



City of Homer Agenda

City Council Worksession
Monday, May 13, 2019 at 4:00 PM
City Hall Cowles Council Chambers

CALL TO ORDER, 4:00 P.M.

AGENDA APPROVAL

CITY WATER 101

WATER AND SEWER RATE REVIEW

Water Sewer Presentation

Memorandum from Finance Director re: Water Sewer Rate Model

Water Sewer Rate Model 2019

COMMENTS OF THE AUDIENCE

ADJOURNMENT, NO LATER THAN 4:50 P.M.

Next Regular Meeting is Tuesday, May 28, 2019 at 6:00 p.m., Worksession at 4:00 p.m., Committee of the Whole at 5:00 p.m. All meetings scheduled to be held in the City Hall Cowles Council Chambers located at 491 E. Pioneer Avenue, Homer, Alaska

Revenues & Expenses - Utility Fund

	<u>FY 18 Budget</u>	<u>FY 18 Actual</u> ¹	<u>FY 19 Budget</u>
Water			
Meter Sales	1,900,570	1,851,709	1,959,352
Other Revenue	45,169	86,762	56,949
Hydrant Transfer	92,222	92,222	100,350
<u>Water Fund - Total Revenue</u>	<u>2,037,962</u>	<u>2,030,693</u>	<u>2,116,651</u>
Salaries, Wages & Benefits ²	904,776	937,022	936,692
Maintenance & Operations ³	979,105	951,802	1,033,645
Transfers to:			
Reserves	136,214	136,214	119,252
Other	17,867	17,867	27,062
<u>Water Fund - Total Expenses</u>	<u>2,037,962</u>	<u>2,042,906</u>	<u>2,116,651</u>
<u>Revenues over Expenses</u>	<u>-</u>	<u>(12,212)</u>	<u>-</u>
Sewer			
Meter Sales	1,754,415	1,755,264	1,681,475
Other Revenue	43,266	44,648	40,539
<u>Sewer Fund - Total Revenue</u>	<u>1,797,681</u>	<u>1,799,912</u>	<u>1,722,014</u>
Salaries, Wages & Benefits ²	741,884	751,280	765,138
Maintenance & Operations ³	735,599	726,095	768,805
Transfers to:			
Reserves	294,667	294,667	155,164
Other	25,531	25,531	32,907
<u>Sewer Fund - Total Expenses</u>	<u>1,797,681</u>	<u>1,797,574</u>	<u>1,722,014</u>
<u>Revenues over Expenses</u>	<u>0</u>	<u>2,338</u>	<u>(0)</u>
<u>Utility Fund Total</u>	<u>0</u>	<u>(9,874)</u>	<u>(0)</u>

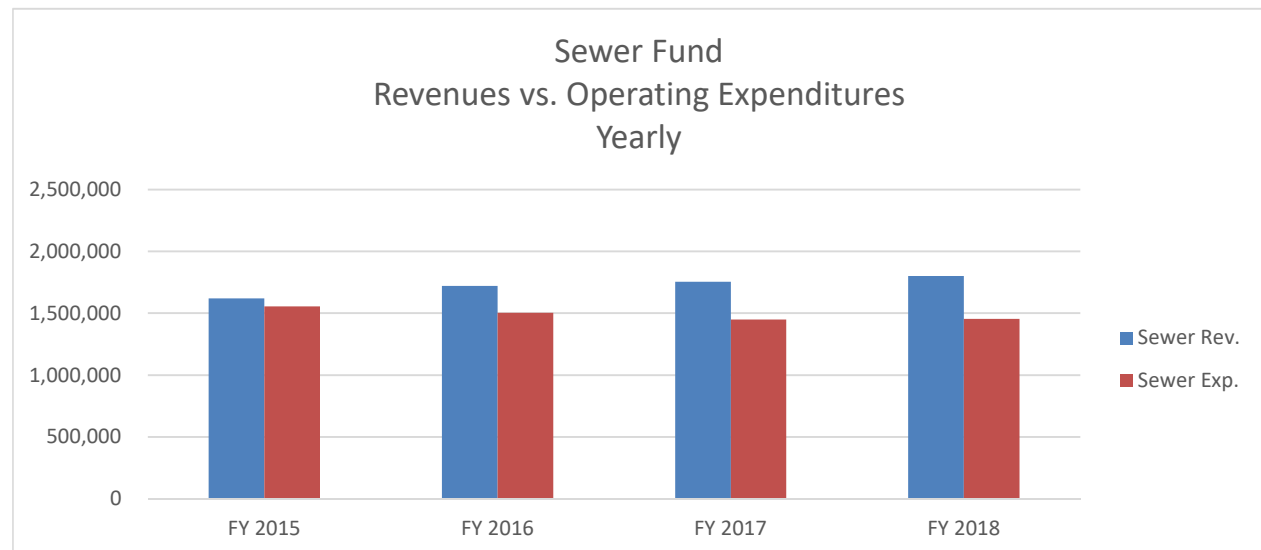
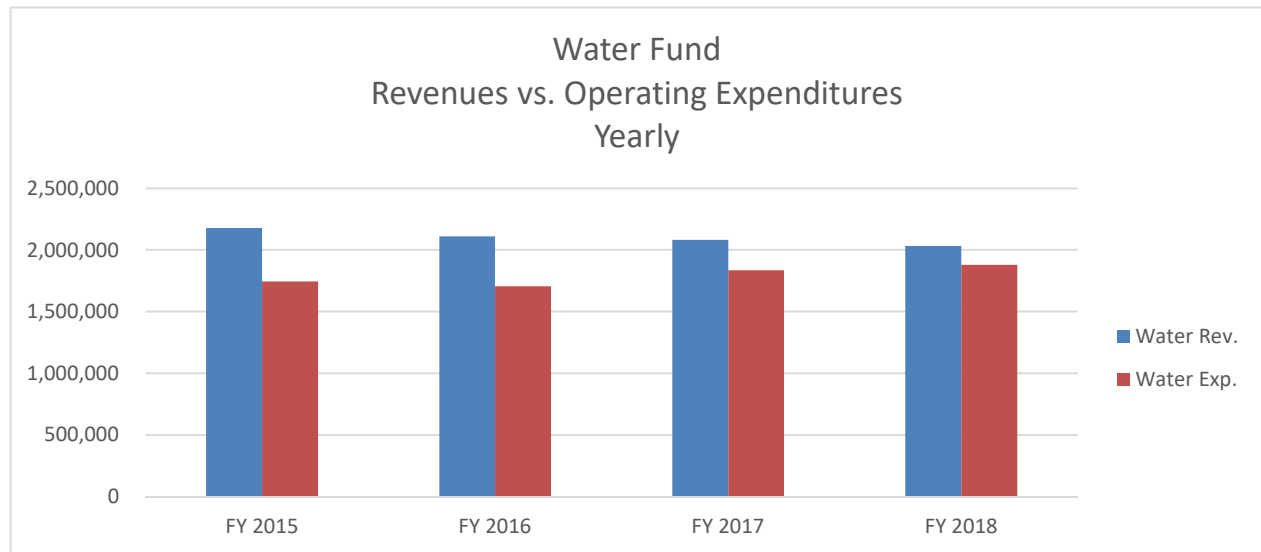
¹ Unaudited (Independent Audit will be finalized by the end of July, 2019)

