%

6 Annual Water Consumed Volume

Water Consumed Volume

5/8" Inside	136,494,475	136,637,636	136,780,648	137,290,871	137,799,205	138,305,671	138,810,289	139,313,079	139,814,061	140,313,255
5/8" Outside	2,270,068	2,270,068	2,270,068	2,270,068	2,270,068	2,270,068	2,270,068	2,270,068	2,270,068	2,270,068
1" Inside	14,506,396	14,590,736	14,674,590	14,757,969	14,840,879	14,923,328	15,005,324	15,086,875	15,167,987	15,248,668
1" Outside	509,061	509,061	509,061	509,061	509,061	509,061	509,061	509,061	509,061	509,061
2" Inside	58,773,680	59,753,241	60,717,003	61,665,707	62,600,035	63,520,624	64,428,062	65,322,896	66,205,638	67,076,765
3" Compound	13,411,170	13,411,170	13,411,170	13,411,170	13,411,170	13,411,170	13,411,170	13,411,170	13,411,170	13,411,170
3" Turbine	5,380,435	5,380,435	5,380,435	5,380,435	5,380,435	5,380,435	5,380,435	5,380,435	5,380,435	5,380,435
4" Compound	717,900	717,900	717,900	717,900	717,900	717,900	717,900	717,900	717,900	717,900
4" Turbine	38,377,070	38,377,070	38,377,070	38,377,070	38,377,070	38,377,070	38,377,070	38,377,070	38,377,070	38,377,070
6" Turbine	5,129,361	5,129,361	5,129,361	5,129,361	5,129,361	5,129,361	5,129,361	5,129,361	5,129,361	5,129,361
8" Turbine	49,337,200	49,337,200	49,337,200	49,462,100	49,462,100	49,462,100	49,462,100	49,462,100	49,462,100	49,462,100
CCA	148,737,135	148,737,135	148,737,135	148,737,135	148,737,135	148,737,135	148,737,135	148,737,135	148,737,135	148,737,135
Total System	476,807,952	478,031,695	479,238,743	480,922,119	482,463,625	483,988,835	485,498,374	486,992,828	488,472,741	489,923,742

**TOWN OF FLORENCE
WATER/WASTEWATER COST OF SERVICE MODEL**

Current 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027

Forecast Summary

Scenario: 2018 02 28 Scenario 2 -- Add Resid Tier

1 Wastewater Rates

Residential Monthly Rates

Monthly Charge	\$	18.55	\$	19.11	\$	19.68	\$	20.66	\$	22.32	\$	23.66	\$	24.37	\$	24.85	\$	25.35	\$	25.86	\$	26.37
Volume Rate Per 1,000 Gal		4.35		4.48		4.61		4.85		5.23		5.55		5.71		5.83		5.94		6.06		6.18

Non-Residential

Monthly Monthly Charge	\$	18.55	\$	19.11	\$	19.68	\$	20.66	\$	22.32	\$	23.66	\$	24.37	\$	24.85	\$	25.35	\$	25.86	\$	26.37
Volume Rate Per 1,000 Gal		4.37		4.50		4.64		4.87		5.26		5.57		5.74		5.85		5.97		6.09		6.21

2 Monthly Charges

51.175

Residential Water Usage

5,000 Gal Total	\$	40.30	\$	41.51	\$	42.75	\$	44.89	\$	48.48	\$	51.39	\$	52.93	\$	53.99	\$	55.07	\$	56.17	\$	57.30
Total Increase				1.21		1.25		2.14		3.59		2.91		1.54		1.06		1.08		1.10		1.12
Avg. Annual Increase				3.58%																		

10,000 Gal Total		62.05		63.91		65.83		69.12		74.65		79.13		81.50		83.13		84.80		86.49		88.22
Total Increase				1.86		1.92		3.29		5.53		4.48		2.37		1.63		1.66		1.70		1.73
Avg. Annual Increase				3.58%																		

Commercial

20,000 Gal Total		105.95		109.13		112.40		118.02		127.46		135.11		139.17		141.95		144.79		147.68		150.64
Total Increase				3.18		3.27		5.62		9.44		7.65		4.05		2.78		2.84		2.90		2.95
Avg. Annual Increase				3.65%																		

50,000 Gal Total		237.05		244.16		251.49		264.06		285.19		302.30		311.37		317.59		323.94		330.42		337.03
Total Increase				7.11		7.32		12.57		21.12		17.11		9.07		6.23		6.35		6.48		6.61
Avg. Annual Increase				3.65%																		

<div style="border: 1px solid black; padding: 5px; display: inline-block; background-color: white; color: black;"> TOWN OF FLORENCE WATER/WASTEWATER COST OF SERVICE MODEL </div>											
	Current	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027

Forecast Summary
Scenario: 2018 02 28 Scenario 2 -- Add Resid Tier

3 Annual Revenues and Expenses																						
Wastewater Revenues	\$	4,285,214	\$	4,433,029	\$	4,589,691	\$	4,860,020	\$	5,249,799	\$	5,556,480	\$	5,733,470	\$	5,868,322	\$	6,006,274	\$	6,147,398		
Non-Rate Revenues		111,963		111,963		111,963		111,963		111,963		111,963		111,963		111,963		111,963		111,963		111,963
Total Revenues		4,397,177		4,544,992		4,701,654		4,971,983		5,361,762		5,668,443		5,845,433		5,980,285		6,118,237		6,259,361		
Operating Expenses		2,041,754		2,124,998		2,212,367		2,305,214		2,402,431		2,504,248		2,610,904		2,722,653		2,839,765		2,962,523		
Net Revenues Available for Transfers/Capital Outlays/Debt Sr		2,355,423		2,419,993		2,489,287		2,666,769		2,959,330		3,164,196		3,234,530		3,257,632		3,278,473		3,296,838		
Transfers		493,566		508,373		523,624		539,333		555,513		572,178		589,344		607,024		625,235		643,992		
Capital Outlays		1,000,000		1,000,000		1,000,000		1,000,000		1,000,000		265,000		415,000		315,000		415,000		335,000		
Total Operating Expense/Capital Outlays		3,535,320		3,633,371		3,735,991		3,844,547		3,957,944		3,341,426		3,615,247		3,644,677		3,880,000		3,941,515		
Net Revenues Available for Debt Service		1,355,423		1,419,993		1,489,287		1,666,769		1,959,330		2,899,196		2,819,530		2,942,632		2,863,473		2,961,838		
<u>Wastewater Debt Service</u>																						
Current Debt Service		604,491		603,254		604,010		603,757		603,496		842,435		84,653		84,626		84,598		84,569		
Future Debt Service		-		-		-		367,909		367,909		367,909		367,909		367,909		367,909		367,909		
Total Wastewater Debt Service		604,491		603,254		604,010		971,666		971,405		1,210,344		452,562		452,535		452,507		452,478		
Total Cost of Service		4,139,811		4,236,626		4,340,001		4,816,212		4,929,349		4,551,770		4,067,809		4,097,212		4,332,506		4,393,992		
Net Revenues Available for Contingency		257,366		308,366		361,653		155,770		432,412		1,116,674		1,777,624		1,883,073		1,785,731		1,865,368		
Percent of COS		6.2%		7.3%		8.3%		3.2%		8.8%		24.5%		43.7%		46.0%		41.2%		42.5%		

4 Revenue Adequacy Tests																				
<u>Total Capital Fund Balance</u>																				
Beginning Fund Balance	\$	4,290,762	\$	2,983,662	\$	940,768	\$	(91,396)	\$	4,124,654	\$	3,827,884	\$	3,633,365	\$	3,291,172	\$	3,051,382	\$	2,714,073
Plus Non-Rate Funding Sources		150,000		2,000,000		1,980,000		10,040,000		15,630,000		350,000		-		1,000,000		-		-
Plus Impact Fees		21,400		22,106		22,836		66,050		68,230		70,481		72,807		75,210		77,692		80,255
Plus Proceeds from the Issuance of Det \$ 5,000,000		-		-		-		5,000,000		-		-		-		-		-		-
Total Available Funds		4,462,162		5,005,768		2,943,604		15,014,654		19,822,884		4,248,365		3,706,172		4,366,382		3,129,073		2,794,329
Less WASTEWATER Capital Improvement Plan		1,478,500		4,065,000		3,035,000		10,890,000		15,995,000		615,000		415,000		1,315,000		415,000		335,000
Ending Capital Fund Balance		2,983,662		940,768		(91,396)		4,124,654		3,827,884		3,633,365		3,291,172		3,051,382		2,714,073		2,459,329
<u>Total Operating Fund Balance</u>																				
Beginning Fund Balance	\$	4,290,762	\$	4,548,128	\$	4,856,494	\$	5,218,147	\$	5,373,917	\$	5,806,329	\$	6,923,003	\$	8,700,628	\$	10,583,701	\$	12,369,432
Net Revenues Available for Contingency		257,366		308,366		361,653		155,770		432,412		1,116,674		1,777,624		1,883,073		1,785,731		1,865,368
Ending Operating Fund Balance		4,548,128		4,856,494		5,218,147		5,373,917		5,806,329		6,923,003		8,700,628		10,583,701		12,369,432		14,234,800
Days of Operating Expenditures		813		834		861		851		882		1,009		1,216		1,419		1,590		1,754
<u>Debt Coverage</u>																				
Debt Coverage		3.90		4.01		4.12		2.74		3.05		2.61		7.15		7.20		7.25		7.29

