City of Carroll

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MEMO TO: Mike Pogge-Weaver, City Manager MJPW

FROM: Randall M. Krauel, Director of Public Works RMK

DATE: June 9, 2021

SUBJECT: Sanitary Sewer Rate Study

On February 22, 2021, a Work Session was conducted on the Sanitary Sewer Rate Study with Veenstra & Kimm, Inc. Direction to Veenstra & Kimm, Inc. following discussion was to prepare an additional Alternative similar to the original Alternative 3 – Equitable Distribution of Increase Only – Residential/Commercial Users 20% Increase. The additional Alternative was requested to include the following:

- Calculate using a Residential/Commercial increase of 4% per year.
- Include the Residential/Commercial % increase on the Table.
- Illustrate increases in 0.1% increments.

In addition to the requested Alternative, a fifth Alternative has been prepared that includes the following considerations:

- Capital Improvement Program. Including the currently approved CIP estimated expenditures in the rate analysis.
- Sewer Utility Fund Balance. Expenditure of approximately one-half of the Sewer Utility Fund balance on capital projects.
- Significant Industrial User Equitable Rate Phase-in. A five-year and ten-year phase-in to Significant Industrial User equitable rates.

Olivia Patton with Veenstra & Kimm, Inc. will be available to present the Study updates.

RECOMMENDATION: Mayor and City Council consideration of development of a sanitary sewer rate schedule that addresses proposed capital expenditures and Significant Industrial User rate equity over a period of 10 years.

RMK:ds

SANITARY SEWER RATE STUDY

CARROLL, IOWA

VEENSTRA & KIMM, INC.

JUNE 2021

CURRENT REVENUE

Revenue Category	FY 15/16	FY 16/17	FY 17/18	FY 18/19	FY 19/20	Average
Sewer Operating Revenues	$2,047,445	$2,151,860	$2,146,528	$2,117,659	$2,102,846	$2,113,268
Non-Operating Revenues	$68,860	$93,468	$111,086	$148,290	$786,408	$241,662
Revenue Total	$2,116,305	$2,245,328	$2,257,614	$2,265,949	$2,889,254	$2,354,890

$2.11 - $2.35 MILLION

GENERATED FROM SANITARY SEWER USAGE

CURRENT EXPENSES

Expense Category	FY 15/16	FY 16/17	FY 17/18	FY 18/19	FY 19/20	Average
Labor & Administration	$354,041	$424,897	$447,270	$475,101	$509,095	$442,081
Services & Commodities	$225,079	$214,901	$241,272	$259,669	$255,252	$239,235
Capital Outlay	$48,782	$46,640	$465,605	$141,377	$1,453,546	$175,601
Debt Servicing	$675,300	$681,320	$688,000	$693,320	$699,300	$687,448
Transfers to Capital Improvements and Depreciation Funds	$72,945	$67,978	$78,824	$74,235	$714,480	$201,692
Total Annual Expenses	**$1,376,147**	**$1,435,736**	**$1,920,971**	**$1,643,702**	**$3,631,673**	**$1,746,057**

$1.6 – $3.6 MILLION

REQUIRED FROM SEWER RATES

CURRENT EXPENSES COVERED?

	FY 15/16	FY 16/17	FY 17/18	FY 18/19	FY 19/20	Average
Revenues	$2,116,305	$2,245,328	$2,257,614	$2,265,949	$2,889,254	$2,354,890
Expenses	$1,376,147	$1,435,736	$1,920,971	$1,643,702	$3,631,673	$1,746,057
Over/(Under)	$740,158	$809,592	$336,643	$622,247	$(742,419)	$608,833

HISTORICALLY, YES;

WILL NEED ADDITIONAL REVENUE FOR FUTURE EXPENSES.

CURRENT RATE STRUCTURE

USAGE VS. REVENUE BASED ON CURRENT RATE STRUCTURE

Customer Class	Percent Usage (Volume)	Percent Usage (Organic Loading)	Percent Revenue
Residential/Commercial Users	90%	75%	96.4%
Significant Industrial User 1 Process Wastewater	9%	23%	3.2%
Significant Industrial User 2 (Process Only)	1%	2%	0.4%

COMPARISON of COMMUNITIES

CURRENT RATE STRUCTURE

	Population	Minimum Fee	Volume Included in Min.	Usage Rate	Average Residential Monthly Bill (700 cf)	Industrial Surcharges BOD	TSS	TKN/NH3-N
Le Mars	9,941	$ 8.51		$ 2.24 per 1000 gal	$ 20.23	$0.196 per lb	$0.254 per lb	$0.868 per lb
Decorah*	7,701	$ 27.32		$ 2.70 per 100 cf	$ 25.73	$0.100 per lb	$0.120 per lb	
Denison	8,337	$ 9.80		$ 3.34 per 1000 gal	$ 27.30			
Spencer **	11,052	$ 9.68	1,000 gals	$ 5.06 per 1000 gal	$ 31.13			
Mount Pleasant	8,581	$ 7.50		$ 5.90 per 1000 gal	$ 38.42			
Carroll	10,103	$ 8.45		$ 4.41 per 100 cf	$ 39.32	$0.200 per lb	$0.200 per lb	
Grimes	12,839	$ -		$ 7.65 per 1000 gal	$ 40.09			
Waverly	10,094	$ 14.43	245 cf	$ 5.89 per 100 cf	$ 41.23			
Pleasant Hill (WRA)	9,871	$ 10.86		$ 6.48 per 1000 gal	$ 44.82			
Webster City	7,732	$ 20.00		$ 3.75 per 100 cf	$ 46.25	$0.580 per lb	$0.270 per lb	$4.600 per lb
Grinnell	9,031	$ 4.51		$ 6.17 per 100 cf	$ 47.70			
Storm Lake	10,558	$ 20.80		$ 3.88 per 100 cf	$ 47.96	$0.470 per lb	$0.370 per lb	$1.770 per lb
Pella	10,231	$ 21.42		$ 5.36 per 1000 gal	$ 49.51			
Keokuk	10,324	$ 30.38	2,000 gal	$ 6.69 per 1000 gal	$ 52.06	0.207 per lb	0.202 per lb	
Fort Madison	10,513	$ 25.50		$ 5.90 per 1000 gal	$ 56.42	$0.800 per lb	$0.840 per lb	$2.520 per lb
Norwalk	10,987	$ 7.50		$10.23 per 1000 gal	$ 61.11			
Fairfield	10,290	$ 19.60		$ 6.47 per 100 cf	$ 64.89	$0.216 per lb	$0.240 per lb	$0.720 per lb
Oskaloosa	11,511	$ 19.15		$ 8.62 per 100 cf	$ 79.49			

PROJECTION OF FUTURE EXPENSES

(PREVIOUSLY PRESENTED)

Expense Category	Average Historical Expense	Planned Annual % Increase	Average Planned Annual Increase	Projected Future Expense (in 2020)	Projected Future Expense (in 2025)
Labor & Administration	$442,081	4%	$19,000	$459,764	$537,859
Services & Commodities	$239,235	6%	$16,000	$253,589	$320,150
Capital Outlay	$175,601*	5%	$10,000	$184,381	$224,116
Debt Servicing	$687,448	1%	$7,000	$699,300	$727,400**
Transfers to CIP and Depreciation Funds	$201,692	---	$490,000	$695,000	$695,000
Total Annual Expenses	$1,746,057		$542,000	$2,292,034	$2,504,525

*Capital Outlay average is taken through FY18/19, as FY19/20 includes significant CIP funding which is analyzed as "Transfers To" for future projections.