² Includes leave cash out

³ Includes GF admin fees (overhead costs)

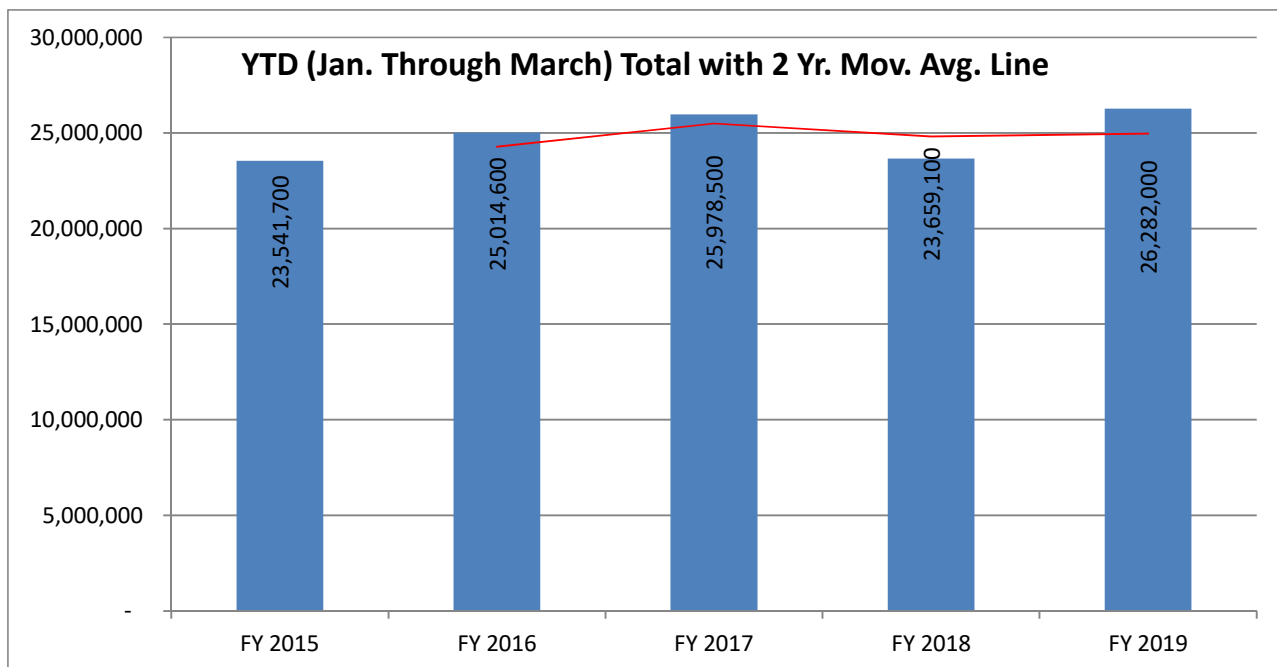
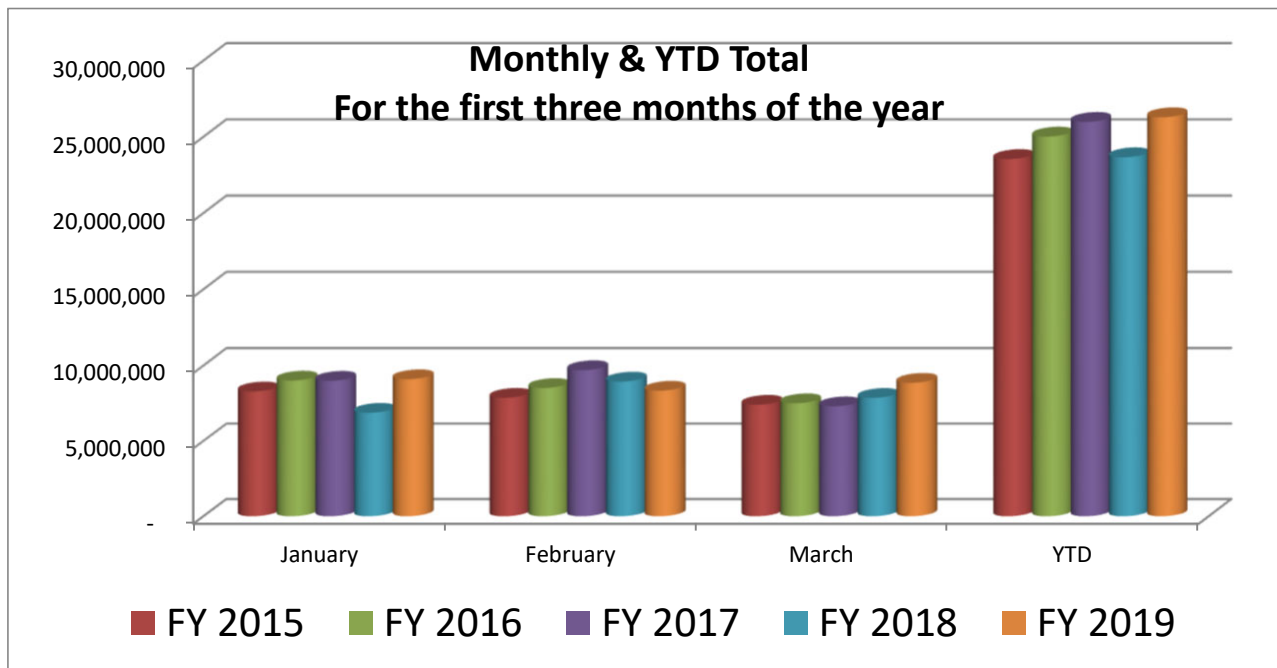
Yearly Comparison: Revenues vs. Expenditures (Unaudited)

