



Town of Chino Valley Water and Wastewater Rate Study 2018

This report is prepared to meet the requirements of ARS 9-511.01

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Introduction

The Town of Chino Valley last reviewed and increased water and wastewater rates on February 12, 2013. Resolution 13-1005 adopted a 5 year rate increase schedule for both water and wastewater rates.

On December 8, 2015 the Town Council approved Resolution No. 15-1005 deferring the effective date of next sewer rate increase and keeping the rate at \$64.14 per month.

On May 23, 2017 the Town Council approved Resolution No. 17-1104 which modified the rate schedule to provide additional clarification on how rates are applied to multi-family developments.

Since the Town's final rate increase adopted in February 12, 2013 went into effect on January 1, 2018, the Town has undertaken a detailed study of both the water and wastewater rates currently being charged.

The financial information presented in the rate study is based on the information available as of November 30, 2017. It includes an analysis of the financial impact of various rate options on a cash flow basis and a GAAP basis. Ideally, each system should operate with a positive cash flow and positive GAAP income. The major difference between the Cash Basis and GAAP is depreciation. The projections also exclude future capital expenditures financed with non-operating funds.

Customer growth projections are based on a conservative estimate of adding 30 accounts each year to both systems.

The following issues need to be considered when determining the next rate adjustment for the Water System:

- **City of Prescott Agreement** – In 2013 the Town entered into a Transportation of Water agreement where the City of Prescott makes annual payments for five years of approximately \$58,000. These payments will end in FY 18-19.
- **Amount Due the General Fund** – The General Fund has subsidized the Water System over the years in order to get it up and operating profitably. These funds should be paid back as the Water System has adequate resources available.
- **Capital Improvements** – The Water System should generate sufficient funds to set aside for future capital improvements and system replacements in order to avoid incurring additional debt.

The following issues need to be considered when determining the next rate adjustment for the Wastewater System:

- **Amount Due the General Fund** – The General Fund has subsidized the Wastewater System over the years in order to get it up and operating profitably. The funds should be paid back as the Wastewater System has adequate resources available.
- **Capital Improvements** – The Wastewater System should generate sufficient funds to set aside for future capital improvements and system replacements in order to avoid incurring additional debt.

Water Monthly User Fees

The chart below summarizes the water rate increase history since 2013.

Town of Chino Valley								
Water/Wastewater Rate Schedule								
			Prior	Effective 3/1/13	Effective 1/1/14	Effective 1/1/15	Effective 1/1/16	Effective 1/1/17
WATER RATES								
	Percentage Increase			3.1%	2.8%	3.1%	3.0%	2.9%
	Base Charge							
	Residential and Commercial 3/4"		\$4.84	\$4.99	\$5.13	\$5.29	\$ 5.45	\$ 5.61
	Residential and Commercial 1"		\$8.08	\$8.32	\$8.57	\$8.83	\$ 9.09	\$ 9.37
	Commercial 1 1/2" Meter		\$16.12	\$16.60	\$17.10	\$17.61	\$ 18.14	\$ 18.69
	Commercial 2" Meter		\$25.80	\$26.57	\$27.37	\$28.19	\$ 29.04	\$ 29.91
	Commercial 3" Meter		\$48.40	\$49.85	\$51.35	\$52.89	\$ 54.47	\$ 56.11
	Commercial 4" Meter		\$80.76	\$83.18	\$85.68	\$88.25	\$ 90.90	\$ 93.62
	Volume Charge							
	Stand Pipe Base Rate per 1,000 gallons						\$ 5.45	\$ 5.61
	Number of Gallons Tier 1		\$3.94	\$4.06	\$4.18	\$4.31	\$ 4.43	\$ 4.57
	Number of Gallons Tier 2		\$4.93	\$5.08	\$5.23	\$5.39	\$ 5.55	\$ 5.72
	Number of Gallons Tier 3		\$6.90	\$7.11	\$7.32	\$7.54	\$ 7.77	\$ 8.00

Note the average rate increase averaged 3% each year over this time period.

Water Cash Flow Projections

ARS 9-511-.01 requires the Town to prepare cash flow projections that indicate the anticipated revenues from the proposed rate increases.

“This report proposes changes to the Town’s water rates. Information is included to meet the requirements of ARS 9-511.01.”

Water Enterprise Fund – As planned, the last of five scheduled rate increases went into effect on January 1st of each year. Even with some user account growth, the Town’s General Fund continued to subsidize the Water System each year. The schedule below summarized the actual financial results for the last five fiscal years.

Town of Chino Valley					
Water Enterprise Fund - Projected Annual Cash Flow - Cash Basis*					
Last Five Fiscal Years					
Acct	Actual FY 12-13	Actual FY 13-14	Actual FY 14-15	Actual FY 15-16	Actual FY 16-17
# of Connections	607	626	633	658	701
# of New Connections		19	7	25	43
Annual Percentage Increase Connections		3%	1%	4%	7%
Bill for 7,500 gallons	34.39	35.44	\$36.48	\$37.61	\$38.68
Annual Percentage Increase Rate		3%	3%	3%	3%
REVENUE					
WATER SERVICE FEES	\$436,908	\$366,883	\$381,233	\$457,221	\$426,865
WATER SYSTEM BUY-IN FEES	\$0	\$116,000	\$85,489	\$76,000	\$164,000
WATER METER FEES	\$0	\$10,286	\$7,044	\$6,995	\$15,655
MISCELLANEOUS REVENUE	\$2,670	\$3,455	\$34,349	\$62,378	\$66,388
TRANSFERS FROM CAPITAL IMPROV.	\$362,988	\$220,000	\$280,700	\$150,000	\$75,000
TOTAL REVENUE	\$802,566	\$716,624	\$788,815	\$752,594	\$747,908
EXPENDITURES					
PERSONNEL	\$183,012	\$142,560	\$153,157	\$118,930	\$122,064
BENEFITS	\$74,868	\$64,913	\$60,747	\$52,594	\$57,055
SERVICES AND SUPPLIES	\$268,951	\$308,792	\$249,314	\$210,707	\$178,397
INTERDEPARTMENTAL	\$709	\$88,500	\$88,500	\$82,823	\$100,000
DEBT SERVICE	\$73,208	\$71,895	\$70,879	\$69,712	\$68,363
TOTAL EXPENDITURES	\$600,748	\$676,660	\$622,597	\$534,766	\$525,879
NET INCOME (LOSS) CASH BASIS	\$201,818	\$39,964	\$166,218	\$217,828	\$222,029
OPERATING INCOME (LOSS) GAAP	(\$265,799)	(\$402,463)	(\$322,948)	(\$122,334)	(\$134,508)
AMOUNT DUE GENERAL FUND @ JUNE 30	\$1,278,398	\$1,270,429	\$1,057,070	\$843,816	\$674,160
*Excludes Capital Expenditures financed with non-operating funds.					