**For the purpose of this Study, funding for Debt Servicing is projected to be expended for sanitary sewer rehabilitation following completion of debt payment in FY 2024-2025.

PROJECTION OF FUTURE EXPENSES

(PREVIOUSLY PRESENTED)

CIP PROJECTS:

CIP Project	FY 19	FY 20	FY 21	FY 22	FY 23	TOTAL
Sanitary Sewer Infrastructure-JetVac Equipment Purchase	$481,000	$-	$-	$-	$-	$481,000
WWTP Improvements – UV Disinfection	$1,046,000	$-	$-	$-	$-	$1,046,000
WWTF Improvements – Nutrient Reduction	$-	$-	$-	$80,000	$630,000	$710,000
WWTF Improvements – Copper Compliance	$100,000	$100,000	$-	$-	$-	$200,000
ANNUAL TOTAL	$1,627,000	$100,000	$-	$80,000	$630,000	$2,437,000

*Nutrient Reduction and Copper Compliance projects are currently in data collection phases. Following completion of data collection, analysis will provide direction for planning Capital Improvement Projects. The eventual selected Capital Improvement Projects may alter these funding projections.

POTENTIAL CHANGES TO RATE STRUCTURE

1) **Equitable distribution** of expenses weighted by **percentage of total organic loading** used by each customer class;
2) **Equitable distribution** of expenses weighted by **percentage of total flow** used by each customer class;
3) **Increase the residential rates by 20%**, increase industrial customer class accordingly to achieve required revenue;
3a) **Increase the residential rates by 4% annually for 5 years**, increase industrial customer class accordingly to achieve required revenue;
4) **Increase the residential rates by 25%**, increase industrial customer class accordingly to achieve required revenue;

FUTURE RATE ALTERNATIVE No. 1

ALTERNATIVE 1 - Equitable Redistribution Based on Organic Loading Usage

Customer Class	Number of Accounts	Minimum Charged	Total Annual Usage for Class (100 cf)	Average Monthly Usage per User (100 cf)	2025 Requirements: Rate Per 100 cf/ Unit	Average Account Monthly Bill	Approximate Monthly Revenue	Total Annual Revenue	Total Annual Usage (100 cf)	Total Calculated Annual Revenue	Required Total Revenue in 2025
Residential/Commercial User											
Small End Users (Residential)	4,300	$ 8.45	365,000	7	$ 4.00	$ 36.45	$ 156,735	$ 1,880,820	365,000	$ 1,880,820	
Significant Industrial Users											
Significant Industrial User 1 (Sanitary Waste)	1	$ 8.45	2,320	194	$ 4.00	$ 776.00	$ 776	$ 9,312			
(Process Waste) (reported in 1,000 gal)	1		29,000	2,417	$ 4.00	$ 9,668.00	$ 9,668	$ 116,016			
Strength Surcharges			(average lbs)	20,000	$ 1.500	$ 30,000.00	$ 30,000	$ 360,000	34,370	$ 544,968	
Significant Industrial User 2 (reported in 1,000 gal)	1	$ 8.45	3,050	255	$ 4.00	$ 1,020.00	$ 1,020	$ 12,240			
Strength Surcharges			(average lbs)	2,500	$ 1.500	$ 3,750.00	$ 3,750	$ 45,000			
(Metals Surcharge)							$ 200	$ 2,400			
								TOTALS	399,370	$ 2,425,788	$ 2,500,000

Residential Revenue Percentage	78%
Industrial Revenue Percentage	22%

Change to Average Monthly Bill for Industrial Users

	New	Old	Increase	Percent Increase
Significant Industrial User 1	$ 39,668.00	$ 4,967	$ 34,701.20	699%
Significant Industrial User 2	$ 4,770.00	$ 755.00	$ 4,015.00	532%

FUTURE RATE ALTERNATIVE No. 1

ANNUAL CHANGES

New Unit Rate Annual Change	Annual Change	Year 1	Year 2	Year 3	Year 4	Year 5
		New Rate Per Year				
Residential Users	-1.9%	$ 4.32	$ 4.24	$ 4.16	$ 4.08	$ 4.00
Significant Industrial User *(Process)*	58.5%	$ 0.63	$ 1.00	$ 1.59	$ 2.52	$ 4.00
Significant Industrial User *(Loading Surcharge)*	49.6%	$ 0.30	$ 0.45	$ 0.67	$ 1.00	$ 1.50

New Total Monthly Bill Annual Change	Annual Change	Year 1	Year 2	Year 3	Year 4	Year 5
		New Avg. Monthly Bill Per Year				
Residential Users	-1.5%	$ 38.72	$ 38.14	$ 37.56	$ 37.00	$ 36.45
Significant Industrial User 1	51.5%	$ 7,525.74	$ 11,403.08	$ 17,278.05	$ 26,179.88	$ 39,668.00
Significant Industrial User 2	44.6%	$ 1,091.59	$ 1,578.25	$ 2,281.86	$ 3,299.17	$ 4,770.00