	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>
Water Fund Revenues	2,178,018	2,108,835	2,081,823	2,030,693
Water Fund Expenditures (excluding transfer to reserves)	1,744,744	1,704,623	1,835,757	1,878,531
<u>Water: Revenues over (Under) Expenditures</u>	433,273	404,212	246,067	152,162
Sewer Fund Revenues	1,618,595	1,719,555	1,753,457	1,799,912
Sewer Fund Expenditures (excluding transfer to reserves)	1,555,044	1,503,397	1,447,921	1,455,047
<u>Sewer: Revenues over (Under) Expenditures</u>	63,550	216,158	305,536	344,864
<u>Water & Sewer: Total Revenues Over (Under) Expenditures</u>	496,824	620,370	551,602	497,026



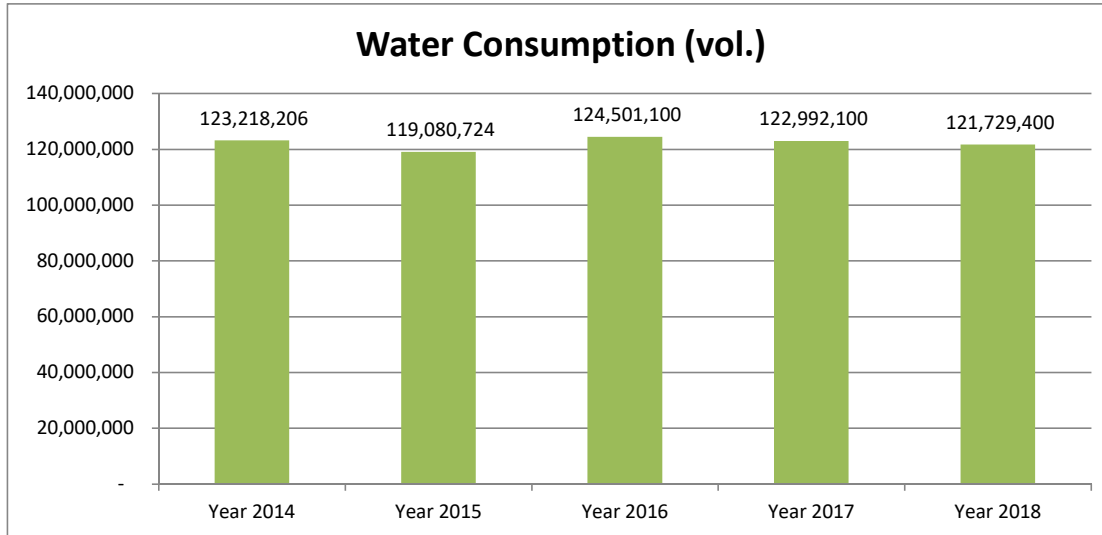
Water Consumption (Gallons)