With the additional 94 accounts being added since FY 12-13, and the rate increases each year, the Water Enterprise Fund is now generating positive cash flows and has reduced the annual subsidy from the General Fund from a high of \$362,988 in FY 12-13 to \$75,000 in FY 16-17. The amount owed to the General Fund has also decreased from \$1,278,398 to \$674,160 as of June 30, 2017.

Water Rate Options

Three Rate Options were prepared and reviewed below:

Option 1 - No Rate Increase

Option 2 - 3% Rate Increase each year for 5 years

Option 3 - 5% Rate Increase each year for 5 years

Option 1 – No Rate Increase

The chart below summarizes the estimated impact of no rate increases over the next five years.

Town of Chino Valley						
Water Enterprise Fund - Projected Annual Cash Flow - Cash Basis*						
No Rate Increase						
Acct	Projected FY 17-18	Budget FY 18-19	Budget FY 19-20	Budget FY 20-21	Budget FY 21-22	Budget FY 22-23
# of Connections	772	802	832	862	892	922
# of New Connections	45	30	30	30	30	30
Annual Percentage Increase Connections	6%	4%	4%	4%	3%	3%
Bill for 7,500 gallons	\$39.89	\$39.89	\$39.89	\$39.89	\$39.89	\$39.89
Annual Percentage Increase Rate	3%	0%	0%	0%	0%	0%
REVENUE						
WATER SERVICE FEES	\$479,479	\$501,020	\$515,380	\$529,740	\$544,101	\$558,461
EFFECT OF PROPOSED RATE INCREASE		\$0	\$0	\$0	\$0	\$0
WATER SYSTEM BUY-IN FEES	\$180,000	\$120,000	\$120,000	\$120,000	\$120,000	\$120,000
WATER METER FEES	\$19,803	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000
MISCELLANEOUS REVENUE	\$63,829	\$63,000	\$34,000	\$10,000	\$10,000	\$10,000
TRANSFERS FROM CAPITAL IMPROV.	\$25,000	\$0	\$0	\$0	\$0	\$0
TOTAL REVENUE	\$768,111	\$696,020	\$681,380	\$671,740	\$686,101	\$700,461
EXPENDITURES						
PERSONNEL	\$130,441	\$133,008	\$135,654	\$138,377	\$141,177	\$144,000
BENEFITS	\$51,659	\$52,692	\$53,746	\$54,821	\$55,917	\$57,035
SERVICES AND SUPPLIES	\$279,200	\$253,900	\$253,000	\$247,702	\$256,306	\$244,412
INTERDEPARTMENTAL	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
DEBT SERVICE	\$71,700	\$79,800	\$77,800	\$70,500	\$68,000	\$70,000
TOTAL EXPENDITURES	\$633,000	\$619,400	\$620,200	\$611,400	\$621,400	\$615,447
NET INCOME (LOSS) CASH BASIS	\$135,111	\$76,620	\$61,180	\$60,340	\$64,701	\$85,014
OPERATING INCOME (LOSS) GAAP	(\$889)	(\$59,380)	(\$74,820)	(\$70,660)	(\$66,299)	(\$40,986)
AMOUNT DUE GENERAL FUND @ JUNE 30	\$452,131	\$317,020	\$240,400	\$179,220	\$118,880	\$54,179

*Excludes Capital Expenditures financed with non-operating funds.

Note that without a rate increase the water system does not generate adequate funds to pay back the General Fund in the next five years. Also the system generates no funds for Capital Improvements and the system continues to have a GAAP loss each fiscal year.

Option 2 – 3% Rate Increase next 5 years

The chart below summarizes the estimated impact of a 3% rate increase each year over the next five years.

Town of Chino Valley						
Water Enterprise Fund - Projected Annual Cash Flow - Cash Basis*						
3% Rate Increase						
Acct	Projected FY 17-18	Budget FY 18-19	Budget FY 19-20	Budget FY 20-21	Budget FY 21-22	Budget FY 22-23
# of Connections	746	776	806	836	866	896
# of New Connections	45	30	30	30	30	30
Annual Percentage Increase Connections	6%	4%	4%	4%	4%	3%
Bill for 7,500 gallons	\$39.89	\$41.09	\$42.32	\$43.59	\$44.90	\$46.24
Annual Percentage Increase Rate	3%	3%	3%	3%	3%	3%
REVENUE						
WATER SERVICE FEES	\$479,479	\$494,000	\$509,000	\$524,000	\$540,000	\$556,000
EFFECT OF PROPOSED RATE INCREASE		\$14,384	\$14,820	\$15,270	\$15,720	\$16,200
WATER SYSTEM BUY-IN FEES	\$180,000	\$120,000	\$120,000	\$120,000	\$120,000	\$120,000
WATER METER FEES	\$19,803	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000
MISCELLANEOUS REVENUE	\$63,829	\$63,000	\$34,000	\$10,000	\$10,000	\$10,000
TRANSFERS FROM CAPITAL IMPROV.	\$25,000	\$0	\$0	\$0	\$0	\$0
TOTAL REVENUE	\$768,111	\$703,384	\$689,820	\$681,270	\$697,720	\$714,200
EXPENDITURES						
PERSONNEL	\$130,441	\$133,008	\$135,654	\$138,377	\$141,177	\$144,000
BENEFITS	\$51,659	\$52,692	\$53,746	\$54,821	\$55,917	\$57,035
SERVICES AND SUPPLIES	\$279,200	\$253,900	\$253,000	\$247,702	\$256,306	\$244,412
INTERDEPARTMENTAL	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
DEBT SERVICE	\$71,700	\$79,800	\$77,800	\$70,500	\$68,000	\$70,000
TOTAL EXPENDITURES	\$633,000	\$619,400	\$620,200	\$611,400	\$621,400	\$615,447
NET INCOME (LOSS) CASH BASIS	\$135,111	\$83,984	\$69,620	\$69,870	\$76,320	\$98,753
OPERATING INCOME (LOSS) GAAP	(\$889)	(\$52,016)	(\$66,380)	(\$61,130)	(\$54,680)	(\$27,247)
AMOUNT DUE GENERAL FUND @ JUNE 30	\$452,131	\$317,020	\$233,036	\$163,416	\$93,546	\$17,226
*Excludes Capital Expenditures financed with non-operating funds.						