COMPARISON of COMMUNITIES

FUTURE RATE ALT. No. 1

	Population	Minimum Fee	Volume Included in Min.	Usage Rate	Average Residential Monthly Bill (700 cf)	Industrial Surcharges BOD	TSS	TKN/NH3-N
Le Mars	9,941	$ 8.51		$ 2.24 per 1000 gal	$ 20.23	$0.196 per lb	$0.254 per lb	$0.868 per lb
Decorah*	7,701	$ 27.32		$ 2.70 per 100 cf	$ 25.73	$0.100 per lb	$0.120 per lb	
Denison	8,337	$ 9.80		$ 3.34 per 1000 gal	$ 27.30			
Spencer **	11,052	$ 9.68	1,000 gals	$ 5.06 per 1000 gal	$ 31.13			
Carroll	10,103	$ 8.45		$ 4.00 per 100 cf	$ 36.45	$0.200 per lb	$0.200 per lb	
Mount Pleasant	8,581	$ 7.50		$ 5.90 per 1000 gal	$ 38.42			
Grimes	12,839	$ -		$ 7.65 per 1000 gal	$ 40.09			
Waverly	10,094	$ 14.43	245 cf	$ 5.89 per 100 cf	$ 41.23			
Pleasant Hill (WRA)	9,871	$ 10.86		$ 6.48 per 1000 gal	$ 44.82			
Webster City	7,732	$ 20.00		$ 3.75 per 100 cf	$ 46.25	$0.580 per lb	$0.270 per lb	$4.600 per lb
Grinnell	9,031	$ 4.51		$ 6.17 per 100 cf	$ 47.70			
Storm Lake	10,558	$ 20.80		$ 3.88 per 100 cf	$ 47.96	$0.470 per lb	$0.370 per lb	$1.770 per lb
Pella	10,231	$ 21.42		$ 5.36 per 1000 gal	$ 49.51			
Keokuk	10,324	$ 30.38	2,000 gal	$ 6.69 per 1000 gal	$ 52.06	0.207 per lb	0.202 per lb	
Fort Madison	10,513	$ 25.50		$ 5.90 per 1000 gal	$ 56.42	$0.800 per lb	$0.840 per lb	$2.520 per lb
Norwalk	10,987	$ 7.50		$10.23 per 1000 gal	$ 61.11			
Fairfield	10,290	$ 19.60		$ 6.47 per 100 cf	$ 64.89	$0.216 per lb	$0.240 per lb	$0.720 per lb
Oskaloosa	11,511	$ 19.15		$ 8.62 per 100 cf	$ 79.49			

FUTURE RATE ALTERNATIVE NO. 2

ALTERNATIVE 2 - Equitable Distribution Based on Flow Usage

Customer Class	Number of Accounts	Minimum Charged	Total Annual Usage for Class (100 cf)	Average Monthly Usage per User (100 cf)	*2025 Requirements* Rate Per 100 cf/ Unit	Average Account Monthly Bill	Approximate Monthly Revenue	Total Annual Revenue	Total Annual Usage (100 cf)	Total Calculated Annual Revenue	Required Total Revenue in 2025
Residential/Commercial User											
Small End Users (Residential)	4,300	$ 8.45	365,000	7	$ 4.80	$ 42.05	$ 180,815	$ 2,169,780	365,000	$ 2,169,780	
Significant Industrial Users											
Significant Industrial User 1											
(Sanitary Waste)	1	$ 8.45	2,320	194	$ 4.80	$ 931.20	$ 931	$ 11,174			
(Process Waste) *(reported in 1,000 gal)*	1		29,000	2,417	$ 2.00	$ 4,834.00	$ 4,834	$ 58,008			
Strength Surcharges			(average lbs)	20,000	$ 0.750	$ 15,000.00	$ 15,000	$ 180,000	34,370	$ 280,202	
Significant Industrial User 2 *(reported in 1,000 gal)*	1	$ 8.45	3,050	255	$ 2.00	$ 510.00	$ 510	$ 6,120			
Strength Surcharges			(average lbs)	2,500	$ 0.750	$ 1,875.00	$ 1,875	$ 22,500			
(Metals Surcharge)							$ 200	$ 2,400			
								TOTALS	399,370	$ 2,449,982	$ 2,500,000

Residential Revenue Percentage	89%
Industrial Revenue Percentage	11%

Change to Average Monthly Bill for Industrial Users

	New	Old	Increase	Percent Increase
Significant Industrial User 1	$ 19,834.00	$ 4,967	$ 14,867.20	299%
Significant Industrial User 2	$ 2,385.00	$ 755.00	$ 1,630.00	216%

FUTURE RATE ALTERNATIVE No. 2

ANNUAL CHANGES

New Rate Per Year

New Unit Rate Annual Change	Annual Change	Year 1	Year 2	Year 3	Year 4	Year 5
Residential Users	1.7%	$ 4.49	$ 4.56	$ 4.64	$ 4.72	$ 4.80
Significant Industrial User *(Process)*	38.0%	$ 0.55	$ 0.76	$ 1.05	$ 1.45	$ 2.00
Significant Industrial User *(Loading Surcharge)*	30.3%	$ 0.26	$ 0.34	$ 0.44	$ 0.58	$ 0.75

New Avg. Monthly Bill Per Year

New Total Monthly Bill Annual Change	Annual Change	Year 1	Year 2	Year 3	Year 4	Year 5
Residential Users	1.4%	$ 39.85	$ 40.38	$ 40.93	$ 41.49	$ 42.05
Significant Industrial User 1	31.9%	$ 6,551.54	$ 8,641.92	$ 11,399.27	$ 15,036.39	$ 19,834.00
Significant Industrial User 2	25.9%	$ 950.29	$ 1,196.09	$ 1,505.47	$ 1,894.87	$ 2,385.00

COMPARISON of COMMUNITIES

FUTURE RATE ALT. No. 2

	Population	Minimum Fee	Volume Included in Min.	Usage Rate	Average Residential Monthly Bill (700 cf)	Industrial Surcharges BOD	TSS	TKN/NH3-N
Le Mars	9,941	$ 8.51		$ 2.24 per 1000 gal	$ 20.23	$0.196 per lb	$0.254 per lb	$0.868 per lb
Decorah*	7,701	$ 27.32		$ 2.70 per 100 cf	$ 25.73	$0.100 per lb	$0.120 per lb	
Denison	8,337	$ 9.80		$ 3.34 per 1000 gal	$ 27.30			
Spencer **	11,052	$ 9.68	1,000 gals	$ 5.06 per 1000 gal	$ 31.13			
Mount Pleasant	8,581	$ 7.50		$ 5.90 per 1000 gal	$ 38.42			
Grimes	12,839	$ -		$ 7.65 per 1000 gal	$ 40.09			
Waverly	10,094	$ 14.43	245 cf	$ 5.89 per 100 cf	$ 41.23			
Carroll	10,103	$ 8.45		$ 4.80 per 100 cf	$ 42.05	$0.200 per lb	$0.200 per lb	
Pleasant Hill (WRA)	9,871	$ 10.86		$ 6.48 per 1000 gal	$ 44.82			
Webster City	7,732	$ 20.00		$ 3.75 per 100 cf	$ 46.25	$0.580 per lb	$0.270 per lb	$4.600 per lb
Grinnell	9,031	$ 4.51		$ 6.17 per 100 cf	$ 47.70			
Storm Lake	10,558	$ 20.80		$ 3.88 per 100 cf	$ 47.96	$0.470 per lb	$0.370 per lb	$1.770 per lb
Pella	10,231	$ 21.42		$ 5.36 per 1000 gal	$ 49.51			
Keokuk	10,324	$ 30.38	2,000 gal	$ 6.69 per 1000 gal	$ 52.06	0.207 per lb	0.202 per lb	
Fort Madison	10,513	$ 25.50		$ 5.90 per 1000 gal	$ 56.42	$0.800 per lb	$0.840 per lb	$2.520 per lb
Norwalk	10,987	$ 7.50		$10.23 per 1000 gal	$ 61.11			
Fairfield	10,290	$ 19.60		$ 6.47 per 100 cf	$ 64.89	$0.216 per lb	$0.240 per lb	$0.720 per lb
Oskaloosa	11,511	$ 19.15		$ 8.62 per 100 cf	$ 79.49			