**TOWN OF FLORENCE
WATER/WASTEWATER COST OF SERVICE MODEL**

Current 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027

Forecast Summary

Scenario: 2018 02 28 Scenario 2 -- Add Resid Tier

5 Total Accounts

Wastewater Accounts

Total Accounts	2,930	2,940	2,950	2,978	3,006	3,034	3,062	3,090	3,118	3,146
New Accounts	-	10	10	28	28	28	28	28	28	28
Avg. Annual Growth Rate		0.34%	0.34%	0.95%	0.94%	0.93%	0.92%	0.91%	0.91%	0.90%

6 Annual Volume

Wastewater Billing Units

Residential	103,421,396	103,692,843	103,964,290	104,933,744	105,903,199	106,872,653	107,842,108	108,811,562	109,781,016	110,750,471
Commercial	79,374,856	80,419,262	81,463,668	82,508,074	83,552,480	84,596,886	85,641,292	86,685,698	87,730,104	88,774,510
Non-Residential	655,181	655,181	655,181	655,181	655,181	655,181	655,181	655,181	655,181	655,181
Institutional	74,639,008	74,639,008	74,639,008	74,639,008	74,639,008	74,639,008	74,639,008	74,639,008	74,639,008	74,639,008
ADOC	183,352,340	183,352,340	183,352,340	183,352,340	183,352,340	183,352,340	183,352,340	183,352,340	183,352,340	183,352,340
CCA	148,737,135	148,737,135	148,737,135	148,737,135	148,737,135	148,737,135	148,737,135	148,737,135	148,737,135	148,737,135
Total System	590,179,916	591,495,769	592,811,622	594,825,483	596,839,343	598,853,204	600,867,064	602,880,924	604,894,785	606,908,645



Town of Florence

Ten Year Rate Analysis and Pro Forma

Fiscal Years 2018 - 2027



Utility System

Water
Sewer
Combined

Dashboard

Financial Projections
Bill Comparison
Comparable Utilities

Customer Class

Residential

Years

10
5

Total Net Revenues Available for Contingency

Debt Service

Total Revenues

Debt Coverage

Combined Projections

Future Debt Term: 20

Water Future Bond Issues		
	Alternative	Proposed
2018	\$	-
2019	\$	-
2020	\$	-
2021	\$	-
2022	\$	-
2023	\$	-
2024	\$	-
2025	\$	-
2026	\$	-
2027	\$	-

Sewer Future Bond Issues		
	Alternative	Proposed
2018	\$	-
2019	\$	-
2020	\$	5,000,000
2021	\$	-
2022	\$	-
2023	\$	-
2024	\$	-
2025	\$	-
2026	\$	-
2027	\$	-

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Water Rate Adjustments										
Base Charge	8.00%	8.00%	6.00%	5.00%	5.00%	5.00%	2.00%	2.00%	2.00%	2.00%
Volume Charge	8.00%	8.00%	6.00%	5.00%	5.00%	5.00%	2.00%	2.00%	2.00%	2.00%
Sewer Rate Adjustments										
Base & Volume Charge	3.00%	3.00%	5.00%	8.00%	6.00%	3.00%	2.00%	2.00%	2.00%	2.00%

**TOWN OF FLORENCE
WATER/WASTEWATER COST OF SERVICE MODEL**

Prior 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027

Forecast Summary

Scenario: 2018 02 28 Scenario 3 -- Securing Future Water

1 Water and Wastewater Rates

Water Rates -- Residential

Monthly Minimum Charge

5/8" - 3/4"	\$ 22.34	\$ 24.13	\$ 26.06	\$ 27.62	\$ 29.00	\$ 30.45	\$ 31.97	\$ 32.61	\$ 33.27	\$ 33.93	\$ 34.61
1"	37.24	40.22	43.44	46.04	48.35	50.76	53.30	54.37	55.45	56.56	57.69
1 1/2"	93.10	120.64	130.29	138.10	145.01	152.26	159.87	163.07	166.33	169.66	173.05
2"	148.95	160.87	173.74	184.16	193.37	203.04	213.19	217.45	221.80	226.24	230.76
3" Compound	238.34	257.41	278.00	294.68	309.41	324.88	341.13	347.95	354.91	362.01	369.25
3" Turbine	260.68	281.53	304.06	322.30	338.42	355.34	373.10	380.57	388.18	395.94	403.86
4" Compound	372.39	402.18	434.36	460.42	483.44	507.61	532.99	543.65	554.52	565.61	576.93

Securing Future Water

	-	1.50	1.62	1.72	1.80	1.89	1.99	2.03	2.07	2.11	2.15
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Volume Rate Per 1,000 Gal

- 5,000	\$ 1.59	\$ 1.46	\$ 1.57	\$ 1.67	\$ 1.75	\$ 1.84	\$ 1.93	\$ 1.97	\$ 2.01	\$ 2.05	\$ 2.09
5,001 10,000	1.59	2.19	2.37	2.51	2.64	2.77	2.91	2.96	3.02	3.08	3.14
10,001 20,000	2.21	3.28	3.55	3.76	3.95	4.14	4.35	4.44	4.53	4.62	4.71
20,001 Above	3.93	4.92	5.32	5.64	5.92	6.22	6.53	6.66	6.79	6.93	7.06

Wastewater Rates -- Residential

Monthly Charge	\$ 18.55	\$ 19.11	\$ 19.68	\$ 20.66	\$ 22.32	\$ 23.66	\$ 24.37	\$ 24.85	\$ 25.35	\$ 25.86	\$ 26.37
Volume Rate Per 1,000 Gallons	4.35	4.48	4.61	4.85	5.23	5.55	5.71	5.83	5.94	6.06	6.18

2 Residential Monthly Bill -- 3/4" Meter

Water

Gallons

5,000	Water	\$ 30.29	\$ 32.92	\$ 35.55	\$ 37.68	\$ 39.57	\$ 41.55	\$ 43.62	\$ 44.50	\$ 45.39	\$ 46.29	\$ 47.22
	WW	40.30	41.51	42.75	44.89	48.48	51.39	52.93	53.99	55.07	56.17	57.30
	Total	70.59	74.43	78.30	82.58	88.05	92.94	96.56	98.49	100.46	102.47	104.52
	Increase		3.84	3.88	4.27	5.48	4.89	3.62	1.93	1.97	2.01	2.05
10,000	Water	\$ 38.24	\$ 43.88	\$ 47.39	\$ 50.23	\$ 52.74	\$ 55.38	\$ 58.15	\$ 59.31	\$ 60.50	\$ 61.71	\$ 62.94
	WW	62.05	63.91	65.83	69.12	74.65	79.13	81.50	83.13	84.80	86.49	88.22
	Total	100.29	107.79	113.22	119.35	127.39	134.51	139.65	142.45	145.30	148.20	151.17
	Increase		7.50	5.43	6.13	8.04	7.12	5.14	2.79	2.85	2.91	2.96
20,000	Water	\$ 63.21	\$ 76.71	\$ 82.85	\$ 87.82	\$ 92.21	\$ 96.82	\$ 101.66	\$ 103.69	\$ 105.77	\$ 107.88	\$ 110.04
	WW	105.55	108.72	111.98	117.58	126.98	134.60	138.64	141.41	144.24	147.13	150.07
	Total	168.13	185.43	194.83	205.40	219.19	231.42	240.30	245.11	250.01	255.01	260.11
	Increase		17.30	9.40	10.57	13.80	12.23	8.88	4.81	4.90	5.00	5.10
30,000	Water	\$ 99.64	\$ 125.96	\$ 136.04	\$ 144.20	\$ 151.41	\$ 158.98	\$ 166.93	\$ 170.27	\$ 173.67	\$ 177.14	\$ 180.69
	WW	149.05	153.52	158.13	166.03	179.32	190.08	195.78	199.69	203.69	207.76	211.92
	Total	250.93	279.48	294.16	310.23	330.72	349.05	362.70	369.96	377.36	384.91	392.60
	Increase		28.55	14.68	16.07	20.49	18.33	13.65	7.25	7.40	7.55	7.70

TOWN OF FLORENCE
WATER/WASTEWATER COST OF SERVICE MODEL

Prior 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027

Forecast Summary**Scenario: 2018 02 28 Scenario 3 -- Securing Future Water****3 Annual Revenues and Expenses****Revenues and Expenses**