<u>Yr.\Mo.</u>	<u>January</u>	<u>February</u>	<u>March</u>	<u>YTD</u>
FY 2015	8,280,300	7,862,200	7,399,200	23,541,700
FY 2016	9,005,200	8,511,100	7,498,300	25,014,600
FY 2017	8,991,000	9,692,600	7,294,900	25,978,500
FY 2018	6,868,000	8,937,000	7,854,100	23,659,100
FY 2019	9,094,800	8,332,000	8,855,200	26,282,000

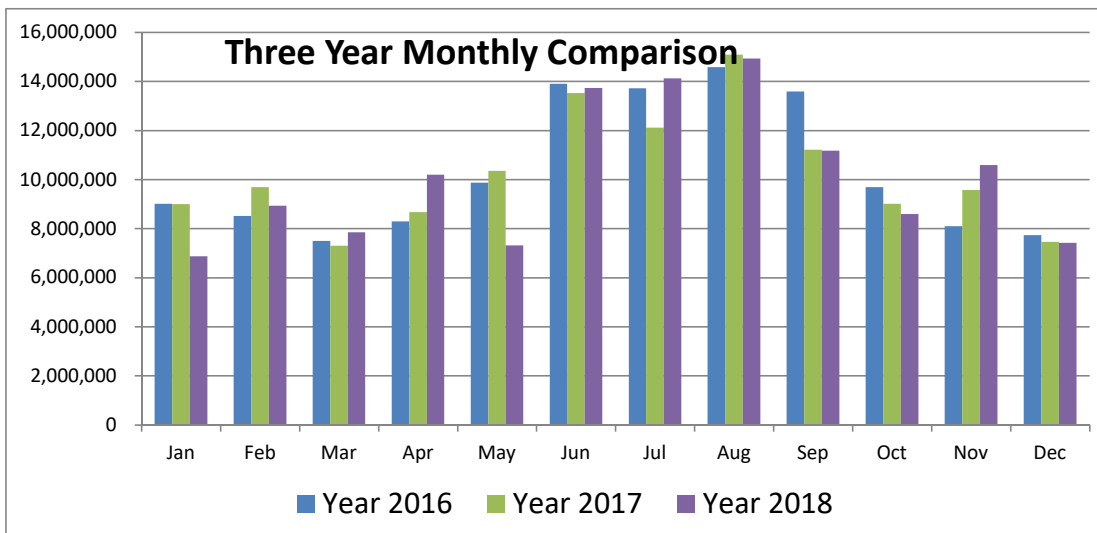


Water Consumption

By Year	<u>Year 2014</u>	<u>Year 2015</u>	<u>Year 2016</u>	<u>Year 2017</u>	<u>Year 2018</u>
Water (vol.)	125,926,274	132,291,300	131,119,200	133,502,000	132,695,300
Operational Adj.	(2,708,068)	(13,210,576)	(6,618,100)	(10,509,900)	(10,965,900)
Water (vol.) after adj.	123,218,206	119,080,724	124,501,100	122,992,100	121,729,400



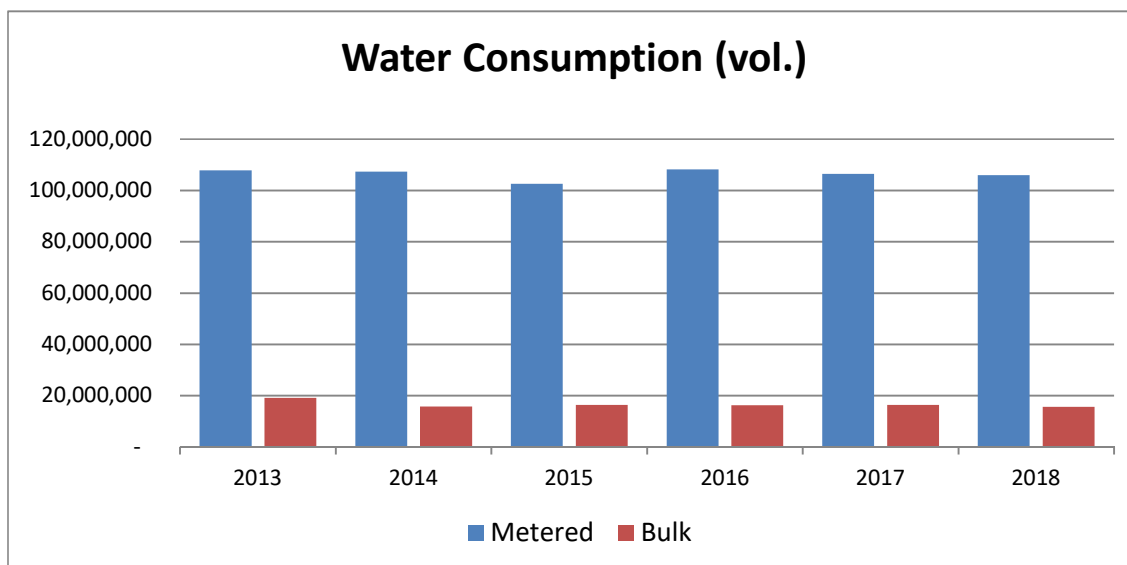
<u>Month\Year</u>	<u>Year 2016</u>	<u>Year 2017</u>	<u>Year 2018</u>
Jan	9,005,200	8,991,000	6,868,000
Feb	8,511,100	9,692,600	8,937,000
Mar	7,498,300	7,294,900	7,854,100
Apr	8,293,400	8,675,000	10,193,800
May	9,876,500	10,350,500	7,316,900
Jun	13,904,500	13,528,300	13,734,900
Jul	13,719,400	12,119,600	14,120,300
Aug	14,581,400	15,091,400	14,931,500
Sep	13,589,000	11,213,400	11,169,500
Oct	9,693,400	9,010,900	8,587,200
Nov	8,097,300	9,569,500	10,593,700
Dec	7,731,600	7,455,000	7,422,500
	124,501,100	122,992,100	121,729,400
	4.6%	-1.2%	-1.0%