FUTURE RATE ALTERNATIVE NO. 3

ALTERNATIVE 3 -Equitable Distribution of Increase Only - Residential/Commercial Users 20% Increase

Customer Class	Number of Accounts	Minimum Charged	Total Annual Usage for Class (100 cf)	Average Monthly Usage per User (100 cf)	2025 Requirements: Rate Per 100 cf/ Unit	Average Account Monthly Bill	Approximate Monthly Revenue	Total Annual Revenue	Total Annual Usage (100 cf)	Total Calculated Annual Revenue	Required Total Revenue in 2025	
Residential/Commercial User												Residential Revenue Percentage
Small End Users (Residential)	4,300	$ 8.77	365,000	7	$ 9.28	$ 45.73	$ 196,639	$ 2,359,668	365,000	$ 2,359,668		94%
Significant Industrial Users												Industrial Revenue Percentage
												6%
Significant Industrial User 1 (Sanitary Waste)	1	$ 8.77	2,320	194	$ 9.28	$ 1,024.32	$ 1,024	$ 12,292				
(Process Waste) *reported in 1,000 gal*	1		29,000	2,417	$ 1.30	$ 3,142.10	$ 3,142	$ 37,705				
Strength Surcharges			(average lbs)	20,000	$ 0.300	$ 6,000.00	$ 6,000	$ 72,000	34,370	$ 137,375		
Significant Industrial User 2 *reported in 1,000 gal*	1	$ 8.77	3,050	255	$ 1.30	$ 331.50	$ 332	$ 3,978				
Strength Surcharges			(average lbs)	2,500	$ 0.300	$ 750.00	$ 750	$ 9,000				
(Metals Surcharge)							$ 200	$ 2,400				
								TOTALS	399,370	$ 2,497,043	$ 2,500,000	

Change to Average Monthly Bill for Industrial Users

	New	Old	Increase	Percent Increase
Significant Industrial User 1	$ 9,142.10	$ 4,967	$ 4,175.30	84%
Significant Industrial User 2	$ 1,081.50	$ 755.00	$ 326.50	43%

FUTURE RATE ALTERNATIVE No. 3

ANNUAL CHANGES

New Unit Rate Annual Change	Annual Change	New Rate Per Year Year 1	Year 2	Year 3	Year 4	Year 5
Residential Users	3.7%	$ 4.57	$ 4.74	$ 4.91	$ 5.09	$ 5.28
Significant Industrial User *(Process)*	26.6%	$ 0.51	$ 0.64	$ 0.81	$ 1.03	$ 1.30
Significant Industrial User *(Loading Surcharge)*	8.4%	$ 0.22	$ 0.24	$ 0.26	$ 0.28	$ 0.30

New Total Monthly Bill Annual Change	Annual Change	New Avg. Monthly Bill Per Year Year 1	Year 2	Year 3	Year 4	Year 5
Residential Users	3.1%	$ 40.77	$ 41.95	$ 43.16	$ 44.42	$ 45.73
Significant Industrial User 1	13.0%	$ 5,611.39	$ 6,339.64	$ 7,162.39	$ 8,091.93	$ 9,142.10
Significant Industrial User 2	7.5%	$ 811.27	$ 871.72	$ 936.69	$ 1,006.49	$ 1,081.50

COMPARISON of COMMUNITIES

FUTURE RATE ALT. No. 3

	Population	Minimum Fee	Volume Included in Min.	Usage Rate	Average Residential Monthly Bill (700 cf)	Industrial Surcharges BOD	TSS	TKN/NH3-N
Le Mars	9,941	$ 8.51		$ 2.24 per 1000 gal	$ 20.23	$0.196 per lb	$0.254 per lb	$0.868 per lb
Decorah*	7,701	$ 27.32		$ 2.70 per 100 cf	$ 25.73	$0.100 per lb	$0.120 per lb	
Denison	8,337	$ 9.80		$ 3.34 per 1000 gal	$ 27.30			
Spencer **	11,052	$ 9.68	1,000 gals	$ 5.06 per 1000 gal	$ 31.13			
Mount Pleasant	8,581	$ 7.50		$ 5.90 per 1000 gal	$ 38.42			
Grimes	12,839	$ -		$ 7.65 per 1000 gal	$ 40.09			
Waverly	10,094	$ 14.43	245 cf	$ 5.89 per 100 cf	$ 41.23			
Pleasant Hill (WRA)	9,871	$ 10.86		$ 6.48 per 1000 gal	$ 44.82			
Carroll	10,103	$ 8.77		$ 5.28 per 100 cf	$ 45.73	$0.200 per lb	$0.200 per lb	
Webster City	7,732	$ 20.00		$ 3.75 per 100 cf	$ 46.25	$0.580 per lb	$0.270 per lb	$4.600 per lb
Grinnell	9,031	$ 4.51		$ 6.17 per 100 cf	$ 47.70			
Storm Lake	10,558	$ 20.80		$ 3.88 per 100 cf	$ 47.96	$0.470 per lb	$0.370 per lb	$1.770 per lb
Pella	10,231	$ 21.42		$ 5.36 per 1000 gal	$ 49.51			
Keokuk	10,324	$ 30.38	2,000 gal	$ 6.69 per 1000 gal	$ 52.06	0.207 per lb	0.202 per lb	
Fort Madison	10,513	$ 25.50		$ 5.90 per 1000 gal	$ 56.42	$0.800 per lb	$0.840 per lb	$2.520 per lb
Norwalk	10,987	$ 7.50		$10.23 per 1000 gal	$ 61.11			
Fairfield	10,290	$ 19.60		$ 6.47 per 100 cf	$ 64.89	$0.216 per lb	$0.240 per lb	$0.720 per lb
Oskaloosa	11,511	$ 19.15		$ 8.62 per 100 cf	$ 79.49			

FUTURE RATE ALTERNATIVE NO. 3a

ALTERNATIVE 3a -Equitable Distribution of Increase Only - Residential/Commercial Users 4% Annual Increase