Water Rate Revenues	\$ 2,862,373	\$ 3,118,690	\$ 3,369,767	\$ 3,587,638	\$ 3,789,503	\$ 4,002,516	\$ 4,204,501	\$ 4,313,521	\$ 4,425,153	\$ 4,539,352
Wastewater Revenues	4,285,214	4,433,029	4,589,691	4,860,020	5,249,799	5,556,480	5,733,470	5,868,322	6,006,274	6,147,398
Non-Rate Revenues	<u>376,627</u>	<u>376,627</u>	<u>376,627</u>	<u>376,627</u>	<u>376,627</u>	<u>376,627</u>	<u>376,627</u>	<u>376,627</u>	<u>376,627</u>	<u>376,627</u>
Total Revenues	7,524,215	7,928,346	8,336,085	8,824,285	9,415,929	9,935,623	10,314,599	10,558,470	10,808,055	11,063,376
Operating Expenses	<u>3,943,019</u>	<u>4,097,424</u>	<u>4,258,924</u>	<u>4,429,938</u>	<u>4,608,528</u>	<u>4,795,216</u>	<u>4,990,413</u>	<u>5,194,553</u>	<u>5,408,092</u>	<u>5,631,493</u>
Net Revenues Available for Transfers/Capital Outlays/Debt Sen	3,581,196	3,830,922	4,077,161	4,394,347	4,807,401	5,140,407	5,324,185	5,363,918	5,399,962	5,431,883
Transfers	955,336	983,996	1,013,516	1,043,921	1,075,239	1,107,496	1,140,721	1,174,943	1,210,191	1,246,497
Capital Outlays	<u>2,000,000</u>	<u>2,000,000</u>	<u>2,000,000</u>	<u>2,000,000</u>	<u>2,000,000</u>	<u>1,265,000</u>	<u>1,075,000</u>	<u>1,315,000</u>	<u>1,415,000</u>	<u>611,000</u>
Total Operating/Transfers/Capital Outlays	6,898,355	7,081,420	7,272,440	7,473,859	7,683,767	7,167,713	7,206,135	7,684,496	8,033,283	7,488,990
Net Revenues Available for Debt Service	1,581,196	1,830,922	2,077,161	2,394,347	2,807,401	3,875,407	4,249,185	4,048,918	3,984,962	4,820,883
Water Current Debt Service	-	-	-	-	-	-	-	-	-	-
Water Future Debt Service	-	-	-	-	-	-	-	-	-	-
Wastewater Current Debt Service	604,491	603,254	604,010	603,757	603,496	842,435	84,653	84,626	84,598	84,569
Wastewater Future Debt Service	<u>-</u>	<u>-</u>	<u>-</u>	<u>367,909</u>	<u>367,909</u>	<u>367,909</u>	<u>367,909</u>	<u>367,909</u>	<u>367,909</u>	<u>367,909</u>
Total Debt Service	604,491	603,254	604,010	971,666	971,405	1,210,344	452,562	452,535	452,507	452,478
Total Cost of Service	7,502,846	7,684,674	7,876,450	8,445,525	8,655,172	8,378,056	7,658,696	8,137,030	8,485,790	7,941,468
Net Revenues Available for Contingency	21,368	243,672	459,635	378,760	760,757	1,557,567	2,655,902	2,421,440	2,322,265	3,121,909
Percent of COS	0.3%	3.2%	5.8%	4.5%	8.8%	18.6%	34.7%	29.8%	27.4%	39.3%

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	Prior	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027

Forecast Summary

Scenario: 2018 02 28 Scenario 3 -- Securing Future Water

4 Revenue Adequacy Tests

Total Capital Fund Balance

Beginning Fund Balance	\$	8,710,498	\$	6,353,330	\$	1,934,372	\$	(917,310)	\$	2,074,154	\$	587,668	\$	(709,451)	\$	(1,320,875)	\$	(3,303,258)	\$	(4,149,238)
Plus Non-Rate Funding Sources		428,000		2,000,000		2,338,000		13,185,000		15,958,000		400,000		278,000		1,050,000		1,528,000		-
Plus Impact Fees		69,910		73,042		76,318		163,464		170,514		177,880		185,576		193,617		202,020		210,800
Plus Proceeds from the Issuance of Deb	\$ 5,000,000	-	-	-	5,000,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Available Funds		9,208,408		8,426,372		4,348,690		17,431,154		18,202,668		1,165,549		(245,875)		(77,258)		(1,573,238)		(3,938,439)
Less Capital Improvement Plan		2,855,078		6,492,000		5,266,000		15,357,000		17,615,000		1,875,000		1,075,000		3,226,000		2,576,000		611,000
Ending Capital Fund Balance		6,353,330		1,934,372		(917,310)		2,074,154		587,668		(709,451)		(1,320,875)		(3,303,258)		(4,149,238)		(4,549,439)

Total Operating Fund Balance

Beginning Fund Balance	\$	8,710,498	\$	8,731,866	\$	8,975,538	\$	9,435,173	\$	9,813,933	\$	10,574,690	\$	12,132,257	\$	14,788,159	\$	17,209,599	\$	19,531,864
Net Revenues Available for Contingency		21,368		243,672		459,635		378,760		760,757		1,557,567		2,655,902		2,421,440		2,322,265		3,121,909
Ending Operating Fund Balance		8,731,866		8,975,538		9,435,173		9,813,933		10,574,690		12,132,257		14,788,159		17,209,599		19,531,864		22,653,773
Days of Operating Expenditures		808		800		809		809		838		923		1,082		1,209		1,318		1,468

Debt Coverage

Debt Coverage -- Water and Wastewater Fund		5.92		6.35		6.75		4.52		4.95		4.25		11.76		11.85		11.93		12.00
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5 Total Accounts

Water Accounts

Total Accounts		3,590		3,601		3,612		3,641		3,670		3,699		3,728		3,757		3,786		3,815
New Accounts		-		11		11		29		29		29		29		29		29		29
Avg. Annual Growth Rate				0.31%		0.31%		0.80%		0.80%		0.79%		0.78%		0.78%		0.77%		0.77%

Wastewater Accounts

Total Accounts		2,930		2,940		2,950		2,978		3,006		3,034		3,062		3,090		3,118		3,146
New Accounts		-		10		10		28		28		28		28		28		28		28
Avg. Annual Growth Rate				0.34%		0.34%		0.95%		0.94%		0.93%		0.92%		0.91%		0.91%		0.90%

**TOWN OF FLORENCE
WATER/WASTEWATER COST OF SERVICE MODEL**

Prior 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027

Forecast Summary

Scenario: 2018 02 28 Scenario 3 -- Securing Future Water

6 Annual Volume

Water Volume

5/8" Inside	136,494,475	136,637,636	136,780,648	137,290,871	137,799,205	138,305,671	138,810,289	139,313,079	139,814,061	140,313,255
5/8" Outside	2,270,068	2,270,068	2,270,068	2,270,068	2,270,068	2,270,068	2,270,068	2,270,068	2,270,068	2,270,068
1" Inside	14,506,396	14,590,736	14,674,590	14,757,969	14,840,879	14,923,328	15,005,324	15,086,875	15,167,987	15,248,668
1" Outside	509,061	509,061	509,061	509,061	509,061	509,061	509,061	509,061	509,061	509,061
2" Inside	58,773,680	59,753,241	60,717,003	61,665,707	62,600,035	63,520,624	64,428,062	65,322,896	66,205,638	67,076,765
3" Compound	13,411,170	13,411,170	13,411,170	13,411,170	13,411,170	13,411,170	13,411,170	13,411,170	13,411,170	13,411,170
3" Turbine	5,380,435	5,380,435	5,380,435	5,380,435	5,380,435	5,380,435	5,380,435	5,380,435	5,380,435	5,380,435
4" Compound	717,900	717,900	717,900	717,900	717,900	717,900	717,900	717,900	717,900	717,900
4" Turbine	38,377,070	38,377,070	38,377,070	38,377,070	38,377,070	38,377,070	38,377,070	38,377,070	38,377,070	38,377,070
6" Turbine	5,129,361	5,129,361	5,129,361	5,129,361	5,129,361	5,129,361	5,129,361	5,129,361	5,129,361	5,129,361
8" Turbine	49,337,200	49,337,200	49,337,200	49,462,100	49,462,100	49,462,100	49,462,100	49,462,100	49,462,100	49,462,100
CCA	148,737,135	148,737,135	148,737,135	148,737,135	148,737,135	148,737,135	148,737,135	148,737,135	148,737,135	148,737,135
Total System	476,807,952	478,031,695	479,238,743	480,922,119	482,463,625	483,988,835	485,498,374	486,992,828	488,472,741	489,923,742

Wastewater Billing Units

Residential	103,421,396	103,692,843	103,964,290	104,933,744	105,903,199	106,872,653	107,842,108	108,811,562	109,781,016	110,750,471
Commercial	79,374,856	80,419,262	81,463,668	82,508,074	83,552,480	84,596,886	85,641,292	86,685,698	87,730,104	88,774,510
Non-Residential	655,181	655,181	655,181	655,181	655,181	655,181	655,181	655,181	655,181	655,181
Institutional	74,639,008	74,639,008	74,639,008	74,639,008	74,639,008	74,639,008	74,639,008	74,639,008	74,639,008	74,639,008
ADOC	183,352,340	183,352,340	183,352,340	183,352,340	183,352,340	183,352,340	183,352,340	183,352,340	183,352,340	183,352,340
CCA	148,737,135	148,737,135	148,737,135	148,737,135	148,737,135	148,737,135	148,737,135	148,737,135	148,737,135	148,737,135
Total System	590,179,916	591,495,769	592,811,622	594,825,483	596,839,343	598,853,204	600,867,064	602,880,924	604,894,785	606,908,645