A 3% rate increase essentially pays back the General Fund over the next five years and reduces the annual GAAP loss to \$27,247. No funds are being set aside for future capital projects.

Option 3 – 5% Rate Increase next 5 years

The chart below summarizes the estimated impact of a 5% rate increase each year over the next five years.

Town of Chino Valley						
Water Enterprise Fund - Projected Annual Cash Flow - Cash Basis*						
5% Rate Increase						
Acct	Projected FY 17-18	Budget FY 18-19	Budget FY 19-20	Budget FY 20-21	Budget FY 21-22	Budget FY 22-23
# of Connections	746	776	806	836	866	896
# of New Connections	45	30	30	30	30	30
Annual Percentage Increase Connections	6%	4%	4%	4%	4%	3%
Bill for 7,500 gallons	\$39.89	\$41.88	\$43.98	\$46.18	\$48.49	\$50.91
Annual Percentage Increase Rate	3%	5%	5%	5%	5%	5%
REVENUE						
WATER SERVICE FEES	\$479,479	\$502,097	\$517,929	\$534,553	\$552,008	\$570,336
EFFECT OF PROPOSED RATE INCREASE		\$23,974	\$25,105	\$25,896	\$26,728	\$27,600
WATER SYSTEM BUY-IN FEES	\$180,000	\$120,000	\$120,000	\$120,000	\$120,000	\$120,000
WATER METER FEES	\$19,803	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000
MISCELLANEOUS REVENUE	\$63,829	\$63,000	\$34,000	\$10,000	\$10,000	\$10,000
TRANSFERS FROM CAPITAL IMPROV	\$25,000	\$0	\$0	\$0	\$0	\$0
TOTAL REVENUE	\$768,111	\$721,071	\$709,034	\$702,449	\$720,736	\$739,936
EXPENDITURES						
PERSONNEL	\$130,441	\$133,008	\$135,654	\$138,377	\$141,177	\$144,000
BENEFITS	\$51,659	\$52,692	\$53,746	\$54,821	\$55,917	\$57,035
SERVICES AND SUPPLIES	\$279,200	\$253,900	\$253,000	\$247,702	\$256,306	\$244,412
INTERDEPARTMENTAL	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
DEBT SERVICE	\$71,700	\$79,800	\$77,800	\$70,500	\$68,000	\$70,000
TOTAL EXPENDITURES	\$633,000	\$619,400	\$620,200	\$611,400	\$621,400	\$615,447
NET INCOME (LOSS) CASH BASIS	\$135,111	\$101,671	\$88,834	\$91,049	\$99,336	\$124,489
OPERATING INCOME (LOSS) GAAP	(\$889)	(\$34,329)	(\$47,166)	(\$39,951)	(\$31,664)	(\$1,511)
AMOUNT DUE GENERAL FUND @ JUNE 30	\$452,131	\$317,020	\$215,349	\$126,516	\$35,466	\$0

*Excludes Capital Expenditures financed with non-operating funds.

A 5% rate increase pays back the General Fund in four years and begins generating funds for future Capital Projects in year 5.

Wastewater Monthly User Fees

The chart below summarizes the wastewater rate increase history since 2013.

Town of Chino Valley								
Water/Wastewater Rate Schedule								
			Prior	Effective 3/1/13	Effective 1/1/14	Effective 1/1/15	Effective 1/1/16	Effective 1/1/17
WASTEWATER RATES								
	Percentage Increase			10.3%	9.3%	10.0%	0.0%	0.0%
	Base Charge - Residential		\$48.40	\$53.37	\$58.31	\$64.14	\$ 64.14	\$ 64.14
	Commercial 3/4" Meter		\$48.40	\$53.37	\$58.31	\$64.14	\$ 64.14	\$ 64.14
	Commercial 1" Meter		\$81.00	\$89.31	\$97.58	\$107.37	\$ 107.34	\$ 107.34
	Commercial 1 1/2" Meter		\$161.00	\$177.52	\$193.96	\$213.35	\$ 213.35	\$ 213.35
	Commercial 2" Meter		\$258.00	\$284.47	\$310.81	\$341.89	\$ 341.89	\$ 341.89
	Commercial 3" Meter							\$ 641.65
	Commercial 4" Meter		\$807.00	\$889.80	\$972.19	\$1,069.41	\$ 1,069.41	\$ 1,069.41
MULTI-FAMILY RESIDENTIAL WASTEWATER RATES*								
	Rate Per Fixture Unit (\$64.14/20 Fixture Units)							\$ 3.21
	Rate Per EDU (20 Fixture Units)							\$ 64.14

* Multi Family includes apartments, duplexes, mobile home parks, hotels/motels, schools, churches - properties on a master meter.

Note the average rate increase was 10% each year through January 1, 2015.

Wastewater Cash Flow Projections

ARS 9-511-.01 requires the Town to prepare cash flow projections that indicate the anticipated revenues from the proposed rate increases.

“This report proposes changes to the Town’s waste water rates. Information is included to meet the requirements of ARS 9-511.01.”

Sewer Enterprise Fund - As planned, the Sewer Enterprise Fund was cash flow positive for the first time in fiscal year 2016-2017. Current and planned system extensions and additional user growth should ensure the system will remain cash flow positive in future fiscal years.

Town of Chino Valley					
Sewer Enterprise Fund - Projected Annual Cash Flow - Cash Basis*					
Last Five Fiscal Years					
Acct	Actual FY 12-13	Actual FY 13-14	Actual FY 14-15	Actual FY 15-16	Actual FY 16-17
# of Connections	1685	1689	1735	1740	1744
# of New Connections					4
Annual Percentage Increase Connections		0%	3%	0%	0%
Residential Sewer Bill	\$48.40	\$53.37	\$58.31	\$64.14	\$64.14
Annual Percentage Increase		10%	9%	10%	0%
REVENUE					
SEWER SERVICE FEES	\$1,051,435	\$1,199,376	\$1,342,019	\$1,409,585	\$1,400,835
SEWER SYSTEM BUY-IN FEES	\$64,730	\$251,470	\$106,936	\$81,938	\$406,089
MISCELLANEOUS REVENUE	\$17,942	\$18,967	\$75,234	\$48,297	\$55,303
INTEREST INCOME	\$27,827	\$14,573	\$675	\$1,671	\$2,724
TOTAL REVENUE	\$1,161,934	\$1,484,386	\$1,524,864	\$1,541,491	\$1,864,951
EXPENDITURES					
PERSONNEL	\$175,368	\$142,561	\$153,156	\$146,497	\$184,648
BENEFITS	\$71,664	\$64,566	\$60,653	\$59,970	\$83,650
SERVICES AND SUPPLIES	\$603,136	\$818,658	\$589,636	\$493,166	\$378,941
CAPITAL					
INTERDEPARTMENTAL	\$0	\$69,000	\$69,000	\$173,823	\$190,000
DEBT SERVICE	\$756,748	\$727,547	\$916,561	\$943,080	\$872,880
TOTAL EXPENDITURES	\$1,606,916	\$1,822,332	\$1,789,006	\$1,816,536	\$1,710,119
NET INCOME (LOSS) CASH BASIS	(\$444,982)	(\$337,946)	(\$264,142)	(\$275,045)	\$154,832
OPERATING INCOME (LOSS) GAAP	(\$845,999)	(\$944,215)	(\$790,748)	(\$611,585)	(\$546,186)
AMOUNT DUE GENERAL FUND @ JUNE 30	\$150,614	\$466,715	\$743,554	\$371,019	\$588,302