Customer Class	Number of Accounts	Minimum Charged	Total Annual Usage for Class (100 cf)	Average Monthly Usage per User (100 cf)	2025 Requirements: Rate Per 100 cf/ Unit	Average Account Monthly Bill	Approximate Monthly Revenue	Total Annual Revenue	Total Annual Usage (100 cf)	Total Calculated Annual Revenue	Required Total Revenue in 2025	
Residential/Commercial User												Residential Revenue Percentage
Small End Users (Residential)	4,300	$ 8.77	365,000	7	$ 5.36	$ 46.29	$ 199,047	$ 2,388,564	365,000	$ 2,388,564		95%
Significant Industrial Users												Industrial Revenue Percentage
Significant Industrial User 1												5%
(Sanitary Waste)	1	$ 8.77	2,320	194	$ 5.36	$ 1,019.84	$ 1,040	$ 12,478				
(Process Waste) *(reported in 1,000 gal)*	1		29,000	2,417	$ 1.10	$ 2,658.70	$ 2,659	$ 31,904				
Strength Surcharges			(average lbs)	20,000	$ 0.250	$ 5,000.00	$ 5,000	$ 60,000	34,370	$ 117,648		
Significant Industrial User 2 *(reported in 1,000 gal)*	1	$ 8.77	3,050	255	$ 1.10	$ 280.50	$ 281	$ 3,366				
Strength Surcharges			(average lbs)	2,500	$ 0.250	$ 625.00	$ 625	$ 7,500				
(Metals Surcharge)							$ 200	$ 2,400				
								TOTALS	399,370	$ 2,506,212	$ 2,500,000	

Change to Average Monthly Bill for Industrial Users

	New	Old	Increase	Percent Increase
Significant Industrial User 1	$ 7,658.70	$ 4,967	$ 2,691.90	54%
Significant Industrial User 2	$ 905.50	$ 755.00	$ 150.50	20%

FUTURE RATE ALTERNATIVE No. 3a

ANNUAL CHANGES

New Unit Rate Annual Change	Annual Change	Year 1	Year 2	Year 3	Year 4	Year 5
		New Rate Per Year				
Residential Users	4.0%	$ 4.59	$ 4.77	$ 4.96	$ 5.15	$ 5.36
Significant Industrial User *(Process)*	22.4%	$ 0.49	$ 0.60	$ 0.73	$ 0.90	$ 1.10
Significant Industrial User *(Loading Surcharge)*	4.6%	$ 0.21	$ 0.22	$ 0.23	$ 0.24	$ 0.25

New Total Monthly Bill Annual Change	Annual Change	Year 1	Year 2	Year 3	Year 4	Year 5
		New Avg. Monthly Bill Per Year				
Residential Users	3.3%	$ 40.87	$ 42.15	$ 43.47	$ 44.85	$ 46.29
Significant Industrial User 1	9.0%	$ 5,416.17	$ 5,906.20	$ 6,440.56	$ 7,023.27	$ 7,658.70
Significant Industrial User 2	3.7%	$ 782.95	$ 811.94	$ 842.00	$ 873.17	$ 905.50

COMPARISON of COMMUNITIES

FUTURE RATE ALT. No. 3a

	Population	Minimum Fee	Volume Included in Min.	Usage Rate	Average Residential Monthly Bill (700 cf)	Industrial Surcharges BOD	TSS	TKN/NH3-N
Le Mars	9,941	$ 8.51		$ 2.24 per 1000 gal	$ 20.23	$ 0.196 per lb	$ 0.254 per lb	$ 0.868 per lb
Decorah*	7,701	$ 27.32		$ 2.70 per 100 cf	$ 25.73	$ 0.100 per lb	$ 0.120 per lb	
Denison	8,337	$ 9.80		$ 3.34 per 1000 gal	$ 27.30			
Spencer **	11,052	$ 9.68	1,000 gals	$ 5.06 per 1000 gal	$ 31.13			
Mount Pleasant	8,581	$ 7.50		$ 5.90 per 1000 gal	$ 38.42			
Grimes	12,839	$ -		$ 7.65 per 1000 gal	$ 40.09			
Waverly	10,094	$ 14.43	245 cf	$ 5.89 per 100 cf	$ 41.23			
Pleasant Hill (WRA)	9,871	$ 10.86		$ 6.48 per 1000 gal	$ 44.82			
Webster City	7,732	$ 20.00		$ 3.75 per 100 cf	$ 46.25	$ 0.580 per lb	$ 0.270 per lb	$ 4.600 per lb
Carroll	10,103	$ 8.77		$ 5.36 per 100 cf	$ 46.29	$ 0.200 per lb	$ 0.200 per lb	
Grinnell	9,031	$ 4.51		$ 6.17 per 100 cf	$ 47.70			
Storm Lake	10,558	$ 20.80		$ 3.88 per 100 cf	$ 47.96	$ 0.470 per lb	$ 0.370 per lb	$ 1.770 per lb
Pella	10,231	$ 21.42		$ 5.36 per 1000 gal	$ 49.51			
Keokuk	10,324	$ 30.38	2,000 gal	$ 6.69 per 1000 gal	$ 52.06	0.207 per lb	0.202 per lb	
Fort Madison	10,513	$ 25.50		$ 5.90 per 1000 gal	$ 56.42	$ 0.800 per lb	$ 0.840 per lb	$ 2.520 per lb
Norwalk	10,987	$ 7.50		$ 10.23 per 1000 gal	$ 61.11			
Fairfield	10,290	$ 19.60		$ 6.47 per 100 cf	$ 64.89	$ 0.216 per lb	$ 0.240 per lb	$ 0.720 per lb
Oskaloosa	11,511	$ 19.15		$ 8.62 per 100 cf	$ 79.49			

FUTURE RATE ALTERNATIVE NO. 4

ALTERNATIVE 4 -Equitable Distribution of Increase Only - Residential/Commercial Users 25% Increase

Customer Class	Number of Accounts	Minimum Charged	Total Annual Usage for Class (100 cf)	Average Monthly Usage per User (100 cf)	2025 Requirements: Rate Per 100 cf/ Unit	Average Account Monthly Bill	Approximate Monthly Revenue	Total Annual Revenue	Total Annual Usage (100 cf)	Total Calculated Annual Revenue	Required Total Revenue in 2025
Residential/Commercial User											
Small End Users (Residential)	4,300	$ 8.85	365,000	7	$ 5.50	$ 47.35	$ 203,605	$ 2,443,260	865,000	$ 2,443,260	
Significant Industrial Users											
Significant Industrial User 1											
(Sanitary Waste)	1	$ 8.85	2,320	194	$ 5.50	$ 1,067.00	$ 1,067	$ 12,804			
(Process Waste) *prepaid in 1,000 gal*	1		29,000	2,417	$ 1.00	$ 2,417.00	$ 2,417	$ 29,004			
Strength Surcharges			(average lbs)	20,000	$ 0.250	$ 5,000.00	$ 5,000	$ 60,000	34,370	$ 114,768	
Significant Industrial User 2 *prepaid in 1,000 gal*	1	$ 8.85	3,050	255	$ 1.00	$ 255.00	$ 255	$ 3,060			
Strength Surcharges			(average lbs)	2,500	$ 0.250	$ 625.00	$ 625	$ 7,500			
(Metals Surcharge)							$ 200	$ 2,400			
								TOTALS	899,370	$ 2,558,028	$ 2,500,000