<div style="border: 1px solid black; padding: 5px; display: inline-block; margin: 0 auto; width: 80%;"> TOWN OF FLORENCE WATER/WASTEWATER COST OF SERVICE MODEL </div>											
	Current	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027

WATER Summary

Scenario: 2018 02 28 Scenario 3 -- Securing Future Water

1 Water Rates -- Residential

Monthly Minimum Charge

5/8" - 3/4"	\$	22.34	\$	24.13	\$	26.06	\$	27.62	\$	29.00	\$	30.45	\$	31.97	\$	32.61	\$	33.27	\$	33.93	\$	34.61
1"		37.24		40.22		43.44		46.04		48.35		50.76		53.30		54.37		55.45		56.56		57.69
2"		148.95		160.87		173.74		184.16		193.37		203.04		213.19		217.45		221.80		226.24		230.76
3" Compound		238.34		257.41		278.00		294.68		309.41		324.88		341.13		347.95		354.91		362.01		369.25
3" Turbine		260.68		281.53		304.06		322.30		338.42		355.34		373.10		380.57		388.18		395.94		403.86
4" Compound		372.39		402.18		434.36		460.42		483.44		507.61		532.99		543.65		554.52		565.61		576.93

Volume Rate Per 1,000 Gal

- 5,000	\$	1.35	\$	1.46	\$	1.57	\$	1.67	\$	1.75	\$	1.84	\$	1.93	\$	1.97	\$	2.01	\$	2.05	\$	2.09
5,001 10,000		2.03		2.19		2.37		2.51		2.64		2.77		2.91		2.96		3.02		3.08		3.14
10,001 20,000		3.04		3.28		3.55		3.76		3.95		4.14		4.35		4.44		4.53		4.62		4.71
20,001 Above																						
	\$	33.14																				

2 Residential Monthly WATER Bill -- 3/4" Meter

5,000 Gal Total	\$	29.09	\$	31.42	\$	33.93	\$	35.97	\$	37.76	\$	39.65	\$	41.64	\$	42.47	\$	43.32	\$	44.18	\$	45.07
Total Increase				2.33		2.51		2.04		1.80		1.89		1.98		0.83		0.85		0.87		0.88
10,000 Gal Total	\$	35.84	\$	38.71	\$	41.80	\$	44.31	\$	46.53	\$	48.85	\$	51.30	\$	52.32	\$	53.37	\$	54.44	\$	55.53
Total Increase				2.87		3.10		2.51		2.22		2.33		2.44		1.03		1.05		1.07		1.09
30,000 Gal Total	\$	87.85	\$	94.88	\$	102.47	\$	108.62	\$	114.05	\$	119.75	\$	125.74	\$	128.26	\$	130.82	\$	133.44	\$	136.11
Total Increase				7.03		7.59		6.15		5.43		5.70		5.99		2.51		2.57		2.62		2.67
50,000 Gal Total	\$	148.65	\$	160.55	\$	173.39	\$	183.79	\$	192.98	\$	202.63	\$	212.76	\$	217.02	\$	221.36	\$	225.79	\$	230.30
Total Increase				11.89		12.84		10.40		9.19		9.65		10.13		4.26		4.34		4.43		4.52

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

WATER Summary

Scenario: 2018 02 28 Scenario 3 -- Securing Future Water

3 Annual Revenues and Expenses

Revenues and Expenses

Water Rate Revenues	\$ 2,862,373	\$ 3,118,690	\$ 3,369,767	\$ 3,587,638	\$ 3,789,503	\$ 4,002,516	\$ 4,204,501	\$ 4,313,521	\$ 4,425,153	\$ 4,539,352
Non-Rate Revenues	264,664	264,664	264,664	264,664	264,664	264,664	264,664	264,664	264,664	264,664
Total Revenues	3,127,037	3,383,354	3,634,431	3,852,302	4,054,167	4,267,180	4,469,165	4,578,185	4,689,817	4,804,016
Operating Expenses	1,901,265	1,972,425	2,046,557	2,124,724	2,206,097	2,290,968	2,379,510	2,471,900	2,568,327	2,668,970
Net Revenues Available for Transfers/Capital Outlays/Debt Sr	1,225,772	1,410,929	1,587,874	1,727,578	1,848,071	1,976,211	2,089,655	2,106,286	2,121,490	2,135,045
Transfers	461,770	475,623	489,892	504,589	519,726	535,318	551,378	567,919	584,956	602,505
Capital Outlays	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	660,000	1,000,000	1,000,000	276,000
Total Operating Expense/Capital Outlays	3,363,035	3,448,048	3,536,449	3,629,312	3,725,823	3,826,286	3,590,867	4,039,819	4,153,284	3,547,475
Net Revenues Available for Debt Service	225,772	410,929	587,874	727,578	848,071	976,211	1,429,655	1,106,286	1,121,490	1,859,045
<u>Water Debt Service</u>										
Current Debt Service	-	-	-	-	-	-	-	-	-	-
Future Debt Service	-	-	-	-	-	-	-	-	-	-
Total Water Debt Service	-	-	-	-	-	-	-	-	-	-
Total Cost of Service	3,363,035	3,448,048	3,536,449	3,629,312	3,725,823	3,826,286	3,590,867	4,039,819	4,153,284	3,547,475
Net Revenues Available for Contingency	(235,998)	(64,694)	97,982	222,990	328,344	440,893	878,278	538,367	536,534	1,256,540
Percent of COS	-7.0%	-1.9%	2.8%	6.1%	8.8%	11.5%	24.5%	13.3%	12.9%	35.4%

4 Revenue Adequacy Tests

Total Capital Fund Balance

Beginning Fund Balance	4,419,736	3,369,668	993,604	(825,914)	(2,050,500)	(3,240,215)	(4,342,816)	(4,612,047)	(6,354,640)	(6,863,312)
Plus Non-Rate Funding Sources	278,000	-	358,000	3,145,000	328,000	50,000	278,000	50,000	1,528,000	-
Plus Impact Fees	48,510	50,936	53,482	97,414	102,285	107,399	112,769	118,408	124,328	130,544
Plus Proceeds from the Issuance of Det \$	-	-	-	-	-	-	-	-	-	-
Total Available Funds	4,746,246	3,420,604	1,405,086	2,416,500	(1,620,215)	(3,082,816)	(3,952,047)	(4,443,640)	(4,702,312)	(6,732,767)
Less WATER Capital Improvement Plan	1,376,578	2,427,000	2,231,000	4,467,000	1,620,000	1,260,000	660,000	1,911,000	2,161,000	276,000
Ending Capital Fund Balance	3,369,668	993,604	(825,914)	(2,050,500)	(3,240,215)	(4,342,816)	(4,612,047)	(6,354,640)	(6,863,312)	(7,008,767)

Total Operating Fund Balance

Beginning Fund Balance	\$ 4,419,736	\$ 4,183,738	\$ 4,119,044	\$ 4,217,026	\$ 4,440,016	\$ 4,768,361	\$ 5,209,254	\$ 6,087,532	\$ 6,625,898	\$ 7,162,432
Net Revenues Available for Contingency	(235,998)	(64,694)	97,982	222,990	328,344	440,893	878,278	538,367	536,534	1,256,540
Ending Operating Fund Balance	4,183,738	4,119,044	4,217,026	4,440,016	4,768,361	5,209,254	6,087,532	6,625,898	7,162,432	8,418,972
Days of Operating Expenditures	803	762	752	763	789	830	934	978	1,018	1,151

Debt Coverage

Debt Coverage	-	-	-	-	-	-	-	-	-	-
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	Current	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027

WATER Summary

Scenario: 2018 02 28 Scenario 3 -- Securing Future Water

5 Total Accounts

Water Accounts

Total Accounts		3,590	3,601	3,612	3,641	3,670	3,699	3,728	3,757	3,786	3,815
New Accounts		-	11	11	29	29	29	29	29	29	29
Avg. Annual Growth Rate			0.31%	0.31%	0.80%	0.80%	0.79%	0.78%	0.78%	0.77%	0.77%