	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>
Metered	107,875,885	107,403,206	102,688,524	108,248,600	106,566,800	106,018,000
Bulk	19,129,600	15,815,000	16,392,200	16,252,500	16,425,300	15,711,400
Total Consumption*	127,005,485	123,218,206	119,080,724	124,501,100	122,992,100	121,729,400

Bulk as % of Total Volume	15.06%	12.83%	13.77%	13.05%	13.35%	12.91%
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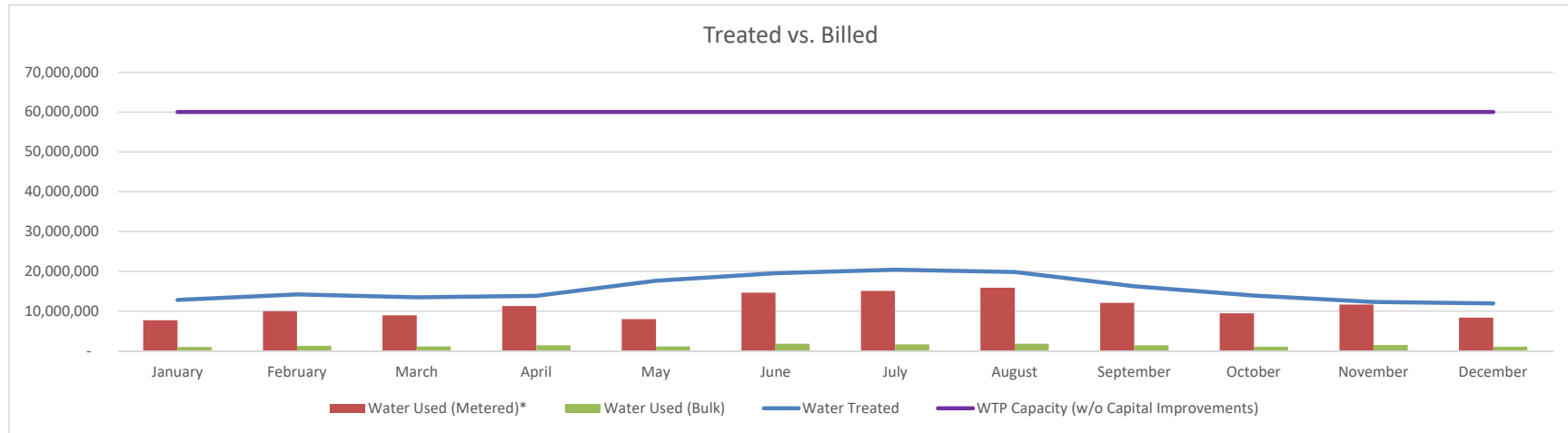
*Includes Operational Adjustment



Water Analysis
Gallons Treated vs. Billed

	January	February	March	April	May	June	July	August	September	October	November	December
Water Treated	12,785,000	14,124,000	13,409,000	13,814,000	17,612,000	19,495,000	20,421,000	19,771,000	16,202,000	13,857,000	12,263,000	11,942,000
Water Used (Metered)*	7,667,200	9,928,100	8,897,200	11,244,400	7,970,400	14,629,050	15,014,450	15,825,650	12,063,650	9,442,200	11,570,300	8,287,100
Water Used (Bulk)	979,500	1,223,900	1,091,500	1,378,600	1,071,700	1,789,100	1,588,900	1,732,400	1,357,100	1,022,600	1,438,800	1,037,300

*Includes Sewer Treatment Plant



	January	February	March	April	May	June	July	August	September	October	November	December
Unmetered Water Usage*	5,117,800	4,195,900	4,511,800	2,569,600	9,641,600	4,865,950	5,406,550	3,945,350	4,138,350	4,414,800	692,700	3,654,900

*Includes flushing for compliance sampling, annual maintenance, freeze protection, Water Treatment Plant operations, Sewer Treatment Plant operations, and odor control.