*Excludes Capital Expenditures financed with non-operating funds.

The Sewer Enterprise Fund owed the General Fund \$588,302 as of June 30, 2017.

Wastewater Rate Options

Three Rate Options were prepared and reviewed below:

Option 1 - No Rate Increase

Option 2 - 3% Rate Increase each year for 5 years

Option 3 - \$2.00 or 3% one-time Rate Decrease

Option 1 – No Rate Increase

The chart below summarizes the estimated impact of no rate increases over the next five years.

Town of Chino Valley						
Sewer Enterprise Fund - Projected Annual Cash Flow - Cash Basis*						
No Rate Increase						
Acct	Projected FY 17-18	Budget FY 18-19	Budget FY 19-20	Budget FY 20-21	Budget FY 21-22	Budget FY 22-23
# of Connections	1794	1824	1854	1884	1914	1944
# of New Connections	50	30	30	30	30	30
Annual Percentage Increase Connections	3%	2%	2%	2%	3%	2%
Residential Sewer Bill	\$64.14	\$64.14	\$64.14	\$64.14	\$64.14	\$64.14
Annual Percentage Increase	0%	0%	0%	0%	0%	0%
REVENUE						
SEWER SERVICE FEES	\$1,506,903	\$1,545,387	\$1,568,477	\$1,591,568	\$1,614,658	\$1,637,749
EFFECT OF PROPOSED RATE INCREASE		\$0	\$0	\$0	\$0	\$0
SEWER SYSTEM BUY-IN FEES	\$494,110	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000
MISCELLANEOUS REVENUE	\$60,024	\$61,000	\$62,000	\$63,000	\$64,000	\$65,000
INTEREST INCOME	\$5,451	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000
TOTAL REVENUE	\$2,066,488	\$1,811,387	\$1,835,477	\$1,859,568	\$1,883,658	\$1,907,749
EXPENDITURES						
PERSONNEL	\$186,557	\$190,301	\$194,115	\$197,999	\$201,953	\$205,976
BENEFITS	\$72,842	\$74,299	\$75,785	\$77,301	\$78,847	\$80,424
SERVICES AND SUPPLIES	\$278,400	\$261,400	\$259,500	\$259,500	\$264,600	\$264,600
CAPITAL	\$210,400	\$68,400	\$59,900	\$57,000	\$57,000	\$48,000
INTERDEPARTMENTAL	\$190,000	\$190,000	\$190,000	\$190,000	\$190,000	\$190,000
DEBT SERVICE	\$902,000	\$900,900	\$900,400	\$889,600	\$889,200	\$888,700
TOTAL EXPENDITURES	\$1,840,199	\$1,685,300	\$1,679,700	\$1,671,400	\$1,681,600	\$1,677,700
NET INCOME (LOSS) CASH BASIS	\$226,289	\$126,087	\$155,777	\$188,168	\$202,058	\$230,049
OPERATING INCOME (LOSS) GAAP	(\$232,011)	(\$316,934)	(\$270,896)	(\$232,025)	(\$200,923)	(\$155,365)
AMOUNT DUE GENERAL FUND @ JUNE 30	\$362,013	\$235,926	\$80,149	\$0	\$0	\$0

*Excludes Capital Expenditures financed with non-operating funds.

Note that without a rate increase the system continues to generate positive cash flow each year, but continues to have a GAAP loss. The General Fund is paid back in FY 20-21.

Option 2 – 3% Rate Increase next 5 years

The chart below summarizes the estimated impact of a 3% rate increase over the next five years.

Town of Chino Valley						
Sewer Enterprise Fund - Projected Annual Cash Flow - Cash Basis*						
3% Rate Increase						
Acct	Projected FY 17-18	Budget FY 18-19	Budget FY 19-20	Budget FY 20-21	Budget FY 21-22	Budget FY 22-23
# of Connections	1794	1824	1854	1884	1914	1944
# of New Connections	50	30	30	30	30	30
Annual Percentage Increase Connections	3%	2%	2%	2%	3%	2%
Residential Sewer Bill	\$64.14	\$66.06	\$68.05	\$70.09	\$72.19	\$74.36
Annual Percentage Increase	0%	3%	3%	3%	3%	3%
REVENUE						
SEWER SERVICE FEES	\$1,506,903	\$1,552,000	\$1,598,000	\$1,646,000	\$1,695,000	\$1,746,000
EFFECT OF PROPOSED RATE INCREASE		\$45,207	\$46,560	\$47,940	\$49,380	\$50,850
SEWER SYSTEM BUY-IN FEES	\$494,110	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000
MISCELLANEOUS REVENUE	\$60,024	\$61,000	\$62,000	\$63,000	\$64,000	\$65,000
INTEREST INCOME	\$5,451	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000
TOTAL REVENUE	\$2,066,488	\$1,863,207	\$1,911,560	\$1,961,940	\$2,013,380	\$2,066,850
EXPENDITURES						
PERSONNEL	\$186,557	\$190,301	\$194,115	\$197,999	\$201,953	\$205,976
BENEFITS	\$72,842	\$74,299	\$75,785	\$77,301	\$78,847	\$80,424
SERVICES AND SUPPLIES	\$278,400	\$261,400	\$259,500	\$259,500	\$264,600	\$264,600
CAPITAL	\$210,400	\$68,400	\$59,900	\$57,000	\$57,000	\$48,000
INTERDEPARTMENTAL	\$190,000	\$190,000	\$190,000	\$190,000	\$190,000	\$190,000
DEBT SERVICE	\$902,000	\$900,900	\$900,400	\$889,600	\$889,200	\$888,700
TOTAL EXPENDITURES	\$1,840,199	\$1,685,300	\$1,679,700	\$1,671,400	\$1,681,600	\$1,677,700
NET INCOME (LOSS) CASH BASIS	\$226,289	\$177,907	\$231,860	\$290,540	\$331,780	\$389,150
OPERATING INCOME (LOSS) GAAP	(\$232,011)	(\$265,114)	(\$194,813)	(\$129,653)	(\$71,201)	\$3,736
AMOUNT DUE GENERAL FUND @ JUNE 30	\$362,013	\$184,106	\$0	\$0	\$0	\$0

*Excludes Capital Expenditures financed with non-operating funds.