6 Annual Water Consumed Volume

Water Consumed Volume

5/8" Inside	136,494,475	136,637,636	136,780,648	137,290,871	137,799,205	138,305,671	138,810,289	139,313,079	139,814,061	140,313,255
5/8" Outside	2,270,068	2,270,068	2,270,068	2,270,068	2,270,068	2,270,068	2,270,068	2,270,068	2,270,068	2,270,068
1" Inside	14,506,396	14,590,736	14,674,590	14,757,969	14,840,879	14,923,328	15,005,324	15,086,875	15,167,987	15,248,668
1" Outside	509,061	509,061	509,061	509,061	509,061	509,061	509,061	509,061	509,061	509,061
2" Inside	58,773,680	59,753,241	60,717,003	61,665,707	62,600,035	63,520,624	64,428,062	65,322,896	66,205,638	67,076,765
3" Compound	13,411,170	13,411,170	13,411,170	13,411,170	13,411,170	13,411,170	13,411,170	13,411,170	13,411,170	13,411,170
3" Turbine	5,380,435	5,380,435	5,380,435	5,380,435	5,380,435	5,380,435	5,380,435	5,380,435	5,380,435	5,380,435
4" Compound	717,900	717,900	717,900	717,900	717,900	717,900	717,900	717,900	717,900	717,900
4" Turbine	38,377,070	38,377,070	38,377,070	38,377,070	38,377,070	38,377,070	38,377,070	38,377,070	38,377,070	38,377,070
6" Turbine	5,129,361	5,129,361	5,129,361	5,129,361	5,129,361	5,129,361	5,129,361	5,129,361	5,129,361	5,129,361
8" Turbine	49,337,200	49,337,200	49,337,200	49,462,100	49,462,100	49,462,100	49,462,100	49,462,100	49,462,100	49,462,100
CCA	148,737,135	148,737,135	148,737,135	148,737,135	148,737,135	148,737,135	148,737,135	148,737,135	148,737,135	148,737,135
Total System	476,807,952	478,031,695	479,238,743	480,922,119	482,463,625	483,988,835	485,498,374	486,992,828	488,472,741	489,923,742

<div style="border: 1px solid black; padding: 5px; display: inline-block; background-color: white; color: black;"> TOWN OF FLORENCE WATER/WASTEWATER COST OF SERVICE MODEL </div>											
	Current	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027

Forecast Summary

Scenario: 2018 02 28 Scenario 3 -- Securing Future Water

1 Wastewater Rates

Residential Monthly Rates																						
Monthly Charge	\$	18.55	\$	19.11	\$	19.68	\$	20.66	\$	22.32	\$	23.66	\$	24.37	\$	24.85	\$	25.35	\$	25.86	\$	26.37
Volume Rate Per 1,000 Gal		4.35		4.48		4.61		4.85		5.23		5.55		5.71		5.83		5.94		6.06		6.18
 Non-Residential																						
Monthly Monthly Charge	\$	18.55	\$	19.11	\$	19.68	\$	20.66	\$	22.32	\$	23.66	\$	24.37	\$	24.85	\$	25.35	\$	25.86	\$	26.37
Volume Rate Per 1,000 Gal		4.37		4.50		4.64		4.87		5.26		5.57		5.74		5.85		5.97		6.09		6.21

2 Monthly Charges

51.175																						
Residential Water Usage																						
5,000 Gal	Total	\$ 40.30	\$	41.51	\$	42.75	\$	44.89	\$	48.48	\$	51.39	\$	52.93	\$	53.99	\$	55.07	\$	56.17	\$	57.30
	Total Increase			1.21		1.25		2.14		3.59		2.91		1.54		1.06		1.08		1.10		1.12
	Avg. Annual Increase			3.58%																		
10,000 Gal	Total	62.05		63.91		65.83		69.12		74.65		79.13		81.50		83.13		84.80		86.49		88.22
	Total Increase			1.86		1.92		3.29		5.53		4.48		2.37		1.63		1.66		1.70		1.73
	Avg. Annual Increase			3.58%																		
Commercial																						
20,000 Gal	Total	105.95		109.13		112.40		118.02		127.46		135.11		139.17		141.95		144.79		147.68		150.64
	Total Increase			3.18		3.27		5.62		9.44		7.65		4.05		2.78		2.84		2.90		2.95
	Avg. Annual Increase			3.65%																		
50,000 Gal	Total	237.05		244.16		251.49		264.06		285.19		302.30		311.37		317.59		323.94		330.42		337.03
	Total Increase			7.11		7.32		12.57		21.12		17.11		9.07		6.23		6.35		6.48		6.61
	Avg. Annual Increase			3.65%																		

**TOWN OF FLORENCE
WATER/WASTEWATER COST OF SERVICE MODEL**

Current 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027

Forecast Summary

Scenario: 2018 02 28 Scenario 3 -- Securing Future Water

3 Annual Revenues and Expenses

Wastewater Revenues	\$ 4,285,214	\$ 4,433,029	\$ 4,589,691	\$ 4,860,020	\$ 5,249,799	\$ 5,556,480	\$ 5,733,470	\$ 5,868,322	\$ 6,006,274	\$ 6,147,398
Non-Rate Revenues	111,963	111,963	111,963	111,963	111,963	111,963	111,963	111,963	111,963	111,963
Total Revenues	4,397,177	4,544,992	4,701,654	4,971,983	5,361,762	5,668,443	5,845,433	5,980,285	6,118,237	6,259,361
Operating Expenses	2,041,754	2,124,998	2,212,367	2,305,214	2,402,431	2,504,248	2,610,904	2,722,653	2,839,765	2,962,523
Net Revenues Available for Transfers/Capital Outlays/Debt Sr	2,355,423	2,419,993	2,489,287	2,666,769	2,959,330	3,164,196	3,234,530	3,257,632	3,278,473	3,296,838
Transfers	493,566	508,373	523,624	539,333	555,513	572,178	589,344	607,024	625,235	643,992
Capital Outlays	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	265,000	415,000	315,000	415,000	335,000
Total Operating Expense/Capital Outlays	3,535,320	3,633,371	3,735,991	3,844,547	3,957,944	3,341,426	3,615,247	3,644,677	3,880,000	3,941,515
Net Revenues Available for Debt Service	1,355,423	1,419,993	1,489,287	1,666,769	1,959,330	2,899,196	2,819,530	2,942,632	2,863,473	2,961,838
<u>Wastewater Debt Service</u>										
Current Debt Service	604,491	603,254	604,010	603,757	603,496	842,435	84,653	84,626	84,598	84,569
Future Debt Service	-	-	-	367,909	367,909	367,909	367,909	367,909	367,909	367,909
Total Wastewater Debt Service	604,491	603,254	604,010	971,666	971,405	1,210,344	452,562	452,535	452,507	452,478
Total Cost of Service	4,139,811	4,236,626	4,340,001	4,816,212	4,929,349	4,551,770	4,067,809	4,097,212	4,332,506	4,393,992
Net Revenues Available for Contingency	257,366	308,366	361,653	155,770	432,412	1,116,674	1,777,624	1,883,073	1,785,731	1,865,368
Percent of COS	6.2%	7.3%	8.3%	3.2%	8.8%	24.5%	43.7%	46.0%	41.2%	42.5%

4 Revenue Adequacy Tests

<u>Total Capital Fund Balance</u>										
Beginning Fund Balance	\$ 4,290,762	\$ 2,983,662	\$ 940,768	\$ (91,396)	\$ 4,124,654	\$ 3,827,884	\$ 3,633,365	\$ 3,291,172	\$ 3,051,382	\$ 2,714,073
Plus Non-Rate Funding Sources	150,000	2,000,000	1,980,000	10,040,000	15,630,000	350,000	-	1,000,000	-	-
Plus Impact Fees	21,400	22,106	22,836	66,050	68,230	70,481	72,807	75,210	77,692	80,255
Plus Proceeds from the Issuance of Det \$ 5,000,000	-	-	-	5,000,000	-	-	-	-	-	-
Total Available Funds	4,462,162	5,005,768	2,943,604	15,014,654	19,822,884	4,248,365	3,706,172	4,366,382	3,129,073	2,794,329
Less WASTEWATER Capital Improvement Plan	1,478,500	4,065,000	3,035,000	10,890,000	15,995,000	615,000	415,000	1,315,000	415,000	335,000
Ending Capital Fund Balance	2,983,662	940,768	(91,396)	4,124,654	3,827,884	3,633,365	3,291,172	3,051,382	2,714,073	2,459,329
<u>Total Operating Fund Balance</u>										
Beginning Fund Balance	\$ 4,290,762	\$ 4,548,128	\$ 4,856,494	\$ 5,218,147	\$ 5,373,917	\$ 5,806,329	\$ 6,923,003	\$ 8,700,628	\$ 10,583,701	\$ 12,369,432
Net Revenues Available for Contingency	257,366	308,366	361,653	155,770	432,412	1,116,674	1,777,624	1,883,073	1,785,731	1,865,368
Ending Operating Fund Balance	4,548,128	4,856,494	5,218,147	5,373,917	5,806,329	6,923,003	8,700,628	10,583,701	12,369,432	14,234,800
Days of Operating Expenditures	813	834	861	851	882	1,009	1,216	1,419	1,590	1,754
<u>Debt Coverage</u>										
Debt Coverage	3.90	4.01	4.12	2.74	3.05	2.61	7.15	7.20	7.25	7.29

<div style="border: 1px solid white; padding: 5px; display: inline-block; background-color: white; color: black;"> TOWN OF FLORENCE WATER/WASTEWATER COST OF SERVICE MODEL </div>											
	Current	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027

Forecast Summary

Scenario: 2018 02 28 Scenario 3 -- Securing Future Water

5 Total Accounts

Wastewater Accounts

Total Accounts	2,930	2,940	2,950	2,978	3,006	3,034	3,062	3,090	3,118	3,146
New Accounts	-	10	10	28	28	28	28	28	28	28
Avg. Annual Growth Rate		0.34%	0.34%	0.95%	0.94%	0.93%	0.92%	0.91%	0.91%	0.90%

