



# City of Homer

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Finance Department

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## Memorandum 20-183

TO: Mayor Castner and Homer City Council  
THROUGH: Rob Dumouchel, City Manager  
FROM: Elizabeth Walton, Finance Director  
DATE: October 21, 2020  
SUBJECT: Water and Sewer Rate Model – Additional Rate Scenarios

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At the previous council meeting, there was discussion regarding water/sewer rate scenarios. There was an additional need to provide scenarios connected directly to our 2021 budget. Below are descriptions for all of the scenarios previously presented as well as two new scenarios. Included as supplemental information to this memo are detailed rate models for each scenario and a comparison chart. This chart compares each of the proposed rates with our existing 2020 rate.

### **Scenario 1 – Maintain Current Rate Model (15% Reserve Requirement)**

This scenario keeps everything status quo and utilizes a 15% reserve requirement. All other line items and definitions remain consistent with the original proposed model.

The model under these terms proposes the following rates:

#### Water Rates:

Commodity (per gal): \$0.0133

Bulk (per gal): \$0.0173

Monthly Fees: \$13

#### Sewer Rates:

Non-Lift Station: \$0.0157

Lift Station: \$0.0256

## **Scenario 2 – Utilize Current Rate Model, Amend to 10% Reserve Requirement**

This scenario utilizes rate model, but amends the reserve requirement to 10% (instead of the original 15%). All other line items and definitions remain consistent with the original proposed model.

The model under these terms proposes the following rates:

### Water Rates:

Commodity (per gal): \$0.0126

Bulk (per gal): \$0.0166

Monthly Fees: \$13

### Sewer Rates:

Non-Lift Station: \$0.0149

Lift Station: \$0.0247

## **Scenario 3 – Utilize Current Rate Structure, Amend Inputs to match 2021 Budgeted Costs**

This scenario utilizes current rate model structure, but amends inputs to match the adopted 2021 budgeted costs. The following line items in the water model were adjusted to match the budget: total revenue required, reserve requirement and service fee deduction. The hydrant rents line item is amended, as it is a fraction of the total revenue required. All other line items and definitions remain consistent with the original proposed model.

The model under these terms proposes the following rates:

### Water Rates:

Commodity (per gal): \$0.0130

Bulk (per gal): \$0.0170

Monthly Fees: \$14

### Sewer Rates:

Non-Lift Station: \$0.0148

Lift Station: \$0.0249

**Scenario 4 – Utilize Current Rate Model, Amend to 2021 Budgeted Reserve Transfer**

This scenario utilizes the current rate model, but amends the reserve requirement to match the FY21 budgeted reserve transfer (instead of the original 15%). All other line items and definitions remain consistent with the original proposed model.

The model under these terms proposes the following rates:

Water Rates:

Commodity (per gal): \$0.0127

Bulk (per gal): \$0.0167

Monthly Fees: \$13

Sewer Rates:

Non-Lift Station: \$0.0138

Lift Station: \$0.0237

**Scenario 5 – Utilize Current Rate Structure, Amend Inputs to match 2021 Budgeted Costs, with 15% Reserve Requirement**

This scenario utilizes current rate model structure, but amends inputs to match the adopted 2021 budgeted costs, with a 15% reserve requirement. The following line items in the water model were adjusted to match the budget: total revenue required and service fee deduction. The hydrant rents and reserve requirement line items were amended, as these lines are a fraction of the total revenue required. All other line items and definitions remain consistent with the original proposed model.

The model under these terms proposes the following rates:

Water Rates:

Commodity (per gal): \$0.0137

Bulk (per gal): \$0.0177

Monthly Fees: \$14

Sewer Rates:

Non-Lift Station: \$0.0169

Lift Station: \$0.0269

**Scenario 6 – Utilize Current Rate Structure, Amend Inputs to match 2021 Budgeted Costs, with 10% Reserve Requirement**

This scenario utilizes current rate model structure, but amends inputs to match the adopted 2021 budgeted costs, with a 10% reserve requirement. The following line items in the water model were adjusted to match the budget: total revenue required and service fee deduction. The hydrant rents line item was amended, as this line is a fraction of the total revenue required. The reserve requirement line item was amended to 10% of total revenue required. All other line items and definitions remain consistent with the original proposed model.