Residential Revenue Percentage: 96%

Industrial Revenue Percentage: 4%

Change to Average Monthly Bill for Industrial Users

	New	Old	Increase	Percent Increase
Significant Industrial User 1	$ 7,417.00	$ 4,967	$ 2,450.20	49%
Significant Industrial User 2	$ 880.00	$ 755.00	$ 125.00	17%

FUTURE RATE ALTERNATIVE No. 4

ANNUAL CHANGES

New Unit Rate Annual Change	Annual Change	New Rate Per Year Year 1	Year 2	Year 3	Year 4	Year 5
Residential Users	4.5%	$ 4.61	$ 4.82	$ 5.03	$ 5.26	$ 5.50
Significant Industrial User *(Process)*	20.1%	$ 0.48	$ 0.58	$ 0.69	$ 0.83	$ 1.00
Significant Industrial User *(Loading Surcharge)*	4.6%	$ 0.21	$ 0.22	$ 0.23	$ 0.24	$ 0.25

New Total Monthly Bill Annual Change	Annual Change	New Avg. Monthly Bill Per Year Year 1	Year 2	Year 3	Year 4	Year 5
Residential Users	3.8%	$ 41.11	$ 42.57	$ 44.09	$ 45.69	$ 47.35
Significant Industrial User 1	8.4%	$ 5,381.55	$ 5,830.92	$ 6,317.83	$ 6,845.39	$ 7,417.00
Significant Industrial User 2	3.1%	$ 778.49	$ 802.71	$ 827.69	$ 853.44	$ 880.00

COMPARISON of COMMUNITIES

FUTURE RATE ALT. No. 4

	Population	Minimum Fee	Volume Included in Min.	Usage Rate	Average Residential Monthly Bill (700 cf)	Industrial Surcharges BOD	TSS	TKN/NH3-N
Le Mars	9,941	$ 8.51		$ 2.24 per 1000 gal	$ 20.23	$0.196 per lb	$0.254 per lb	$0.868 per lb
Decorah*	7,701	$ 27.32		$ 2.70 per 100 cf	$ 25.73	$0.100 per lb	$0.120 per lb	
Denison	8,337	$ 9.80		$ 3.34 per 1000 gal	$ 27.30			
Spencer **	11,052	$ 9.68	1,000 gals	$ 5.06 per 1000 gal	$ 31.13			
Mount Pleasant	8,581	$ 7.50		$ 5.90 per 1000 gal	$ 38.42			
Grimes	12,839	$ -		$ 7.65 per 1000 gal	$ 40.09			
Waverly	10,094	$ 14.43	245 cf	$ 5.89 per 100 cf	$ 41.23			
Pleasant Hill (WRA)	9,871	$ 10.86		$ 6.48 per 1000 gal	$ 44.82			
Webster City	7,732	$ 20.00		$ 3.75 per 100 cf	$ 46.25	$0.580 per lb	$0.270 per lb	$4.600 per lb
Carroll	10,103	$ 8.85		$ 5.50 per 100 cf	$ 47.35	$0.200 per lb	$0.200 per lb	
Grinnell	9,031	$ 4.51		$ 6.17 per 100 cf	$ 47.70			
Storm Lake	10,558	$ 20.80		$ 3.88 per 100 cf	$ 47.96	$0.470 per lb	$0.370 per lb	$1.770 per lb
Pella	10,231	$ 21.42		$ 5.36 per 1000 gal	$ 49.51			
Keokuk	10,324	$ 30.38	2,000 gal	$ 6.69 per 1000 gal	$ 52.06	0.207 per lb	0.202 per lb	
Fort Madison	10,513	$ 25.50		$ 5.90 per 1000 gal	$ 56.42	$0.800 per lb	$0.840 per lb	$2.520 per lb
Norwalk	10,987	$ 7.50		$ 10.23 per 1000 gal	$ 61.11			
Fairfield	10,290	$ 19.60		$ 6.47 per 100 cf	$ 64.89	$0.216 per lb	$0.240 per lb	$0.720 per lb
Oskaloosa	11,511	$ 19.15		$ 8.62 per 100 cf	$ 79.49			

SUMMARY

(FROM PREVIOUS FUTURE FUNDING REQUIREMENTS)

				Equitable - Organic Usage %	Equitable - Hydraulic Usage %	Increase Residential 20%	Increase Residential 4% Annually	Increase Residential 25%
Customer Class	**Percent Usage (Volume - Hydraulic)**	**Percent Usage (Organic Loading)**	**Existing Rate Structure Percent Revenue**	**Alternate No. 1 Percent Revenue**	**Alternate No. 2 Percent Revenue**	**Alternate No. 3 Percent Revenue**	**Alternate No. 3 a Percent Revenue**	**Alternate No. 4 Percent Revenue**
Residential/ Commercial Users	90%	75%	96%	78%	89%	94%	95%	96%
Significant Industrial Users	10%	25%	4%	22%	11%	6%	5%	4%
Average Residential/ Commercial User Monthly Bill	---	---	$39.32	$36.45	$42.05	$45.73	$46.29	$47.35
Average SIU 1 Monthly Bill	---	---	$4,967	$39,668	$19,834	$9,142	$7,659	$7,417
Average SIU21 Monthly Bill	---	---	$755	$4,770	$2,385	$1,082	$906	$880

SUMMARY

(FROM PREVIOUS FUTURE FUNDING REQUIREMENTS)

New Total Monthly Bill - Annual Change		Alt. 1	Alt. 2	Alt. 3	Alt. 3a	Alt. 4
Residential Users (Annual % Change)		-1.5%	1.4%	3.1%	3.3%	3.8%
	Year 1	$ 38.72	$ 39.85	$ 40.77	$ 40.87	$ 41.11
	Year 2	$ 38.14	$ 40.38	$ 41.95	$ 42.15	$ 42.57
	Year 3	$ 37.56	$ 40.93	$ 43.16	$ 43.47	$ 44.09
	Year 4	$ 37.00	$ 41.49	$ 44.42	$ 44.85	$ 45.69
	Year 5	**$ 36.45**	**$ 42.05**	**$ 45.73**	**$ 46.29**	**$ 47.35**
Significant Industrial User 1 (Annual % Change)		51.5%	31.9%	13.0%	9.0%	8.4%
	Year 1	$ 7,525.74	$ 6,551.54	$ 5,611.39	$ 5,416.17	$ 5,381.55
	Year 2	$ 11,403.08	$ 8,641.92	$ 6,339.64	$ 5,906.20	$ 5,830.92
	Year 3	$ 17,278.05	$ 11,399.27	$ 7,162.39	$ 6,440.56	$ 6,317.83
	Year 4	$ 26,179.88	$ 15,036.39	$ 8,091.93	$ 7,023.27	$ 6,845.39
	Year 5	**$ 39,668.00**	**$ 19,834.00**	**$ 9,142.10**	**$ 7,658.70**	**$ 7,417.00**
Significant Industrial User 2 (Annual % Change)		44.6%	25.9%	7.5%	3.7%	3.1%
	Year 1	$ 1,091.59	$ 950.29	$ 811.27	$ 782.95	$ 778.49
	Year 2	$ 1,578.25	$ 1,196.09	$ 871.72	$ 811.94	$ 802.71
	Year 3	$ 2,281.86	$ 1,505.47	$ 936.69	$ 842.00	$ 827.69
	Year 4	$ 3,299.17	$ 1,894.87	$ 1,006.49	$ 873.17	$ 853.44
	Year 5	**$ 4,770.00**	**$ 2,385.00**	**$ 1,081.50**	**$ 905.50**	**$ 880.00**