6 Annual Volume

Wastewater Billing Units

Residential	103,421,396	103,692,843	103,964,290	104,933,744	105,903,199	106,872,653	107,842,108	108,811,562	109,781,016	110,750,471
Commercial	79,374,856	80,419,262	81,463,668	82,508,074	83,552,480	84,596,886	85,641,292	86,685,698	87,730,104	88,774,510
Non-Residential	655,181	655,181	655,181	655,181	655,181	655,181	655,181	655,181	655,181	655,181
Institutional	74,639,008	74,639,008	74,639,008	74,639,008	74,639,008	74,639,008	74,639,008	74,639,008	74,639,008	74,639,008
ADOC	183,352,340	183,352,340	183,352,340	183,352,340	183,352,340	183,352,340	183,352,340	183,352,340	183,352,340	183,352,340
CCA	148,737,135	148,737,135	148,737,135	148,737,135	148,737,135	148,737,135	148,737,135	148,737,135	148,737,135	148,737,135
Total System	590,179,916	591,495,769	592,811,622	594,825,483	596,839,343	598,853,204	600,867,064	602,880,924	604,894,785	606,908,645

Town of Florence

Budgeted FY 2017-18 Allocations of Central Services to Utilities; Current and Proposed Methodology
General Government Intra-Town Charge
Fiscal Year 2017-2018

DEPARTMENT	EXPENSE FY17-18	PERCENT **	FY '18 BUDGETED ALLOCATION	CURRENT BASIS	PROPOSED BASIS	REVISED ALLOC.
TOWN COUNCIL	\$ 96,203	25%	\$ 24,051	Estimated % of Time	Public Hearing & Agenda Items	\$ 24,538
ADMINISTRATION	635,382	45%	285,922	Estimated % of Time	Public Hearing & Agenda Items	254,231
LEGAL	473,844	40%	189,538	Estimated % of Time	Public Hearing & Agenda Items	124,026
FINANCE	676,243	40%	270,497	Line item Allocations + Est. % of Time	Line items + New Time % Est	202,091
HUMAN RESOURCES	246,472	40%	98,589	Estimated % of Time	FTE's by Department	49,737
COMMUNITY DEVELOPMENT	597,380	25%	149,345	Estimated % of Time	Not Allocated	0
INFORMATION TECHNOLOGY	391,974	40%	156,790	Estimated % of Time	IT Devices/Licenses/Labor Task %'s	110,319
ENGINEERING operating	33,014	97%	32,024	Direct Eng. Salaries; Overhead Alloc	Direct Eng. Salaries; Overhead Alloc	23,192
TOTAL	\$ 3,150,512		\$ 1,206,754			\$ 788,134

**Percentage of time dedication

Costs already allocated directly

Finance audit	63%	Shared by GF & Utilities	Shared by GF & Utilities; Minor Adj.	\$ 19,340
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Finance Dept. Line Item Allocations

Water/Sewer- 50/50

	CURRENT BASIS			PROPOSED BASIS	
Postage Utilities	\$ 28,000	75%	\$ 21,000	Estimated Utility Portion of Expense	Estimated Utility Portion of Expense
Data Processing Utility Bills	12,600	100%	12,600	Solely Utility Related Expense	Solely Utility Related Expense
Bank Charges	48,000	60%	28,800	Estimated Utility Portion of Expense	Estimated Utility Portion of Expense
Office Supplies Utilities	3,500	15%	525	Estimated Utility Portion of Expense	Estimated Utility Portion of Expense
Water/Sewer Total			62,925		
Total Finance Allocation	\$ 92,100		\$ 62,925		\$ 62,925

USER FUND	Total Oper.Budget	% of total	Current Annual Alloc.	Finance Allocation	Total Current Annual Alloc.	Plus Annual Audit Expense	Proposed Annual Allocations	Difference
HIGHWAY USERS	\$ 1,157,603	22%	\$ 261,997	\$ -	\$ 261,997	\$ 6,800	\$ 284,281	\$ 15,484
WATER	1,901,266	36%	430,308	31,463	461,770	7,800	234,868	(234,702)
WASTEWATER	2,041,754	38%	462,104	31,463	493,566	4,400	274,696	(223,270)
SANITATION	231,287	4%	52,346	-	52,346	340	34,518	(18,169)
CFID's							42,036	42,036
TOTAL	\$ 5,331,910	100%	\$ 1,206,754	\$ 62,925	\$ 1,269,679	\$ 19,340	\$ 870,399	\$ (418,620)

**TOWN OF FLORENCE
UTILITIES COST ALLOCATION STUDY**

GENERAL FUND DEPARTMENT
DIVISION
ACTIVITY

1

Administration

Mayor & Council

FY 2018 BUDGET

Personnel	Contractual Service/ Mtnce	Commodities	Other Charges	Capital / Debt Service	Unallocable Cap. & Contingencies	Total
\$ 40,896	\$ 7,836	\$ 1,500	\$ 45,516	\$ -	\$ (2,000)	\$ 93,748

BASIS FOR ALLOCATION

This program supports the activities of the Town Council. The Council is composed of a Mayor (direct election for a 4 year term) and six Council members elected at large for 4 year terms. The Council has responsibility for establishing Town Policy, and has oversight for all financial decisions that affect the Town of Florence. Town Council expenses are allocated based on the number of Council agenda items and public hearings.

SUMMARY COST ALLOCATION

	TOTAL	PERCENT	ALLOCATION
Total Agenda Items & Public Hearings -- FY 2017	298	100.0%	
Water	14	4.70%	\$ 4,404
WWS	12	4.03%	3,775
Sanitation	-	0.00%	-
Sub-Total Utilities	26	8.72%	8,179
EF - Streets (HURF)	40	13.42%	12,584
Merrill Ranch CFID #1	6	2.01%	1,888
Merrill Ranch CFID #2	6	2.01%	1,888
Total All Enterprises	78	26.17%	\$ 24,538
Total Agenda Items & Public Hearings -- FY 2017	298	100.00%	\$ 24,538

	Total Activity	Calculated Utilities Allocation
Activity Allocation	\$ 93,748	\$ 24,538

**TOWN OF FLORENCE
UTILITIES COST ALLOCATION STUDY**

GENERAL FUND DEPARTMENT 502 *Administration*
DIVISION 00
ACTIVITY 2 *Town Manager's Office*

FY 2018 BUDGET

	<u>Personnel</u>	<u>Contractual Service/ Mtnce</u>	<u>Commodities</u>	<u>Other Charges</u>	<u>Capital / Debt Service</u>	<u>Unallocable Cap. & Contingencies</u>	<u>Total</u>
\$	574,557	\$ 26,886	\$ 6,700	\$ 29,338	\$ -	\$ (250)	\$ 637,231

BASIS FOR ALLOCATION

One of the primary responsibilities of the Town Manager's office is the preparation of the Town's Annual budget for consideration by the Council. The Town Manager and his office staff and budget are allocated based 50% on each Utility's Budget and 50% on the Council Agenda items.

SUMMARY COST ALLOCATION

	<u>TOTAL</u>	<u>PERCENT</u>	<u>ALLOCATION</u>
Allocable Budgets 50%:			
Water	\$ 1,901,266	9.1%	\$ 28,918
WWS	2,041,754	9.7%	31,055
Sanitation	835,287	4.0%	12,705
Sub-Total Utilities	\$ 4,778,307	22.8%	\$ 72,679
EF - Streets (HURF)	1,517,603	7.2%	23,083
Merrill Ranch CFID #1	\$ 54,361	0.3%	827
Merrill Ranch CFID #2	52,561	0.3%	799
Total Allocable Budget for Town (Omits Debt Service and Capital)	\$ 20,947,616	30.6%	\$ 97,388
	<u>TOTAL</u>	<u>PERCENT</u>	
Contractual Service Purchases Orders/Bids:			
Water	\$ 372	11.5%	\$ 36,672
WWS	618	19.1%	60,923
Sanitation	36	1.1%	3,549
Sub-Total Utilities	\$ 1,026	31.7%	\$ 101,145
EF - Streets (HURF)	\$ 565	17.5%	55,699
Merrill Ranch CFID #1	\$ -	0.0%	-
Merrill Ranch CFID #2	\$ -	0.0%	-
Total Personnel, Contractual Service/Maintenance Budgets; All Depts. (Purchases of Contractual Service/Maintenance)	\$ 3,232	49.2%	\$ 156,843

Town Manager's Office		<u>Total Allocable Cost</u>	<u>Calculated Utilities Allocation</u>
Activity Allocation	All Utilities	\$ 637,231	\$ 254,231
	Water		\$ 65,591
	WWS		91,979
	Sanitation		16,254
	Sub-Total Utilities		173,823
	EF - Streets (HURF)		78,781
	Merrill Ranch CFID #1		827
	Merrill Ranch CFID #2		799
	Total		254,231

**TOWN OF FLORENCE
UTILITIES COST ALLOCATION STUDY**

GENERAL FUND DEPARTMENT	532	<i>General Government</i>
DIVISION	00	
ACTIVITY	3	<i>Non- Dept.</i>

FY 2018 BUDGET

<u>Personnel</u>	<u>Contractual Service/ Mtncs</u>	<u>Commodities</u>	<u>Other Charges</u>	<u>Capital / Debt Serv</u>	<u>Unallocable Cap. & Contingencies</u>	<u>Total</u>
\$ -	\$ 583,419	\$ 2,500	\$ 553,663	\$ -	\$ -	\$ 1,139,582

BASIS FOR ALLOCATION

These expenses are not considered allocable to the Utilities. The financial Audit expense is already being allocated separately between the General Fund and the Utilities.

