

# Water & Sewer Rate Task Force

April 5, 2013

# Task Force Purpose

- Resolution 12-027(A)
- Duty
  - Review the Current Rates
  - Propose Rates for 2013



# Specific Costs Reviewed

- Staffing
  - Required certification for treatment plant operators
  - Required number of staff
- Administrative Costs
  - Finance
  - Other Support
- Water “waste”
  - Port & Harbor
  - Dead-end line flushing
- Meter accuracy

# Other Considerations

- Rates in other communities
  - Not really an apples-to-apples comparison
    - Well water vs. surface water treatment requirements
    - Pressure reducing valves (water system)
    - Lift stations (waste system)
    - Low customer density
    - State-of-the-art treatment facilities
  - Kachemak City Service Contract
    - Out dated



# Model Comparisons

# Equal Commodity Charge Plus A Small Service Fee

## Water and Sewer Rate Study Draft Rate Model

### Assumptions:

1	Hydrant Rents =	
2	Commodity Reduction due	
3	Historic Metered Sales	136,000,000
4	Adjusted Sales Projection	
5	Total Revenue	1,624,471
6	Total Revenue	1,473,602
7	Total Services (meters) =	1,500
8	Total Customers (billings) =	
9	Total Revenue	324,000
10	Spit Differential =	
11	Sprinkler Differential =	
12	Commercial Differential =	
	Monthly Demand Fee =	

Sloan = Line 5/Line 3 = Commodity  
Rate (\$/gal)

Sloan = Line 8/Line 6/12 = Monthly  
Service Fee

	Water	Service	Sewer
All Customers	Rate	Fee	Rate
	0.01194	18	0.0108

Sloan = Line 6/Line 3

### Water Total Revenue:

Commodity	1,624,471
Service	324,000
Total:	1,948,471

# Equal Commodity Charge Plus A Small Service Fee

Total Water and Sewer	Monthly Bill
1 to 150	25.36
151 to 300	41.53
301 to 450	55.27
451 to 600	66.45
601 to 750	77.07
751 to 900	89.37
901 to 1050	102.49
1051 to 1200	123.40
1201 to 1350	169.46
Top 10%	985.46

## Points in Favor:

- A) Simple
- B) Removes multi-tenant charges
- C) Encourages conservation

## Points Against:

- Case 1 No Hydrant Rents
- Case 2 Reduced Sales through conservation
- Case 3 Cost-causers subsidized by others (Spit water)
- Case 4 Cost-causers subsidized by others (Sprinkler water)
- Case 5 Cost-causers subsidized by others (Spit sewer)
- Case 6 Cost-causers subsidized by others (Heavy Commercial sewer)



# Equal Commodity Rate Approach with Hydrant Rents Paid by General Fund

## Assumptions:

1	Hydrant Rents =	178,647			
2	Commodity Reduction due to Conservation =				
3	Historic Metered Sales Projection (gallons) =	136,000,000			
4	Adjusted Sales Projection (gallons) =		All	Water	Service Sewer
5	Total Revenue Requirements for Commodity =	1,445,824	Customers	Rate	Fee Rate
6	Total Revenue Requirements for Disposal =	1,473,602		0.01063	18.00 0.0108
7	Total Services (meters) =	1,500			
8	Total Customers (billings) =				
9	Total Revenue Requirements for Service =	324,000			
10	Spit Differential =				
11	Sprinkler Differential =		Sloan = Line 5/Line 3 = Commodity Rate (\$/gal)		
12	Commercial Differential =		Sloan = Line 8/Line 6/12 = Monthly Service Fee		
	Monthly Demand Fee =		Sloan= Line 6/Line 3		