City of Homer
Water and Sewer Rates Comparison
Presented May 13, 2019

<u>Water Rates</u>	Current	Proposed	Variance
Monthly Service Fee (all users)	\$ 13.00	\$ 13.00	\$ -
Additional Monthly Fee per Unit for Multi-Units	\$ 5.00	\$ 5.00	\$ -
Per Gallon Rate (Residential & Commercial)	\$ 0.0132	\$ 0.0142	\$ 0.0010
Rate per 100 Gallons	\$ 1.32	\$ 1.42	\$ 0.10
Per Gallon Rate (Bulk)	\$ 0.0172	\$ 0.0182	\$ 0.0010
Rate per 100 Gallons - Bulk	\$ 1.72	\$ 1.82	\$ 0.10
<u>Sewer Rates for Water Customers</u>	Current	Proposed	Variance
Monthly Service Fee (all users)	\$ -	\$ -	\$ -
Additional Monthly Fee per Unit for Multi-Units	\$ 5.00	\$ 5.00	\$ -
Per Gallon Rate Regular (Residential & Commercial)	\$ 0.0145	\$ 0.0166	\$ 0.0021
Rate per 100 Gallons - Non Lift	\$ 1.45	\$ 1.66	\$ 0.21
Per Gallon Rate Lift Station (Residential & Commercial)	\$ 0.0224	\$ 0.0244	\$ 0.0020
Rate per 100 Gallons - Lift Station	\$ 2.24	\$ 2.44	\$ 0.20
<u>Water and Sewer Rates Combined</u>	Current	Proposed	Variance
Combined Costs Water/Sewer Regular	\$ 0.0277	\$ 0.0308	\$ 0.0031
Rate per 100 Gallons - Non Lift	\$ 2.77	\$ 3.08	\$ 0.3100
Combined Costs Water/Sewer Lift Station	\$ 0.0356	\$ 0.0386	\$ 0.0030
Rate per 100 Gallons - Lift Station	\$ 3.56	\$ 3.86	\$ 0.3000
<u>Sewer Rates for Sewer ONLY Customers (3,000 Gallons/Month of Sewage Applied)</u>	Current	Proposed	Variance
Monthly Service Fee (all users)	\$ 5.00	\$ 5.00	\$ -
Additional Monthly Fee per Unit for Multi-Units	\$ 5.00	\$ 5.00	\$ -
Monthly Fee for Septic Pumping Services	\$ 6.75	\$ 6.25	\$ (0.50)
Per Gallon Rate Regular (Residential & Commercial)	\$ 0.0145	\$ 0.0166	\$ 0.00
Rate per 3,000 Gallons - Non Lift	\$ 43.50	\$ 49.80	\$ 6.30
Per Gallon Rate Lift Station (Residential & Commercial)	\$ 0.0224	\$ 0.0244	\$ 0.00
Rate per 3,000 Gallons - Lift Station	\$ 67.20	\$ 73.20	\$ 6.00

City of Homer
Water and Sewer Rates Comparison
Presented May 13, 2019

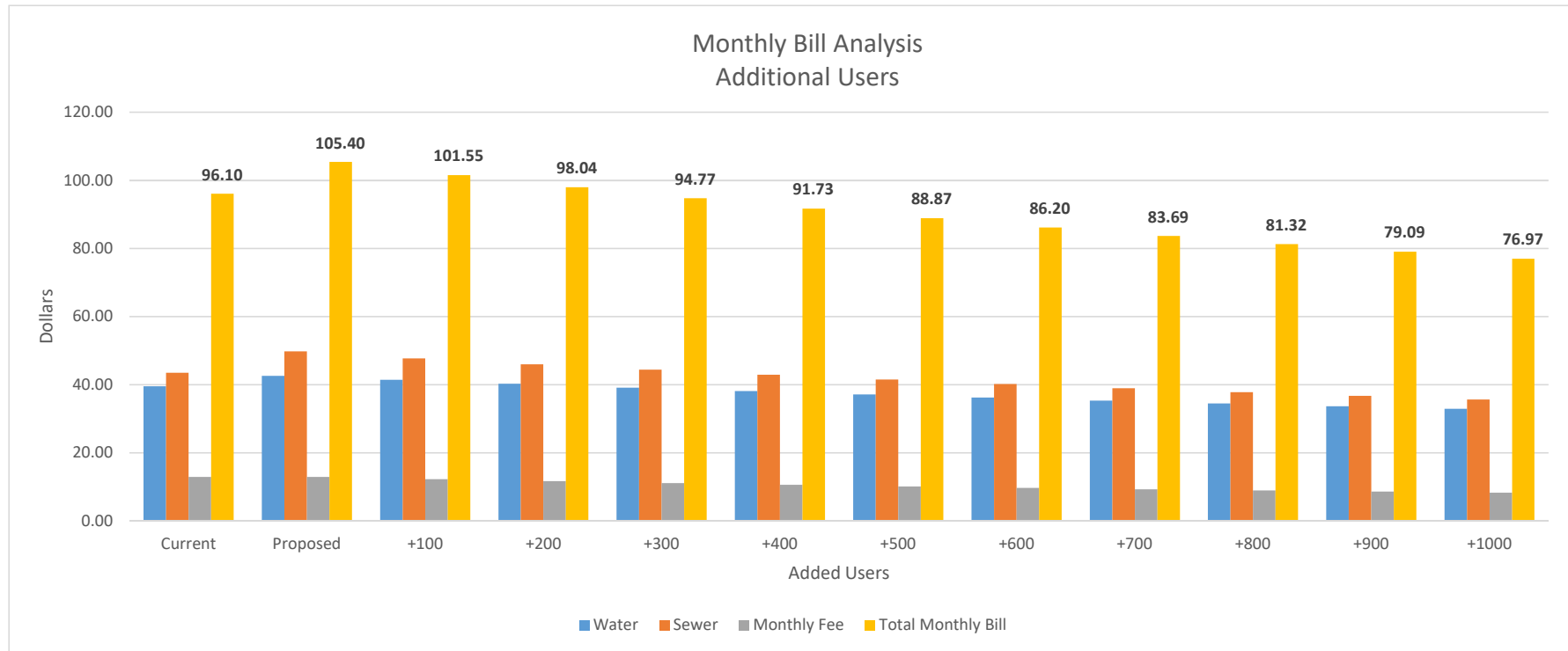
Average Volume		
City Hall		
	Existing	New Rate
Consumption	3900	3900
Water Rate	0.0132	0.0142
Sewer Rate	0.0145	0.0166
<u>Charges:</u>		
Water	51.48	55.38
Sewer	56.55	64.74
Service	13	13
Total Bill	\$ 121.03	\$ 133.12