A 3% rate increase over the next 5 years will allow the system to break even on a GAAP basis in 5 years. This option also provides significant funds for future capital improvements. The General Fund is paid back in FY 19-20.

Option 3 – \$2 or 3% One-Time Rate Decrease

The chart below summarizes the estimated impact of a one-time \$2.00 or 3% rate decrease over the next five years.

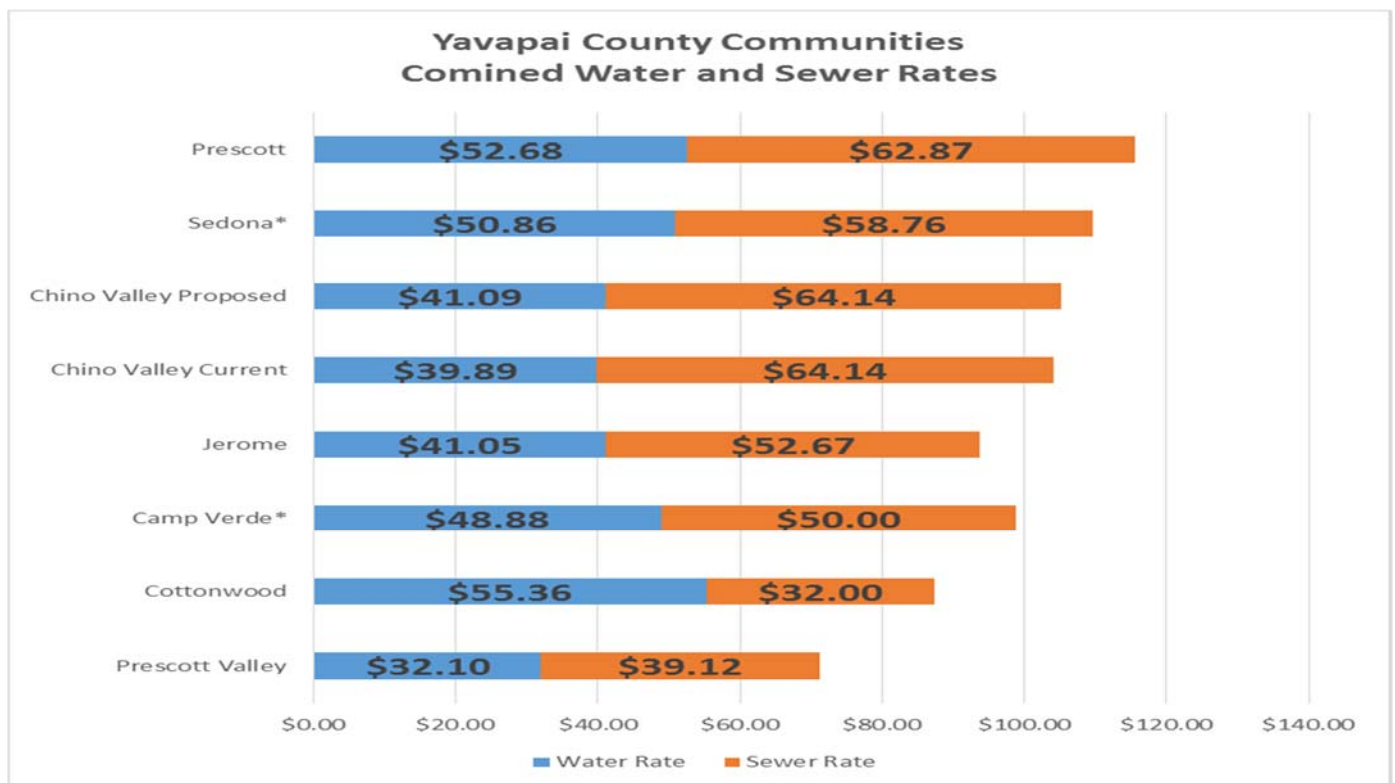
Town of Chino Valley						
Sewer Enterprise Fund - Projected Annual Cash Flow - Cash Basis*						
\$2.00 Rate Decrease 3%						
Acct	Projected FY 17-18	Budget FY 18-19	Budget FY 19-20	Budget FY 20-21	Budget FY 21-22	Budget FY 22-23
# of Connections	1794	1824	1854	1884	1914	1944
# of New Connections	50	30	30	30	30	30
Annual Percentage Increase Connections	3%	2%	2%	2%	3%	2%
Residential Sewer Bill	\$64.14	\$62.14	\$62.14	\$62.14	\$62.14	\$62.14
Annual Percentage Increase	0%	-3%	-3%	-3%	-3%	-3%
REVENUE						
SEWER SERVICE FEES	\$1,506,903	\$1,552,000	\$1,598,000	\$1,646,000	\$1,695,000	\$1,746,000
EFFECT OF PROPOSED RATE INCREASE		(\$45,207)	(\$46,560)	(\$47,940)	(\$49,380)	(\$50,850)
SEWER SYSTEM BUY-IN FEES	\$494,110	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000
MISCELLANEOUS REVENUE	\$60,024	\$61,000	\$62,000	\$63,000	\$64,000	\$65,000
INTEREST INCOME	\$5,451	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000
TOTAL REVENUE	\$2,066,488	\$1,772,793	\$1,818,440	\$1,866,060	\$1,914,620	\$1,965,150
EXPENDITURES						
PERSONNEL	\$186,557	\$190,301	\$194,115	\$197,999	\$201,953	\$205,976
BENEFITS	\$72,842	\$74,299	\$75,785	\$77,301	\$78,847	\$80,424
SERVICES AND SUPPLIES	\$278,400	\$261,400	\$259,500	\$259,500	\$264,600	\$264,600
CAPITAL	\$210,400	\$68,400	\$59,900	\$57,000	\$57,000	\$48,000
INTERDEPARTMENTAL	\$190,000	\$190,000	\$190,000	\$190,000	\$190,000	\$190,000
DEBT SERVICE	\$902,000	\$900,900	\$900,400	\$889,600	\$889,200	\$888,700
TOTAL EXPENDITURES	\$1,840,199	\$1,685,300	\$1,679,700	\$1,671,400	\$1,681,600	\$1,677,700
NET INCOME (LOSS) CASH BASIS	\$226,289	\$87,493	\$138,740	\$194,660	\$233,020	\$287,450
OPERATING INCOME (LOSS) GAAP	(\$232,011)	(\$355,528)	(\$287,933)	(\$225,533)	(\$169,961)	(\$97,964)
AMOUNT DUE GENERAL FUND @ JUNE 30	\$362,013	\$274,520	\$135,780	\$0	\$0	\$0
*Excludes Capital Expenditures financed with non-operating funds.						