The model under these terms proposes the following rates:

Water Rates:

Commodity (per gal): \$0.0129

Bulk (per gal): \$0.0169

Monthly Fees: \$14

Sewer Rates:

Non-Lift Station: \$0.0160

Lift Station: \$0.0261

**Current Rates:**

To provide additional context our current rates are as follows:

Water Rates:

Commodity (per gal): \$0.0132

Bulk (per gal): \$0.0172

Monthly Fees: \$13

Sewer Rates:

Non-Lift Station: \$0.0145

Lift Station: \$0.0224

# Scenario 1 - Rate Calculations

<b>WATER Rate Model</b>	
<b>Revenues</b>	
2020 Total Revenue Required - Water	\$ 1,911,348
15% Reserve Requirement	286,702
Deduct Portion Collected through Service Fee	(286,547)
Hydrant Rents (10% of Total)	(95,567)
Surplus Water Sales (Bulk) surcharge only	(67,796)
Revenue Required for Commodity Rate Calculation	\$ 1,748,140
<b>Water Consumption (Gallons)</b>	
Total Estimated Water Sales	131,000,000
<b>Water Rates:</b>	
Commodity Rate (per gal)	\$ 0.0133
Bulk Rate (per gal)	\$ 0.0173
Monthly Fees	\$ 13
<b><u>Consumption Additional Information:</u></b>	
FY19 Gross Meters Water Sales (Gallons)	131,478,500
<b>SEWER Rate Model</b>	
<b>Revenues</b>	
2020 Total Operating Revenue Required - Sewer	\$ 1,627,400
15% Reserve Requirement	244,110
Lift Stations Costs	(217,160)
Pumping Fee	(10,050)
Dumping Station Fees	(5,978)
Multi-Units and K-city (\$5/unit/mo.)	(70,320)
Revenue Required for Commodity Rate Calculation	\$ 1,568,002
<b>Sewer Usage (Gallons)</b>	
Projected Billable Volume	78,000,000
Projected Billable Volume - Lift Zone Only	22,000,000
Total Projected Billable Volume	100,000,000
<b>Sewer Rate</b>	
Non-Lift Station Rate	\$ 0.0157
Lift Station Rate	\$ 0.0256
<b><u>Lift Station Additional Information:</u></b>	
FY 19 Actually Billed Gallons (Lift-Station Zone Only)	21,706,300

## Scenario 2 - Rate Calculations

<b>WATER Rate Model</b>	
<b>Revenues</b>	
2020 Total Revenue Required - Water	\$ 1,911,348
10% Reserve Requirement	191,135
Deduct Portion Collected through Service Fee	(286,547)
Hydrant Rents (10% of Total)	(95,567)
Surplus Water Sales (Bulk) surcharge only	(67,796)
Revenue Required for Commodity Rate Calculation	\$ 1,652,573
<b>Water Consumption (Gallons)</b>	
Total Estimated Water Sales	131,000,000
<b>Water Rates:</b>	
Commodity Rate (per gal)	\$ 0.0126
Bulk Rate (per gal)	\$ 0.0166
Monthly Fees	\$ 13
<b>Consumption Additional Information:</b>	
FY19 Gross Meters Water Sales (Gallons)	131,478,500
<b>SEWER Rate Model</b>	
<b>Revenues</b>	
2020 Total Operating Revenue Required - Sewer	\$ 1,627,400
10% Reserve Requirement	162,740
Lift Stations Costs	(217,160)
Pumping Fee	(10,050)
Dumping Station Fees	(5,978)
Multi-Units and K-city (\$5/unit/mo.)	(70,320)
Revenue Required for Commodity Rate Calculation	\$ 1,486,632
<b>Sewer Usage (Gallons)</b>	
Projected Billable Volume	78,000,000
Projected Billable Volume - Lift Zone Only	22,000,000
Total Projected Billable Volume	100,000,000
<b>Sewer Rate</b>	
Non-Lift Station Rate	\$ 0.0149
Lift Station Rate	\$ 0.0247
<b>Lift Station Additional Information:</b>	
FY 19 Actually Billed Gallons (Lift-Station Zone Only)	21,706,300

## Scenario 3 - Rate Calculations

<b>WATER Rate Model</b>	
<b>Revenues</b>	
2021 Total Revenue Required - Water	\$ 1,962,599
Reserve Requirement - 2021 Budgeted Transfer	206,071
Deduct Portion Collected through Service Fee	(301,116)
Hydrant Rents (10% of Total)	(98,130)
Surplus Water Sales (Bulk) surcharge only	(67,796)
Revenue Required for Commodity Rate Calculation	\$ 1,701,629
<b>Water Consumption (Gallons)</b>	
Total Estimated Water Sales	131,000,000
<b>Water Rates:</b>	
Commodity Rate (per gal)	\$ 0.0130
Bulk Rate (per gal)	\$ 0.0170
Monthly Fees	\$ 14
<b><u>Consumption Additional Information:</u></b>	
FY19 Gross Meters Water Sales (Gallons)	131,478,500
<b>SEWER Rate Model</b>	
<b>Revenues</b>	
2021 Total Operating Revenue Required - Sewer	\$ 1,734,023
Reserve Requirement - 2021 Budgeted Transfer	54,594
Lift Stations Costs	(222,021)
Pumping Fee	(10,050)
Dumping Station Fees	(6,156)
Multi-Units and K-city (\$5/unit/mo.)	(70,320)
Revenue Required for Commodity Rate Calculation	\$ 1,480,070
<b>Sewer Usage (Gallons)</b>	
Projected Billable Volume	78,000,000
Projected Billable Volume - Lift Zone Only	22,000,000
Total Projected Billable Volume	100,000,000
<b>Sewer Rate</b>	
Non-Lift Station Rate	\$ 0.0148
Lift Station Rate	\$ 0.0249
<b><u>Lift Station Additional Information:</u></b>	
FY 19 Actually Billed Gallons (Lift-Station Zone Only)	21,706,300