PROJECTION OF FUTURE EXPENSES

(NEW CONSIDERATIONS)

CIP PROJECTS:

CIP Project	FY 19	FY 20	FY 21	FY 22	FY 23	TOTAL
Sanitary Sewer Infrastructure-JetVac Equipment Purchase	$481,000	$-	$-	$-	$-	$481,000
WWTP Improvements – UV Disinfection	$1,046,000	$-	$-	$-	$-	$1,046,000
WWTF Improvements – Nutrient Reduction	$-	$-	$100,000	$1,350,000	$-	$1,450,000
WWTF Improvements – Copper Compliance	$100,000	$100,000	$100,000	$900,000	$-	$1,200,000
ANNUAL TOTAL	$1,627,000	$100,000	$200,000	$2,250,000	$-	$4,177,000

*Assume $2,000,000 is available from Sanitary Sewer Fund to offset $4,177,000 total, and reduce future need to $2,177,000. This translates to an added average additional annual expense of $435,500.

PROJECTION OF FUTURE EXPENSES

(NEW CONSIDERATIONS)

5 – Year Funding Projection

Expense Category	Average Historical Expense	Planned Annual % Increase	Average Planned Annual Increase	Projected Future Expense (in 2021)	Projected Future Expense (in 2026)
Labor & Administration	$442,081	4%	$19,000	$459,764	$537,859
Services & Commodities	$239,235	6%	$16,000	$253,589	$320,150
Capital Outlay	$175,601*	5%	$10,000	$184,381	$224,116
Debt Servicing	$687,448	1%	$7,000	$699,300	$727,400**
Transfers to CIP and Depreciation Funds	$201,692	---	$435,500	$640,000	$640,000
Total Annual Expenses	$1,746,057		$487,500	$2,237,034	$2,449,525

*Capital Outlay average is taken through FY18/19, as FY19/20 includes significant CIP funding which is analyzed as "Transfers To" for future projections.

**For the purpose of this Study, funding for Debt Servicing is projected to be expended for sanitary sewer rehabilitation following completion of debt payment in FY 2024-2025.

PROJECTION OF FUTURE EXPENSES

(NEW CONSIDERATIONS)

10 – Year Funding Projection

Expense Category	Average Historical Expense	Planned Annual % Increase	Average Planned Annual Increase	Projected Future Expense (in 2021)	Projected Future Expense (in 2031)
Labor & Administration	$442,081	4%	$21,000	$459,764	$654,388
Services & Commodities	$239,235	6%	$19,000	$253,589	$428,433
Capital Outlay	$175,601*	5%	$11,000	$184,381	$286,036
Debt Servicing	$687,448	1%	$7,000	$699,300	$735,400
Transfers to CIP and Depreciation Funds	$201,692	---	$218,000	$420,000	$420,000
Total Annual Expenses	$1,746,057		$276,000	$2,017,034	$2,524,256

*Capital Outlay average is taken through FY18/19, as FY19/20 includes significant CIP funding which is analyzed as "Transfers To" for future projections.

**For the purpose of this Study, funding for Debt Servicing is projected to be expended for sanitary sewer rehabilitation following completion of debt payment in FY 2024-2025.

POTENTIAL CHANGES TO RATE STRUCTURE

(NEW CONSIDERATIONS)

3a) **Increase the residential rates by 4% annually for 5 years**, increase industrial customer class accordingly to achieve required revenue;

5.05) Utilizing updated CIP projections and Sewer Reserve Funding; **Increase the residential rates by 3.5% annually for 5 years**, increase industrial customer class accordingly to achieve required revenue;

5.10) Utilizing updated CIP projections and Sewer Reserve Funding; **Increase the residential rates by 2% annually for 10 years**, increase industrial customer class accordingly to achieve required revenue;

FUTURE RATE ALTERNATIVE NO. 5.05

ALTERNATIVE 5.05 - Equitable Distribution of Increase Only - Residential/Commercial Users 3.5% Annual Increase - Financed over 5 Years

Customer Class	Number of Accounts	Minimum Charged	Total Annual Usage for Class (100 cf)	Average Monthly Usage per User (100 cf)	*2026 Requirements* Rate Per 100 cf/ Unit	Average Account Monthly Bill	Approximate Monthly Revenue	Total Annual Revenue	Total Annual Usage (100 cf)	Total Calculated Annual Revenue	Required Total Revenue in 2026	
Residential/Commercial User												Residential Revenue Percentage
Small End Users (Residential)	4,300	$ 8.77	365,000	7	$ 5.23	$ 45.38	$ 195,134	$ 2,341,608	365,000	$ 2,341,608		95%
Significant Industrial Users												Industrial Revenue Percentage
Significant Industrial User 1												5%
(Sanitary Waste)	1	$ 8.77	2,320	194	$ 5.23	$ 1,014.62	$ 1,015	$ 12,175				
(Process Waste) (equivalent in 2,000 gal)	1		29,000	2,417	$ 1.00	$ 2,417.00	$ 2,417	$ 29,004				
Strength Surcharges			(average lbs)	20,000	$ 0.250	$ 5,000.00	$ 5,000	$ 60,000	34,370	$ 114,139		
Significant Industrial User 2 (equivalent in 2,000 gal)	1	$ 8.77	3,050	255	$ 1.00	$ 255.00	$ 255	$ 3,060				
Strength Surcharges			(average lbs)	2,500	$ 0.250	$ 625.00	$ 625	$ 7,500				
(Metals Surcharge)							$ 200	$ 2,400				
								TOTALS	399,370	$ 2,455,747	$ 2,450,000	

Change to Average Monthly Bill for Industrial Users

	New	Old	Increase	Percent Increase
Significant Industrial User 1	$ 7,417.00	$ 4,967	$ 2,450.20	49%
Significant Industrial User 2	$ 880.00	$ 755.00	$ 125.00	17%

FUTURE RATE ALTERNATIVE No. 5.05

ANNUAL CHANGES

New Rate Per Year

New Unit Rate Annual Change	Annual Change	Year 1	Year 2	Year 3	Year 4	Year 5
Residential Users	3.5%	$ 4.56	$ 4.72	$ 4.89	$ 5.05	$ 5.23
Significant Industrial User *(Process)*	20.1%	$ 0.48	$ 0.58	$ 0.69	$ 0.83	$ 1.00
Significant Industrial User *(Loading Surcharge)*	4.6%	$ 0.21	$ 0.22	$ 0.23	$ 0.24	$ 0.25