The wastewater rate for the Town is 65% higher than the average rate in the State of Arizona and 28% higher than systems within 50 miles of Chino Valley. Reducing the rate will reduce the annual cash flow by an average of \$48,000 over the next five years. Each \$1.00 in rate reduction will reduce the annual cash flow by an average of \$24,000 each year. It will also reduce the amount of funds available for capital improvements and the system will continue to have a GAAP loss each year.

Other Community Comparison

The chart below summarizes the average water and sewer rates being charged within the State of Arizona and by systems within 50 miles of the Town of Chino Valley. Rates of other Yavapai County communities were also compared.

Other Cities and Towns Rate Comparisons								
November 30, 2017								
	Current Chino Valley Rate	State of Arizona Median Rate	Within 50 miles					
Water Rate for 7,500 gallons/month	\$39.89	\$42.08	\$47.69					
Sewer Rate	\$64.14	\$38.87	\$50.00					
Total	\$104.03	\$80.95	\$97.69					
Yavapai County Communities								
	Prescott Valley	Cottonwood	Camp Verde*	Jerome	Chino Valley Current	Chino Valley Proposed	Sedona*	Prescott
Water Rate for 7,500 gallons/month	\$32.10	\$55.36	\$48.88	\$41.05	\$39.89	\$41.09	\$50.86	\$52.68
Sewer Rate	\$39.12	\$32.00	\$50.00	\$52.67	\$64.14	\$64.14	\$58.76	\$62.87
Total	\$71.22	\$87.36	\$98.88	\$93.72	\$104.03	\$105.23	\$109.62	\$115.55
* Private Water Company								
Source: Water Infrastructure Finance Authority								



Water and Wastewater Buy-In Fees

The Town of Chino Valley last revised the buy in fees rate in 2013. The table below summarizes the adopted rate schedule.

Town of Chino Valley							
Water/Wastewater Rate Schedule							
		Prior	Effective 3/1/13	Effective 1/1/14	Effective 1/1/15	Effective 1/1/16	Effective 1/1/17
WATER BUY IN FEES							
Residential	Residential 3/4" & 1" Meter	\$854.00	\$4,000.00	\$4,000.00	\$4,000.00	\$ 4,000.00	\$ 4,000.00
Multi-family	3/4" & 1" Meter Per Unit	\$775.00	\$3,630.00	\$3,630.00	\$3,630.00	\$ 3,630.00	\$ 3,630.00
Hotels/Motels	Per Room	\$719.00	\$3,056.00	\$3,056.00	\$3,056.00	\$ 3,056.00	\$ 3,056.00
Commercial	3/4" Meter	\$854.00	\$4,000.00	\$4,000.00	\$4,000.00	\$ 4,000.00	\$ 4,000.00
Commercial	1" Meter	\$1,424.00	\$6,670.00	\$6,670.00	\$6,670.00	\$ 6,670.00	\$ 6,670.00
Commercial	1/2" Meter	\$2,868.00	\$13,433.00	\$13,433.00	\$13,433.00	\$ 13,433.00	\$ 13,433.00
Commercial	2" Meter	\$4,588.00	\$21,489.00	\$21,489.00	\$21,489.00	\$ 21,489.00	\$ 21,489.00
Commercial	3" Meter	\$8,606.00	\$40,309.00	\$40,309.00	\$40,309.00	\$ 40,309.00	\$ 40,309.00
Commercial	4" Meter	\$14,346.00	\$67,197.00	\$67,197.00	\$67,197.00	\$ 67,194.00	\$ 67,194.00
Commercial	6" Meter	\$28,683.00	\$134,347.00	\$134,347.00	\$134,347.00	\$134,347.00	\$134,347.00
Commercial	8" Meter	\$45,896.00	\$214,970.00	\$214,970.00	\$214,970.00	\$214,970.00	\$214,970.00
Commercial	10" Meter	\$65,980.00	\$309,040.00	\$309,040.00	\$309,040.00	\$309,040.00	\$309,040.00
Commercial	12" Meter	\$123,347.00	\$577,738.00	\$577,738.00	\$577,738.00	\$577,738.00	\$577,738.00
WASTEWATER BUY IN FEES							
	Residential	\$4,691.00	\$6,000.00	\$6,000.00	\$6,000.00	\$ 6,000.00	\$ 6,000.00
	Commercial and Multi-family Residential						
	Based on EDU Calculation						EDU
	# of fixture Units per EDU						20
	Calculated Buy In Fee per FU						\$ 300.00

The Town of Chino Valley has made significant capital investments in the water and wastewater systems. The Town charges these one-time fees to new development to recover a proportional share of the costs associated with developing the systems.

Water Buy In Fees

The Table below summarizes the capital investment made by the Town to establish the water system.

Town of Chino Valley						
Enterprise Fund Buy In Fee Calculation						
Fiscal Year Ended June 30, 2017						
	Ending Fixed Assets @ 6/30/17	Ending Accu. Depr. 6/30/17	Book Value @ 6/30/17	# of Account Capacity	Original Cost Per Account	Book Value @ 6/30/17 Per Account
UTILITY - WATER	Current Fee	\$ 4,000				
Bldgs/Improvements	\$ 6,433	\$ 6,433	\$ -			
Equipment	\$ 250,962	\$ 150,459	\$ 100,503			
Infrastructure	\$ 3,361,625	\$ 1,591,091	\$ 1,770,534			
Non-Depreciable Land	\$ 3,211,136	\$ -	\$ 3,211,136			
Vehicles	\$ -	\$ -	\$ -			
Water Rights	\$ 668,553	\$ -	\$ 668,553			
	\$ 7,498,710	\$ 1,747,983	\$ 5,750,727	1,625	\$ 4,615	\$ 3,539
			Water Buy In Fee Range		\$ 4,600	\$ 3,500
System Capacity Calculation						
Total Storage Capacity	1,000,000					
Fire Flow	(240,000)					
48 hours of avg. daily demand	(200,000)					
Available for Consumption	560,000					
Peak Demand	(300,000)					
Total Capacity	260,000					
GPD per SFH	160					
Total Homes to Capacity	1,625					
Total Current Accounts	746					
Remaining Capacity	879					

In total the Town has invested 7.5 million into the water system that has the capacity to serve up to 1,625 accounts. The acquisition cost divided by the capacity (\$7,498,710/1625 accounts) give us the original cost per account of \$4,615. Using the current book value the total amount per account is (\$5,750,727/1625) \$3,539. Without adjusting either amount for inflation, the reasonable buy in fee range is \$3,500 - \$4,600.