## Scenario 4 - Rate Calculations

<b>WATER Rate Model</b>	
<b>Revenues</b>	
2020 Total Revenue Required - Water	\$ 1,911,348
Reserve Requirement - 2021 Budgeted Transfer	206,071
Deduct Portion Collected through Service Fee	(286,547)
Hydrant Rents (10% of Total)	(95,567)
Surplus Water Sales (Bulk) surcharge only	(67,796)
Revenue Required for Commodity Rate Calculation	\$ 1,667,509
<b>Water Consumption (Gallons)</b>	
Total Estimated Water Sales	131,000,000
<b>Water Rates:</b>	
Commodity Rate (per gal)	\$ 0.0127
Bulk Rate (per gal)	\$ 0.0167
Monthly Fees	\$ 13
<b><u>Consumption Additional Information:</u></b>	
FY19 Gross Meters Water Sales (Gallons)	131,478,500
<b>SEWER Rate Model</b>	
<b>Revenues</b>	
2020 Total Operating Revenue Required - Sewer	\$ 1,627,400
Reserve Requirement - 2021 Budgeted Transfer	54,594
Lift Stations Costs	(217,160)
Pumping Fee	(10,050)
Dumping Station Fees	(5,978)
Multi-Units and K-city (\$5/unit/mo.)	(70,320)
Revenue Required for Commodity Rate Calculation	\$ 1,378,486
<b>Sewer Usage (Gallons)</b>	
Projected Billable Volume	78,000,000
Projected Billable Volume - Lift Zone Only	22,000,000
Total Projected Billable Volume	100,000,000
<b>Sewer Rate</b>	
Non-Lift Station Rate	\$ 0.0138
Lift Station Rate	\$ 0.0237
<b><u>Lift Station Additional Information:</u></b>	
FY 19 Actually Billed Gallons (Lift-Station Zone Only)	21,706,300



## Scenario 5 - Rate Calculations

<b>WATER Rate Model</b>	
<b>Revenues</b>	
2021 Total Revenue Required - Water	\$ 1,962,599
15% Reserve Requirement	294,390
Deduct Portion Collected through Service Fee	(301,116)
Hydrant Rents (10% of Total)	(98,130)
Surplus Water Sales (Bulk) surcharge only	(67,796)
Revenue Required for Commodity Rate Calculation	\$ 1,789,948
<b>Water Consumption (Gallons)</b>	
Total Estimated Water Sales	131,000,000
<b>Water Rates:</b>	
Commodity Rate (per gal)	\$ 0.0137
Bulk Rate (per gal)	\$ 0.0177
Monthly Fees	\$ 14
<b><u>Consumption Additional Information:</u></b>	
FY19 Gross Meters Water Sales (Gallons)	131,478,500
<b>SEWER Rate Model</b>	
<b>Revenues</b>	
2021 Total Operating Revenue Required - Sewer	\$ 1,734,023
15% Reserve Requirement	260,103
Lift Stations Costs	(222,021)
Pumping Fee	(10,050)
Dumping Station Fees	(6,156)
Multi-Units and K-city (\$5/unit/mo.)	(70,320)
Revenue Required for Commodity Rate Calculation	\$ 1,685,579
<b>Sewer Usage (Gallons)</b>	
Projected Billable Volume	78,000,000
Projected Billable Volume - Lift Zone Only	22,000,000
Total Projected Billable Volume	100,000,000
<b>Sewer Rate</b>	
Non-Lift Station Rate	\$ 0.0169
Lift Station Rate	\$ 0.0269
<b><u>Lift Station Additional Information:</u></b>	
FY 19 Actually Billed Gallons (Lift-Station Zone Only)	21,706,300