New Avg. Monthly Bill Per Year

New Total Monthly Bill Annual Change	Annual Change	Year 1	Year 2	Year 3	Year 4	Year 5
Residential Users	2.9%	$ 40.71	$ 41.82	$ 42.97	$ 44.15	$ 45.38
Significant Industrial User 1	8.4%	$ 5,381.55	$ 5,830.92	$ 6,317.83	$ 6,845.39	$ 7,417.00
Significant Industrial User 2	3.1%	$ 778.49	$ 802.71	$ 827.69	$ 853.44	$ 880.00

FUTURE RATE ALTERNATIVE NO. 5.10

ALTERNATIVE 5.10 - Equitable Distribution of Increase Only - Residential/Commercial Users 2% Annual Increase - Financed over 10 Years

Customer Class	Number of Accounts	Minimum Charged	Total Annual Usage for Class (100 cf)	Average Monthly Usage per User (100 cf)	2031 Requirements: Rate Per 100 cf/ Unit	Average Account Monthly Bill	Approximate Monthly Revenue	Total Annual Revenue	Total Annual Usage (100 cf)	Total Calculated Annual Revenue	Required Total Revenue In 2031	
Residential/Commercial User												Residential Revenue Percentage
Small End Users (Residential)	4,300	$ 8.77	365,000	7	$ 5.37	$ 46.36	$ 199,348	$ 2,392,176	365,000	$ 2,392,176		95%
Significant Industrial Users												Industrial Revenue Percentage
Significant Industrial User 1												5%
(Sanitary Waste)	1	$ 8.77	2,320	194	$ 5.37	$ 1,041.78	$ 1,042	$ 12,501				
(Process Waste) *Proportion in 1,000 ppl*	1		29,000	2,417	$ 1.15	$ 2,779.55	$ 2,780	$ 33,355				
Strength Surcharges			(average lbs)	20,000	$ 0.300	$ 6,000.00	$ 6,000	$ 72,000	34,870	$ 182,775		
Significant Industrial User 2 *Proportion in 1,000 ppl*	1	$ 8.77	3,050	255	$ 1.15	$ 293.25	$ 293	$ 3,519				
Strength Surcharges			(average lbs)	2,500	$ 0.300	$ 750.00	$ 750	$ 9,000				
(Metals Surcharge)							$ 200	$ 2,400				
								TOTALS	399,870	$ 2,524,951	$ 2,525,000	

Change to Average Monthly Bill for Industrial Users

	New	Old	Increase	Percent Increase
Significant Industrial User 1	$ 8,779.55	$ 4,967	$ 3,812.75	77%
Significant Industrial User 2	$ 1,043.25	$ 755.00	$ 288.25	38%

FUTURE RATE ALTERNATIVE No. 5.10

ANNUAL CHANGES

New Rate Per Year

New Unit Rate Annual Change	Annual Change	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Residential Users	**2.0%**	$ 4.50	$ 4.59	$ 4.68	$ 4.77	$ 4.87	$ 4.96	$ 5.06	$ 5.16	$ 5.27	$ 5.37
Significant Industrial User *(Process)*	**11.1%**	$ 0.44	$ 0.49	$ 0.55	$ 0.61	$ 0.68	$ 0.75	$ 0.84	$ 0.93	$ 1.03	$ 1.15
Significant Industrial User *(Loading Surcharge)*	**4.1%**	$ 0.21	$ 0.22	$ 0.23	$ 0.24	$ 0.24	$ 0.26	$ 0.27	$ 0.28	$ 0.29	$ 0.30

New Avg. Monthly Bill Per Year

New Total Monthly Bill Annual Change	Annual Change	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Residential Users	**1.7%**	$ 40.25	$ 40.88	$ 41.52	$ 42.17	$ 42.83	$ 43.51	$ 44.20	$ 44.91	$ 45.63	**$ 46.36**
Significant Industrial User 1	**5.9%**	$5,257.95	$5,566.16	$5,892.44	$6,237.85	$6,603.50	$6,990.59	$7,400.37	$7,834.17	$8,293.40	**$ 8,779.55**
Significant Industrial User 2	**3.3%**	$ 779.81	$ 805.44	$ 831.92	$ 859.26	$ 887.50	$ 916.67	$ 946.80	$ 977.91	$1,010.05	**$ 1,043.25**

SUMMARY

(FOR ALT. 3a, 5.05 & 5.10)

New Total Monthly Bill - Annual Change	Alt. 3a	Alt. 5.05	Alt. 5.10			
Residential Users (Annual % Change)	3.3%	2.9%	1.7%			
Year 1	$ 40.87	$ 40.71	Year 1	$ 40.25	Year 6	$ 43.51
Year 2	$ 42.15	$ 41.82	Year 2	$ 40.88	Year 7	$ 44.20
Year 3	$ 43.47	$ 42.97	Year 3	$ 41.52	Year 8	$ 44.91
Year 4	$ 44.85	$ 44.15	Year 4	$ 42.17	Year 9	$ 45.63
Year 5	**$ 46.29**	**$ 45.38**	Year 5	$ 42.83	**Year 10**	**$ 46.36**
Significant Industrial User 1 (Annual % Change)	9.0%	8.4%	5.9%			
Year 1	$ 5,416.17	$ 5,381.55	Year 1	$ 5,257.95	Year 6	$ 6,990.59
Year 2	$ 5,906.20	$ 5,830.92	Year 2	$ 5,566.16	Year 7	$ 7,400.37
Year 3	$ 6,440.56	$ 6,317.83	Year 3	$ 5,892.44	Year 8	$ 7,834.17
Year 4	$ 7,023.27	$ 6,845.39	Year 4	$ 6,237.85	Year 9	$ 8,293.40
Year 5	**$ 7,658.70**	**$ 7,417.00**	Year 5	**$ 6,603.50**	**Year 10**	**$ 8,779.55**
Significant Industrial User 2 (Annual % Change)	3.7%	3.1%	3.3%			
Year 1	$ 782.95	$ 778.49	Year 1	$ 779.81	Year 6	$ 916.67
Year 2	$ 811.94	$ 802.71	Year 2	$ 805.44	Year 7	$ 946.80
Year 3	$ 842.00	$ 827.69	Year 3	$ 831.92	Year 8	$ 977.91
Year 4	$ 873.17	$ 853.44	Year 4	$ 859.26	Year 9	$ 1,010.05
Year 5	**$ 905.50**	**$ 880.00**	Year 5	**$ 887.50**	**Year 10**	**$ 1,043.25**

QUESTIONS?

VEENSTRA & KIMM, INC.

JUNE 2021