Sewer Buy In Fees

The Table below summarizes the capital investment made by the Town to establish the waste water system.

Town of Chino Valley						
Enterprise Fund Buy In Fee Calculation						
Fiscal Year Ended June 30, 2017						
	Ending Fixed Assets @ 6/30/17	Ending Accu. Depr. 6/30/17	Book Value @ 6/30/17	# of Account Capacity	Original Cost Per Account	Book Value @ 6/30/17 Per Account
UTILITY - SEWER	Current Fee	\$ 6,000				
Bldgs/Improvements	\$ 9,859,455	\$ 2,339,656	\$ 7,519,799			
Equipment/Vehicles	\$ 823,107	\$ 185,631	\$ 637,476			
Infrastructure	\$ 22,181,927	\$ 7,392,029	\$ 14,789,898			
	\$ 32,864,489	\$ 9,917,316	\$ 22,947,173	4,000	\$ 8,216	\$ 5,737
			Sewer Buy In Fee Range		\$ 8,200	\$ 5,800
System Capacity Calculation						
Design Capacity of Plant gpd	\$ 500,000	4,000				
Current Average flow gpd	\$ 320,000					
% of Design Capacity	64%					
Remaining Capacity gpd	\$ 180,000					
Avg gallons per home per day	\$ 125					
Total homes to capacity	4,000					
Total current accounts	1,765					
Remaining Capacity	2,235					
Current Volume	260,000					
Current Customers	1,765					
Gallons Per Day	147					

In total the Town has invested 32.8 million into the waste water system that has the capacity to serve up to 4,000 accounts. The acquisition cost divided by the capacity (\$32,864,489/4000 accounts) give us the original cost per account of \$8,216. Using the current book value the total amount per account is (\$22,947,173/4000) \$5,737. Without adjusting either amount for inflation, the reasonable buy in fee range is \$5,800 - \$8,200.

Cost to Build In Yavapai County

Prior to considering increasing Buy In Fees, consideration needs to be given to the cost of building in the local area. Chino Valley does not want to raise the buy in fees to a level that deters building. The table below summarizes the estimated cost of building a typical single family home in Prescott, Prescott Valley, and in Yavapai County.

Town of Chino Valley				
Single Family Home Comparision 1600-1800 sq ft/ 3 bed 2 bath				
	Chino Valley	Prescott	Prescott Valley	Yavapai County
Building Permit Fee	\$ 2,546.00	\$ 1,200.00	\$ 2,873.00	\$ 2,500.00
Impact Fee			\$ 5,196.00	
Water System				\$ 7,500.00
Water Resource Fee		\$ 4,709.00		
Buy In - Capacity Fee	\$ 4,000.00	\$ 5,132.00	\$ 3,087.00	
Connection Fee	\$ 469.00	\$ 1,481.00	\$ 474.00	
Sewer System				\$ 7,500.00
Buy In - Capacity Fee	\$ 6,000.00	\$ 1,120.00	\$ 3,014.00	
Connection Fee	\$ 141.00			
Total	\$ 13,156.00	\$ 13,642.00	\$ 14,644.00	\$ 17,500.00

Summary of Rate Alternatives - Staff Recommendation

The table below summarizes the the rate options reviewed in this report. The highlighted options are recommended by staff.

Town of Chino Valley						
Rate Option Summary						
	Current Rate	Effective 7/1/18	Effective 7/1/19	Effective 7/1/20	Effective 7/1/21	Effective 7/1/22
Water Enterprise Fund						
Option 1 - No Rate Increase	\$39.89	\$39.89	\$39.89	\$39.89	\$39.89	\$39.89
Option 2 - 3% Rate Increase each year for 5 years	\$39.89	\$41.09	\$42.32	\$43.59	\$44.90	\$46.24
Option 3 - 5% Rate Increase each year for 5 years	\$39.89	\$41.88	\$43.98	\$46.18	\$48.49	\$50.91
Wastewater Enterprise Fund						
Option 1 - No Rate Increase	\$64.14	\$64.14	\$64.14	\$64.14	\$64.14	\$64.14
Option 2 - 3% Rate Increase each year for 5 years	\$64.14	\$66.06	\$68.05	\$70.09	\$72.19	\$74.36
Option 3 - \$2.00 or 3% one-time Rate Decrease	\$64.14	\$62.14	\$62.14	\$62.14	\$62.14	\$62.14
Water Buy In Fee	\$4,000.00	\$4,120.00	\$4,243.60	\$4,370.91	\$4,502.04	\$4,637.10
Sewer Buy In Fee	\$6,000.00	\$6,180.00	\$6,365.40	\$6,556.36	\$6,753.05	\$6,955.64

Rate Change Calendar

The following steps are required in order to adopt any rate changes.

Town of Chino Valley		
Wastewater Rate Change Calendar		
Date	Item	Requirement
11/7/2017	Discuss rate study with Finance Committee	
December-17	Finance Department Prepares Draft Study to Council	
1/23/2018	Written Report presented to Council. Council Adopts Notice of intention to increase rates and holds a public hearing	At least 60 days prior to public hearing
2/26/2018	File copy of report with Clerk and post on website	Posted on the website 30 days prior to public hearing
2/28/2018	Publish notice of intention to hold public hearing	Not less than 20 days before public hearing
3/27/2018	Hold Public Hearing / Adopt Resolution	At least 60 days after notice of intent
7/1/2018	New Rate becomes effective	30 days after adoption