## Scenario 6 - Rate Calculations

<b>WATER Rate Model</b>	
<b>Revenues</b>	
2021 Total Revenue Required - Water	\$ 1,962,599
10% Reserve Requirement	196,260
Deduct Portion Collected through Service Fee	(301,116)
Hydrant Rents (10% of Total)	(98,130)
Surplus Water Sales (Bulk) surcharge only	(67,796)
Revenue Required for Commodity Rate Calculation	\$ 1,691,818
<b>Water Consumption (Gallons)</b>	
Total Estimated Water Sales	131,000,000
<b>Water Rates:</b>	
Commodity Rate (per gal)	\$ 0.0129
Bulk Rate (per gal)	\$ 0.0169
Monthly Fees	\$ 14
<b><u>Consumption Additional Information:</u></b>	
FY19 Gross Meters Water Sales (Gallons)	131,478,500
<b>SEWER Rate Model</b>	
<b>Revenues</b>	
2021 Total Operating Revenue Required - Sewer	\$ 1,734,023
10% Reserve Requirement	173,402
Lift Stations Costs	(222,021)
Pumping Fee	(10,050)
Dumping Station Fees	(6,156)
Multi-Units and K-city (\$5/unit/mo.)	(70,320)
Revenue Required for Commodity Rate Calculation	\$ 1,598,878
<b>Sewer Usage (Gallons)</b>	
Projected Billable Volume	78,000,000
Projected Billable Volume - Lift Zone Only	22,000,000
Total Projected Billable Volume	100,000,000
<b>Sewer Rate</b>	
Non-Lift Station Rate	\$ 0.0160
Lift Station Rate	\$ 0.0261
<b><u>Lift Station Additional Information:</u></b>	
FY 19 Actually Billed Gallons (Lift-Station Zone Only)	21,706,300

**City of Homer**  
**Water and Sewer Rates Comparison**  
**Presented October 26, 2020**

Average Volume							
City Hall							
	Existing	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6
Consumption	3800	3800	3800	3800	3800	3800	3800
Water Rate	0.0132	0.0133	0.0126	0.0130	0.0127	0.0137	0.0129
Sewer Rate	0.0145	0.0157	0.0149	0.0148	0.0138	0.0169	0.016
<b>Charges:</b>							
Water	50.16	50.54	47.88	49.40	48.26	52.06	49.02
Sewer	55.10	59.66	56.62	56.24	52.44	64.22	60.8
Service	13	13	13	14	13	14	14
<b>Total Bill</b>	<b>\$ 118.26</b>	<b>\$ 123.20</b>	<b>\$ 117.50</b>	<b>\$ 119.64</b>	<b>\$ 113.70</b>	<b>\$ 130.28</b>	<b>\$ 123.82</b>
<b>Impact</b>	<b>\$ 4.94</b>	<b>\$ (0.76)</b>	<b>\$ 1.38</b>	<b>\$ (9.50)</b>	<b>\$ 12.78</b>	<b>\$ 5.56</b>	

High Volume							
Library							
	Existing	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6
Consumption	6600	6600	6600	6600	6600	6600	6600
Water Rate	0.0132	0.0133	0.0126	0.0130	0.0127	0.0137	0.0129
Sewer Rate	0.0145	0.0157	0.0149	0.0148	0.0138	0.0169	0.016
<b>Charges:</b>							
Water	87.12	87.78	83.16	85.80	83.82	90.42	85.14
Sewer	95.7	103.62	98.34	97.68	91.08	111.54	105.6
Service	13	13	13	14	13	14	14
<b>Total Bill</b>	<b>\$ 195.82</b>	<b>\$ 204.40</b>	<b>\$ 194.50</b>	<b>\$ 197.48</b>	<b>\$ 187.90</b>	<b>\$ 215.96</b>	<b>\$ 204.74</b>
<b>Impact</b>	<b>\$ 8.58</b>	<b>\$ (1.32)</b>	<b>\$ 1.66</b>	<b>\$ (16.50)</b>	<b>\$ 21.46</b>	<b>\$ 8.92</b>	

Lift-Station (Year-Round)							
Port & Harbor - Maintenance							
	Existing	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6
Consumption	1800	1800	1800	1800	1800	1800	1800
Water Rate	0.0132	0.0133	0.0126	0.013	0.0127	0.0137	0.0129
Sewer Rate	0.0224	0.0256	0.0247	0.0249	0.0237	0.0269	0.0261
<b>Charges:</b>							
Water	23.76	23.94	22.68	23.40	22.86	24.66	23.22
Sewer	40.32	46.08	44.46	44.82	42.66	48.42	46.98
Service	13	13	13	14	13	14	14
<b>Total Bill</b>	<b>\$ 77.08</b>	<b>\$ 83.02</b>	<b>\$ 80.14</b>	<b>\$ 82.22</b>	<b>\$ 78.52</b>	<b>\$ 87.08</b>	<b>\$ 84.20</b>
<b>Impact</b>	<b>\$ 5.94</b>	<b>\$ 3.06</b>	<b>\$ 5.14</b>	<b>\$ (4.50)</b>	<b>\$ 6.94</b>	<b>\$ 7.12</b>	