SUMMARY COST ALLOCATION

Non- Dept.	<u>Total Activity</u>	<u>Calculated Utilities Allocation</u>
	\$	-
		-
		-
		-
Activity Allocation	\$	-

**TOWN OF FLORENCE
UTILITIES COST ALLOCATION STUDY**

GENERAL FUND DEPARTMENT	504	<i>Legal</i>
DIVISION	00	
ACTIVITY	4	<i>Legal</i>

FY 2018 BUDGET

<u>Personnel</u>	<u>Contractual Service/ Mtnce</u>	<u>Commodities</u>	<u>Other Charges</u>	<u>Capital / Debt Service</u>	<u>Unallocable Cap. & Contingencies</u>	<u>Total</u>
\$ 219,344	\$ 250,500	\$ 500	\$ 3,500	\$ -	\$ -	\$ 473,844
No Allocations					0.0%	-

BASIS FOR ALLOCATION

The Legal department advises the Mayor, Council, Town Manager, Boards and Commissions and Department managers relative to legal matters affecting the Town. Legal expenses are allocated based on the number of Council agenda items and public hearings.

SUMMARY COST ALLOCATION

	<u>TOTAL</u>	<u>PERCENT</u>	<u>\$ Allocation</u>
Total Agenda Items & Public Hearings -- FY 2017	298	100.0%	
Water	14	4.70%	\$ 22,261
WWS	12	4.03%	19,081
Sanitation	-	0.00%	-
Sub-Total Utilities	26	8.72%	41,342
EF - Streets (HURF)	40	13.42%	63,603
	0	0.00%	-
Merrill Ranch CFID #1	6	2.01%	9,540
Merrill Ranch CFID #2	6	2.01%	9,540
Total All Enterprises	78	26.17%	\$ 124,026

Town Clerk	<u>Total Activity</u>	<u>Calculated Utilities Allocation</u>
Total Activity Allocation to Utilities	\$ 473,844	\$ 124,026

**TOWN OF FLORENCE
UTILITIES COST ALLOCATION STUDY**

**GENERAL FUND DEPARTMENT
DIVISION
ACTIVITY**

**508
00
1**

Human Resources

Human Resources

FY 2018 BUDGET

<u>Personnel</u>	<u>Contractual Service/ Mtnce</u>	<u>Commodities</u>	<u>Other Charges</u>	<u>Capital / Debt Service</u>	<u>Unallocable Cap. & Contingencies</u>	<u>Total</u>
\$ 215,072	\$ 19,100	\$ 9,900	\$ 2,400	\$ -	\$ -	\$ 246,472

BASIS FOR ALLOCATION

The Human Resource costs are allocated based on the percentage of Utility personnel (FTE's) multiplied by total allocable Human Resources operating costs.

SUMMARY COST ALLOCATION

Town Budget Departments:	<u>TOTAL PERSONNEL</u>	<u>PERCENT</u>	<u>ALLOCATION</u>
FTE's:			
Water	9	5.0%	\$ 12,434
WWS	11	6.2%	15,197
Sanitation	2	1.1%	2,763
Sub-Total Utilities	22	12.3%	30,395
EF - Streets (HURF)	13	7.3%	17,960
Merrill Ranch CFID #1	0.50	0.3%	691
Merrill Ranch CFID #2	0.50	0.3%	691
Total Full Time Equivalent Personnel; All Depts. And Allocation	178	20.2%	49,737

	<u>Total Activity</u>	<u>Total Calculated Utilities Allocation</u>
Human Resources		
Activity Allocation	\$ 246,472	\$ 49,737

**TOWN OF FLORENCE
UTILITIES COST ALLOCATION STUDY**

**GENERAL FUND DEPARTMENT
DIVISION
ACTIVITY**

**G
00
519**

**Information Technology

IT**

FY 2018 BUDGET

	<u>Personnel</u>	<u>Contractual Service/ Mtnce</u>	<u>Commodities</u>	<u>Other Charges</u>	<u>Capital / Debt Service</u>	<u>Unallocable Cap. & Contingencies</u>	<u>Total</u>
	\$ 272,924	\$ 55,400	\$ 58,550	\$ 5,100	\$ -	\$ -	\$ 391,974
Less GIS	\$ 60,870	to be allocated separately					
	\$ 212,054	\$ 55,400	\$ 58,550	\$ 5,100	\$ -	\$ -	\$ 331,104

BASIS FOR ALLOCATION

IT costs are allocated on the number of devices and the number of licenses or access supported by department; however, 75% of GIS personnel labor is devoted to Streets. Therefore, 18.5% of IT personnel time cost is removed from Total IT personnel total and allocated directly to the Water, Wastewater and Street Utilities.

SUMMARY COST ALLOCATION

Total Devices and Software Licenses	TOTAL	PERCENT	\$ Allocation	Plus GIS Alloc.
Water	38	3.90%	\$ 15,277	\$ 20,290
WWS	48	4.92%	19,297	20,290
Sanitation	0	0.0%	-	-
Sub-Total Utilities	86	8.8%	34,574	40,580
EF - Streets (HURF)	37	3.8%	14,875	20,290
Merrill Ranch CFID #1	-	-	-	-
Merrill Ranch CFID #2	-	-	-	-
Total Number of Devices and Software Licenses for Town	123	12.6%	49,449	60,870

IT	Total Allocable Cost	Calculated Utilities Allocation
Water		\$ 35,567
WWS		39,587
Sanitation		-
Sub-Total Utilities		75,154
EF - Streets (HURF)		35,165
Merrill Ranch CFID #1		-
Merrill Ranch CFID #2		-
Total Activity Allocation to Utilities	\$ 391,974	\$ 110,319

**TOWN OF FLORENCE
UTILITIES COST ALLOCATION STUDY**

GENERAL FUND DEPARTMENT	505	Finance
DIVISION	00	
ACTIVITY	1	Non-Personnel Costs

FY 2018 BUDGET

<u>Personnel</u>	<u>Contractual Service/ Mtnc</u>	<u>Commodities</u>	<u>Other Charges</u>	<u>Capital / Debt Service</u>	<u>Unallocable Cap. & Contingencies</u>	<u>Total</u>
\$ 531,381						
Personnel Costs to be allocated by function and relative budgets (See next page)						
Remaining Non-Personnel Costs:	\$ 111,150	\$ 4,600	\$ 29,150	\$ -	\$ -	\$ 144,900
Less Directly Allocated Line Items Detailed in this section:						(92,100)
Less Audit Costs Directly Allocated between GF and Utilities:						(33,000)
Remaining Non-Personnel costs to be allocated on basis of relative budgets						\$ 19,800

BASIS FOR ALLOCATION

The Finance Department is responsible for recording all transactions related to the collection and disbursement of Town Funds, responsible for fixed assets, accounting, accounts payable, accounts receivable, cash receipts, general accounting functions, special assessment billing/collection, monthly reporting, internal control processes, annual audit, budget preparation, utility billing and collection.

Specific line items in the Finance Budget that are tied to Utility Billing are directly allocated to the Water and Wastewater Departments. 40% of the professional audit expense is also allocated directly to the water and wastewater utilities. Personnel costs of the Finance Department are allocated separately in the next section. The remaining Non-Personnel costs have been allocated on the basis of operating budgets.