Detailed Rate Schedule with Proposed Rates

Town of Chino Valley										
Water/Wastewater Rate Schedule - With Proposed Rates										
					Current Rates	Effective 7/1/18	Effective 7/1/19	Effective 7/1/20	Effective 7/1/21	Effective 7/1/22
Usage										
WATER RATES										
	Percentage Increase				3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
	Base Charge									
	Residential and Commercial 3/4" Meter				\$ 5.61	\$ 5.78	\$ 5.95	\$ 6.13	\$ 6.31	\$ 6.50
	Residential and Commercial 1" Meter				\$ 9.37	\$ 9.65	\$ 9.94	\$ 10.24	\$ 10.55	\$ 10.86
	Commercial 1 1/2" Meter				\$ 18.69	\$ 19.25	\$ 19.83	\$ 20.42	\$ 21.04	\$ 21.67
	Commercial 2" Meter				\$ 29.91	\$ 30.81	\$ 31.73	\$ 32.68	\$ 33.66	\$ 34.67
	Commercial 3" Meter				\$ 56.11	\$ 57.79	\$ 59.53	\$ 61.31	\$ 63.15	\$ 65.05
	Commercial 4" Meter				\$ 93.62	\$ 96.43	\$ 99.32	\$ 102.30	\$ 105.37	\$ 108.53
	Volume Charge									
	Stand Pipe Base Rate per 1,000 gallons				\$ 5.61	\$ 5.78	\$ 5.95	\$ 6.13	\$ 6.31	\$ 6.50
		Number of Gallons Tier 1	0 8000		\$ 4.57	\$ 4.71	\$ 4.85	\$ 4.99	\$ 5.14	\$ 5.30
		Number of Gallons Tier 2	8001 20000		\$ 5.72	\$ 5.89	\$ 6.07	\$ 6.25	\$ 6.44	\$ 6.63
		Number of Gallons Tier 3	20001 Above		\$ 8.00	\$ 8.24	\$ 8.49	\$ 8.74	\$ 9.00	\$ 9.27
	Country West per 12/14/2001 agreement				\$ 0.70					
			12/14/2021		\$ 0.84					
			12/14/2031		\$ 1.01					
WASTEWATER RATES										
	Percentage Increase				0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Base Charge - Residential				\$ 64.14	\$ 64.14	\$ 64.14	\$ 64.14	\$ 64.14	\$ 64.14
	Commercial 3/4" Meter				\$ 64.14	\$ 64.14	\$ 64.14	\$ 64.14	\$ 64.14	\$ 64.14
	Commercial 1" Meter				\$ 107.34	\$ 107.34	\$ 107.34	\$ 107.34	\$ 107.34	\$ 107.34
	Commercial 1 1/2" Meter				\$ 213.35	\$ 213.35	\$ 213.35	\$ 213.35	\$ 213.35	\$ 213.35
	Commercial 2" Meter				\$ 341.89	\$ 341.89	\$ 341.89	\$ 341.89	\$ 341.89	\$ 341.89
	Commercial 3" Meter				\$ 641.65	\$ 641.65	\$ 641.65	\$ 641.65	\$ 641.65	\$ 641.65
	Commercial 4" Meter				\$ 1,069.41	\$ 1,069.41	\$ 1,069.41	\$ 1,069.41	\$ 1,069.41	\$ 1,069.41
MULTI-FAMILY RESIDENTIAL WASTEWATER RATES*										
	Rate Per Fixture Unit (\$64.14/20 Fixture Units)				\$ 3.21	\$ 3.21	\$ 3.21	\$ 3.21	\$ 3.21	\$ 3.21
	Rate Per EDU (20 Fixture Units)				\$ 64.14	\$ 64.14	\$ 64.14	\$ 64.14	\$ 64.14	\$ 64.14
* Multi Family includes apartments, duplexes, mobile home parks, hotels/motels, schools, churches - properties on a master meter.										
						3.0%	3.0%	3.0%	3.0%	3.0%
WATER BUY IN FEES										
	Residential	Residential 3/4" & 1" Meter			\$ 4,000.00	\$ 4,120.00	\$ 4,243.60	\$ 4,370.91	\$ 4,502.04	\$ 4,637.10
	Multi-family	3/4" & 1" Meter Per Unit			\$ 3,630.00	\$ 3,738.90	\$ 3,851.07	\$ 3,966.60	\$ 4,085.60	\$ 4,208.16
	Hotels/Motels	Per Room			\$ 3,056.00	\$ 3,147.68	\$ 3,242.11	\$ 3,339.37	\$ 3,439.55	\$ 3,542.74
	Commercial	3/4" Meter			\$ 4,000.00	\$ 4,120.00	\$ 4,243.60	\$ 4,370.91	\$ 4,502.04	\$ 4,637.10
	Commercial	1" Meter			\$ 6,670.00	\$ 6,870.10	\$ 7,076.20	\$ 7,288.49	\$ 7,507.14	\$ 7,732.36
	Commercial	1/2" Meter			\$ 13,433.00	\$ 13,835.99	\$ 14,251.07	\$ 14,678.60	\$ 15,118.96	\$ 15,572.53
	Commercial	2" Meter			\$ 21,489.00	\$ 22,133.67	\$ 22,797.68	\$ 23,481.61	\$ 24,186.06	\$ 24,911.64
	Commercial	3" Meter			\$ 40,309.00	\$ 41,518.27	\$ 42,763.82	\$ 44,046.73	\$ 45,368.13	\$ 46,729.18
	Commercial	4" Meter			\$ 67,194.00	\$ 69,209.82	\$ 71,286.11	\$ 73,424.70	\$ 75,627.44	\$ 77,896.26
	Commercial	6" Meter			\$ 134,347.00	\$ 138,377.41	\$ 142,528.73	\$ 146,804.59	\$ 151,208.73	\$ 155,744.99
	Commercial	8" Meter			\$ 214,970.00	\$ 221,419.10	\$ 228,061.67	\$ 234,903.52	\$ 241,950.63	\$ 249,209.15
	Commercial	10" Meter			\$ 309,040.00	\$ 318,311.20	\$ 327,860.54	\$ 337,696.35	\$ 347,827.24	\$ 358,262.06
	Commercial	12" Meter			\$ 577,738.00	\$ 595,070.14	\$ 612,922.24	\$ 631,309.91	\$ 650,249.21	\$ 669,756.69
WASTEWATER BUY IN FEES										
	Residential				\$ 6,000.00	\$ 6,180.00	\$ 6,365.40	\$ 6,556.36	\$ 6,753.05	\$ 6,955.64
	Commercial and Multi-family Residential									
		Based on EDU Calculation			EDU					
		# of fixture Units per EDU			20					
		Calculated Buy In Fee per FU			\$ 300.00	\$ 309.00	\$ 318.27	\$ 327.82	\$ 337.65	\$ 347.78