High Volume		
Library		
	Existing	New Rate
	9800	9800
	0.0132	0.0142
	0.0145	0.0166
	129.36	139.16
	142.1	162.68
	13	13
Total Bill	\$ 284.46	\$ 314.84

Lift-Station (Year-Round)		
Port & Harbor - Maintenance		
	Existing	New Rate
	1500	1500
	0.0132	0.0142
	0.0224	0.0244
	19.8	21.3
	33.6	36.6
	13	13
Total Bill	\$ 66.40	\$ 70.90

Impact	\$ 12.09	\$ 30.38	\$ 4.50
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City of Homer
Water and Sewer Rate Worksession



Parameters/Assumptions:

- A user is defined with an average usage of 3,000 gallons per month
- # of current meters (as of 3/31/19 billing) is 1,786
- # of meters 5 years ago (as of 3/31/14 billing) is 1,616



City of Homer

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Finance Department 12

491 East Pioneer Avenue
Homer, Alaska 99603

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(f) 907-235-3140

Memorandum

TO: Mayor Castner and Homer City Council
THROUGH: Katie Koester, City Manager
FROM: Elizabeth Walton, Finance Director
DATE: May 8, 2019
SUBJECT: Water and Sewer Rate Model

The purpose of this memo is to provide an overview of the model used to generate the water and sewer rates.

Introduction:

The basic principles and assumptions of this model were developed by the most recent Water and Sewer Task Force. The purpose of this model is to generate a utility rate that is a product of budget assumptions and the backing out of fixed fee components. The intent was to provide the City with a mechanism that connected the water and sewer rates to the actual costs to maintain the infrastructure.

The format of the rate model has changed from the one the Water and Sewer Task Force generated, but the basic principles and assumptions remain the same. These changes were made to more accurately reflect the City's budget structure.

Water Rate Model:

This model generates a rate based on water revenues and consumption.

Revenues

The total revenue required is pulled directly out of the current year's budget (as we set the rates for Water and Sewer prior to the finalization of the next year's budget). To be more transparent with the budgeting of the transfer to reserves, the transfer has been backed out of the revenue amount and is now listed in its own line on this model.

The reserve requirement is currently set at 15% of the total revenue required. This percentage was derived by conversations with the Water and Sewer Superintendent, our three year average transfer and by industry standard research. The City has to work diligently towards maintaining the extensive water and sewer infrastructure. The infrastructure is aging and the City needs to be prepared for upcoming maintenance expenses.

The model backs out three fixed fee components. The first fixed fee is related to the overhead costs assigned to the fund. These costs cover a portion of the administrative costs associated

with the processing of utility payments. This fee is backed out because the Monthly Fee amount is used to cover such expenses. The second fee is Hydrant Rents and it is related to the costs associated with maintaining the water hydrants. This cost is budgeted at 10% of total water revenue required and the costs are shared 50/50 between the General Fund and the Water/Sewer Fund. The final fixed fee references Bulk Water Sales. This amount is determined by applying the bulk surcharge (0.004/gallon) to the prior year total gallons consumed by bulk users. This is backed out because these expenses are captured by the separate rate for bulk users.

Consumption

The water consumption line is determined by prior years gross meters water sales (in gallons). The water usage at the Sewer Treatment Plant has been backed out of this figure, as it has been determined to be an operational cost. The model rounds up to the nearest million for ease of reporting.