SUMMARY COST ALLOCATION

Directly Allocated Costs are subtracted from Charges and listed individually:

<u>Directly Allocated Costs</u>	<u>% of Total</u>	<u>Water/Sewer Total</u>	<u>Water Portion</u>	<u>Streets</u>	<u>Wastewater Portion</u>	<u>Sanitation Portion</u>
Postage Utilities	75%	\$ 21,000	\$ 10,500		\$ 10,500	\$ -
Data Processing Utility	100%	12,600	6,300		6,300	-
Bank Charges	60%	28,800	14,400		14,400	-
Office Supplies Utilities	15%	525	263		263	-
Water/Sewer Total (50/50 Split)		\$ 62,925	\$ 31,463		\$ 31,463	\$ -

Audit Cost of \$33,000 is allocated to GF & W/WW Utilities \$ 6,100 **6,800** \$ 6,100 \$ 340
100% of Line items directly allocated were subtracted from Finance Budget to arrive at remaining allocable amounts

<u>Remaining Costs to be Allocated:</u>	<u>\$</u>	<u>Total</u>	<u>PERCENT</u>	<u>Allocations NOT Directly Allocated</u>
Total Operating Budgets by Departments:				
Water		1,901,266	9.1%	\$ 1,797
Wastewater		2,041,754	9.7%	1,930
Sanitation		835,287	4.0%	790
Streets		1,517,603	7.2%	1,434
Merrill Ranch CFID #1		54,361	0.3%	51
Merrill Ranch CFID #2		52,561	0.3%	50
Sub-Total Utilities		6,402,832	30.6%	\$ 6,052
Total Operating Budgets All Depts.		20,947,616	100.0%	

<u>Finance Non-Personnel Costs</u>	<u>Calculated</u>
This section includes both Directly and Indirectly Allocated Costs	
	<u>Total Activity</u>
Water	\$ 39,360
Wastewater	39,492
Sanitation	1,130
Streets	8,234
Merrill Ranch CFID #1	51
Merrill Ranch CFID #2	50
Total Activity Allocation to Utilities - Non-Personnel Finance Costs	\$ 88,317

**TOWN OF FLORENCE
UTILITIES COST ALLOCATION STUDY**

DEPARTMENT	505	Finance
DIVISION	00	
ACTIVITY	2	Personnel

FY 2018 BUDGET

Personnel Costs Allocated by Function then by applicable basis:

Functional Area	Personnel Costs by		Allocate to	Total
	Functional Area	Utilities/Enterprise By	Basis:	
<i>Purchasing Personnel Costs Only - All other costs are allocated in Activity 1</i>				
Admin	\$ 51,057	# FTEs	\$	51,057
Accting	96,272	Budget \$		96,272
Budget	66,162	Budget \$		66,162
Payroll	55,022	# FTEs		55,022
Audit	106,422	Budget \$		106,422
CFD	14,104	CFDs		14,104
Contract Admin.	33,026	\$ PO/Bids		33,026
PO/Bids %	107,515	# PO/Bids		107,515
			\$	529,581

BASIS FOR ALLOCATION

The Finance Department is responsible for recording all transactions related to the collection and disbursement of Town Funds, responsible for fixed assets, accounting, accounts payable, accounts receivable, cash receipts, general accounting functions, special assessment billing/collection, monthly reporting, internal control processes, annual audit, budget preparation, utility billing and collection. However, it should be noted that beginning with the FY 2018 budget, 90% of the salary cost for the Finance employee whose time is primarily (90%) devoted to Utility billing was included in the Water and Wastewater budgets (equal split) and only 10% of the salary cost remains in the Finance budget. Therefore, there is no additional Finance allocation for Utility Billing to the utilities in this analysis.

SUMMARY COST ALLOCATION

	Water	WW	Sanitation	Streets	CFD #1	CFD #2
Percentages						
Admin	5.04%	6.17%	1.12%	7.29%	0.28%	0.28%
Accting	9.08%	9.75%	3.99%	7.24%	0.26%	0.25%
Budget	9.08%	9.75%	3.99%	7.24%	0.26%	0.25%
Payroll	5.04%	6.17%	1.12%	7.29%	0.28%	0.28%
Audit	9.08%	9.75%	3.99%	7.24%	0.26%	0.25%
CFD	0.00%	0.00%	0.00%	0.00%	58.06%	41.94%
Contract Admin.	27.61%	25.06%	0.58%	0.00%	23.73%	0.00%
PO/Bids %	11.51%	19.12%	1.11%	0.00%	17.48%	0.00%
Allocations \$						
Admin	\$ 2,576	\$ 3,148	\$ 572	\$ 3,721	\$ 143	\$ 143
Accting	\$ 8,738	\$ 9,384	\$ 3,839	\$ 6,975	\$ 250	\$ 242
Budget	\$ 6,005	\$ 6,449	\$ 2,638	\$ 4,793	\$ 172	\$ 166
Payroll	\$ 2,776	\$ 3,393	\$ 617	\$ 4,009	\$ 154	\$ 154
Audit	\$ 9,659	\$ 10,373	\$ 4,244	\$ 7,710	\$ 276	\$ 267
CFD	\$ -	\$ -	\$ -	\$ -	\$ 8,190	\$ 5,915
Contract Admin.	\$ 9,120	\$ 8,277	\$ 191	\$ 7,836	\$ -	\$ -
PO/Bids %	\$ 12,375	\$ 20,558	\$ 1,198	\$ 18,795	\$ -	\$ -
Totals:	\$ 51,248	\$ 61,581	\$ 13,298	\$ 53,839	\$ 9,185	\$ 6,887

**TOWN OF FLORENCE
UTILITIES COST ALLOCATION STUDY**

Continued from Previous Page

Finance Personnel	Total Activity	Calculated Utilities Allocation
Water		\$ 51,248
Wastewater		61,581
Sanitation		13,298
Streets		53,839
Merrill Ranch CFID #1		9,185
Merrill Ranch CFID #2		6,887
Total Activity Allocation to Utilities - Finance Personnel Costs	\$ 529,581	\$ 196,039

**TOWN OF FLORENCE
UTILITIES COST ALLOCATION STUDY**

GENERAL FUND DEPT	510	<i>Community Development</i>
DIVISION	00	
ACTIVITY	3	<i>Community Development</i>

FY 2018 BUDGET

<u>Personnel</u>	<u>Contractual Service/ Mtnc</u>	<u>Commodities</u>	<u>Other Charges</u>	<u>Capital / Debt Service</u>	<u>Unallocable Cap. & Contingencies</u>	<u>Total</u>
\$ 450,280	\$ 67,200	\$ 63,400	\$ 14,700	\$ -	\$ -	\$ 595,580

BASIS FOR ALLOCATION

The Community Development department is responsible for current and long range planning and zoning functions for the Town. Building inspection, plan review and code compliance activities are also supervised by this department. In the past, GIS (Geographic Information Science) operating costs including the position of GIS coordinator were included in this department. However, this function and related costs were moved into the IT department beginning with the FY 2018 budget where they are allocated out to operating departments. The remaining functions in the Community Development department include Planning, Permitting, and Building Safety. These do not need to be allocated to the Utilities or the districts.

SUMMARY COST ALLOCATION

TOTAL PERCENT \$ Allocation

<u>Community Development</u>	<u>Total Activity</u>	<u>Calculated Utilities Allocation</u>
0		\$ -
0		-
0		-
0		-
Total Activity Allocation to Utilities	\$ 595,580	\$ -

**TOWN OF FLORENCE
UTILITIES COST ALLOCATION STUDY**

GENERAL FUND DEPARTMENT	530	<i>Engineering</i>
DIVISION	00	<i>and Development Services</i>
ACTIVITY	1	<i>Engineering</i>

FY 2018 BUDGET

	<u>Personnel</u>	<u>Contractual Service/ Mtnc</u>	<u>Commodities</u>	<u>Other Charges</u>	<u>Capital / Debt Service</u>	<u>Unallocable Cap. & Contingencies</u>	<u>Total</u>
\$	107,116	\$ 25,664	\$ 4,950	\$ 2,400	\$ -	\$ -	\$ 140,130
Less Personnel							
\$	-	\$ 25,664	\$ 4,950	\$ 2,400	\$ -	\$ -	\$ 33,014

BASIS FOR ALLOCATION

Development Services Director:

Beginning with the FY 2018 budget, the Town restructured the Public Works and Engineering areas. The Public Works Director title/position was replaced with that of the Development Services Director. Funding for this position is budgeted directly within the FY 2018 departmental budgets, including Water, Wastewater, Sanitation, Streets, Planning, and Building Safety. Therefore, it is not necessary to allocate personnel costs for the Development Svcs Director within this allocation model. These salary splits are shown in the detail on this page.

Engineering Department

The Town's engineering group currently has several vacancies. In a similar fashion to the direct budget allocations of the Development Services Directors salary costs, The majority of the current Engineering salaries are distributed out to other departments already in salary split methodology utilized by the Town. These allocations were developed after considerable internal discussion by Town staff and were utilized both in the FY 2017-2018 budget and within this analysis. These splits are also reflected on this page. All that remain to be allocated out are non-personnel operating costs in the Engineering budget. These are allocated on the basis of the same percentages as the distribution of engineering personnel costs.

SUMMARY COST ALLOCATION

Direct Personnel Costs	Engineering	Water Svcs	WW Svcs	Sanitation	Streets
Time Spent/ Costs Allocated Through Budgets:					
Development Svcs Dir.	9.0%	26.0%	26.0%	13.0%	26.0%
Engineering Tech	40.0%	0.0%	0.0%	0.0%	60.0%
Associate Engineer	20.0%	10.0%	10.0%	0.0%	60.0%
Sr. Civil Engineer	<u>50.0%</u>	<u>12.5%</u>	<u>12.5%</u>	<u>0.0%</u>	<u>25.0%</u>
Totals	400.0%	119.0%	48.5%	13.0%	171.0%
Allocation % for non personnel costs:					
Total:	100.0%	29.8%	12.1%	3.3%	42.8%

	Total Activity	Calculated Utilities Allocation
Engineering		
Non-Personnel Cost Allocation:		
Water Svcs		\$ 4,003
WW Svcs		4,003
Sanitation		1,073
Streets		<u>14,113</u>
Total Utility Activity Allocation	\$ 33,014	\$ 23,192