Rates

The water rates are broken into three categories. The commodity rate (per gallon) is generated by dividing the total revenue required by the estimated water sales. This ensures that the whole population of water users are contributing to an equal share of costs. The bulk rate (per gallon) is applying a surcharge of 0.004 per gallon to the set commodity rate. The monthly fees is determined by dividing the budgeted administrative costs by the current number of water meters. As of the March 2019 billing, there were a total of 1,786 meters.

Sewer Rate Model:

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Revenues

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The model backs out four fixed fee components. The first fixed fee is related to costs associated with the lift station. These costs are pulled straight from the current budget and have a built in inflation cost of 2%. These costs are backed out because the users on the lift station bear the complete costs associated with maintaining this infrastructure. The second fixed fee is the pumping fee for Kachemak City users. The City RFP's the pumping contract every three years and the costs of the contract is divided up amongst the number of users in this LID. As of March 2019 billing, there are currently 142 users. The contract was awarded last year and with the added users this year the monthly rate is proposed to be reduced from \$6.75/month to \$6.25/month. The third fixed fee is the dumping station fee and that comes directly from the previous year's budget. This fee has been determined to be an operational

cost and, as such the fee is not forwarded along to customers. The final fixed cost is a set rate assigned to only multi-units and Kachemak City meters. This is an additional fee charged to help offset added costs associated with maintaining such infrastructure.

Usage

The sewer usage is determined by the by the number of gallons actually billed for in the prior fiscal year. The model rounds up to the nearest million for ease of reporting.

Rates

The sewer rate is broken into two categories (non-lift and lift station). The non-lift rate is generated by dividing the total revenue required by the projected billable volume for non-lift. The lift station rate is generated by dividing the total revenue required by the projected billable volume for only the lift zone.

Recommendation:

Review the model and approve the rates set forth.

Rate Calculations

WATER Rate Model	
Revenues	
2019 Total Revenue Required - Water	\$ 1,887,755
15% Reserve Requirement	283,163
Deduct Portion Collected through Service Fee	(278,902)
Hydrant Rents (10% of Total)	(94,388)
Surplus Water Sales (Bulk) surcharge only	(62,846)
Revenue Required for Commodity Rate Calculation	\$ 1,734,783
Water Consumption (Gallons)	
Total Estimated Water Sales	122,000,000
Water Rates:	
Commodity Rate (per gal)	\$ 0.0142
Bulk Rate (per gal)	\$ 0.0182
Monthly Fees	\$ 13
Consumption Additional Information:	
FY18 Gross Meters Water Sales (Gallons)	121,729,400
SEWER Rate Model	
Revenues	
2019 Total Operating Revenue Required - Sewer	\$ 1,566,850
15% Reserve Requirement	235,028
Lift Stations Costs	(203,197)
Pumping Fee	(10,650)
Dumping Station Fees	(3,507)
Multi-Units and K-city (\$5/unit/mo.)	(60,780)
Revenue Required for Commodity Rate Calculation	\$ 1,523,743
Sewer Usage (Gallons)	
Projected Billable Volume	66,000,000
Projected Billable Volume - Lift Zone Only	26,000,000
Total Projected Billable Volume	92,000,000
Sewer Rate	
Non-Lift Station Rate	\$ 0.0166
Lift Station Rate	\$ 0.0244
Lift Station Additional Information:	
FY 18 Actually Billed Gallons (Lift-Station Zone Only)	25,859,600

City of Homer
Water and Sewer Rate Study

WATER			
Descriptions	Units	Rate	Projected Revenue - for FY 2019
Total Metered Water Sales	122,000,000		
Bulk Water Sales	16,000,000	\$ 0.0182	\$ 291,513
Metered Water Sales (excluding Bulk)	106,000,000	\$ 0.0142	\$ 1,507,271
Service Charges	1,786	\$ 13.00	\$ 278,616
Hydrant Rents			\$ 94,388
Total Projected Revenue			\$ 2,171,787
FY 2019 Projected Water Budget			\$ 2,170,918
			\$ 869

SEWER			
Descriptions	Units	Rate	Projected Revenue - for FY 2019
Projected Total Billable Sewage Discharge (Gal.)	92,000,000		
Billable Volume from Lift-Station Zone (Gal.)	26,000,000	\$ 0.0244	\$ 633,820
Billable Volume from Non-Lift-Station Zone (Gal.)	66,000,000	\$ 0.0166	\$ 1,093,120
Multi-Units (Including K-city)	1,013	\$ 5.00	\$ 60,780
Kachemak City pumping charges	142	\$ 6.25	\$ 10,650
Dumping Station Fees			\$ 3,507
Total Projected Sewer Revenue			\$ 1,801,878
FY 2019 Projected Sewer Budget			\$ 1,801,878
			0



City of Homer

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Finance Department 17

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FROM: Elizabeth Walton, Finance Director
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The reserve requirement is currently set at 15% of the total revenue required. This percentage was derived by conversations with the Water and Sewer Superintendent, our three year average transfer and by industry standard research. The City has to work diligently towards maintaining the extensive water and sewer infrastructure. The infrastructure is aging and the City needs to be prepared for upcoming maintenance expenses.

The model backs out three fixed fee components. The first fixed fee is related to the overhead costs assigned to the fund. These costs cover a portion of the administrative costs associated

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Rates

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