# Equal Commodity Rate Approach with Hydrant Rents Paid by General Fund

Water Total Revenue:	
Commodity	1,445,824
Service	324,000
Total:	1,769,824

Points in Favor:	Total Water and Sewer	Monthly Bill
A) Simple	1 to 150	24.93
B) Removes multi-tenant charges	151 to 300	40.17
C) Encourages conservation	301 to 450	53.12
	451 to 600	63.66
	601 to 750	73.66
	751 to 900	85.25
	901 to 1050	97.62
Points Against:	1051 to 1200	117.32
Case 2 Reduced Sales through conservation	1201 to 1350	160.73
Case 3 Cost-causers subsidized by others (Spit water)	Top 10%	929.68
Case 4 Cost-causers subsidized by others (Sprinkler water)		
Case 5 Cost-causers subsidized by others (Spit sewer)		
Case 6 Cost-causers subsidized by others (Heavy Commercial sewer)		

# Equal Commodity Rate – Hydrant Rents Paid by General Fund , Includes Conservation Adjustment

## Assumptions:

1	Hydrant Rents =	178,647
	Commodity Reduction due to Conservation	
2	=	13%
	Historic Metered Sales Projection (gallons)	
3	=	136,000,000
4	Adjusted Sales Projection (gallons) =	
	Total Revenue Requirements for	
5	Commodity =	1,633,781
6	Total Revenue Requirements for Disposal =	1,665,170
7	Total Services (meters) =	1,500
8	Total Customers (billings) =	
9	Total Revenue Requirements for Service =	324,000
10	Spit Differential =	24,480
11	Sprinkler Differential =	
12	Commercial Differential =	
13	Monthly Demand Fee =	

Line 5/Line 3 = Commodity Rate (\$/gal)  
Line 8/Line 6/12 = Monthly Service Fee  
Line 6/Line 3

All Customers	Water Rate	Service Fee	Sewer Rate
	0.01201	18	0.0122

Water	Total Revenue:
Commodity	1,633,781
Service	324,000
Total:	1,957,781

# Equal Commodity Rate – Hydrant Rents Paid by General Fund , Includes Conservation Adjustment

Total Water and Sewer	Monthly Bill
1 to 150	25.84
151 to 300	43.06
301 to 450	57.68
451 to 600	69.59
601 to 750	80.90
751 to 900	84.12
901 to 1050	96.27
1051 to 1200	115.65
1201 to 1350	158.32
Top 10%	914.27

Points in  
Favor:

A) Simple

Removes multi-tenant

B) charges

C) Encourages conservation

Points  
Against:

Cost-causers subsidized by others  
Case 3 (Spit water)

Cost-causers subsidized by others  
Case 4 (Sprinkler water)

Cost-causers subsidized by others  
Case 5 (Spit sewer)

Cost-causers subsidized by others (Heavy  
Case 6 Commercial sewer)

# Flat Rate Model

City of Homer Water and Sewer Rate Study Draft Rate Model  
Version 1.1 (Case 1 using Equal Commodity Rate with Hydrant Rents  
Paid by General Fund)

Assumptions:

1Hydrant Rents =	178,647
2Commodity Reduction due to Conservation =	
3Historic Metered Sales Projection (gallons) =	
4Adjusted Sales Projection (gallons) =	
5Total Revenue Requirements for Commodity =	1,607,824
6Total Revenue Requirements for Disposal =	1,635,602
7Total Services (meters) =	1,500
8Total Customers (billings) =	
9Total Revenue Requirements for Service =	
10Spit Differential =	
11Sprinkler Differential =	
12Commercial Differential =	
13Monthly Demand Fee =	

Flat Rate = (Sum Line 5 + Line 6)/Line 7/12 months

All Customers      One Bill for Water and Sewer  
180.19

# Flat Rate Model

Points in Favor:

A) Simple

Points Against:

Cost-causers subsidized by others

Discourages conservation

Multi-fold increase to residential users

# Proposed Model - Water

Version 12 Working Feb - FINAL for 2nd Public Hearing				
Updated February 5, 2012 by Task Force			Water Rates	
	Revenue Assumptions (dollars):			Source:
1	Total Water Revenue Requirements (2014)=		1,890,265	Annual Budget
2	Deduct Portion Collected through Service Fee=		310,077	Annual Budget
2	Hydrant Rents (10% of E6) =		189,027	Annual Budget
4	Sprinkler Differential (20 buildings - \$5/mo)=		1,200	Building Customer
6	Surplus Water Sales (Bulk) surcharge only =		92,290	Bulk Sales
8	Adjusted Revenue Requirements =		1,297,672	Calculated
9	Usage Assumptions (gallons):			
10	Metered Sales Projection (gallons) =		125,000,000	Prior Year
**11	6.5% Commodity Reduction due to Conservation =		8,125,000	Number to be tested
12	Adjusted Sales Projection (gallons) =		116,875,000	Calculated
	Informational:			
13	Spit Water Sales =		17,921,000	Prior Year
14	Surplus (Bulk) Water Sales =		23,072,500	Prior Year
15	Number of Meters =		1,472	Prior Year
16	City Hall Finance Department O/H=		775,192	Annual Budget
17	Public Facilities Water Usage (value)=		134,904	Annual Budget
	All Customers	Water Rate	Metered Service Fee	
		0.0111	17.55	Rounded up to \$18
	Bulk Water = .015/gallon			

# Proposed Model - Sewer

Updated February 5, 2013 by Task Force

Sewer Rates	Version 12 - Working February	FINAL - Second Public Hearing	
	Revenue Assumptions (dollars):		Source:
1	2014 Total Revenue Requirement=	1,680,279	Annual Budget
**2	Sewer Differential (.86*84% of Lift Stations) =	156,447	All Lift Station Users
**3	High BOD Generator Sewage Differential (\$10/mo) =	5,760	New Fee
4	Customer Fee from KC/Tenants (\$5/mo) =	53,160	Reduced Fee
7	Kachemak City Fees (less pumping) =	81,270	Prior Year
8	Dumping Station Fees	10,500	Prior Year
9	Summer Metered Gallons (Septic Reduction) =	(400.00)	From Accounting
10	Adjusted Revenue Requirements=	1,373,542	
	Usage Assumptions (gallons):		
11	Discharge Sales Projection (gross metered) =	125,000,000	Water Sales
**12	6.5% Commodity Reduction due to Conservation =	(8,125,000)	
13	Metered Spit w/o entering Treatment Line=	(9,150,000)	
14	Adjusted Discharge Sales Projection =	107,725,000	
	Informational:		
15	Spit Sewer Discharge (gallons)=	7,225,000	Prior Year
16	Lift Station Costs=	181,915	Annual Budget
17	Single Connection Multi-Tennant Units=	886	Prior Year
18	Public Facilities Contribution =	46,918	Annual Budget
**19	High BOD Generator Sewage (gallons) =	48	From Page 2
20	Dumping Station Fees =	10,500	Annual Budget
	NON-Lift Zone Customers - Sewer Rate /gal		
21	0.013		
**	Lift Station Zones - Sewer Rate /gal		
22	0.023		



# Sample Billing Under the Proposed Rates

Avg Gallons Used	Water Bill w/Service Fee	Sewer	Total Water & Sewer Bill	Lift Station Adj.	Adjusted Total Billing	B.O.D Fee	Tenant Fee	Fire Sprinkler Service	POSSIBLE TOTAL BILLING
323	\$18 \$ 21.59	\$ 4.20	\$ 25.79	3.23	\$ 29.02	\$10	\$5	\$5	\$ 49.02
1,033	\$ 29.47	\$ 13.43	\$ 42.90	10.33	\$ 53.23				\$ 73.23
1,636	\$ 36.16	\$ 21.27	\$ 57.43	16.36	\$ 73.79				\$ 93.79
2,127	\$ 41.62	\$ 27.65	\$ 69.27	21.27	\$ 90.54				\$ 110.54
2,593	\$ 46.79	\$ 33.71	\$ 80.50	25.93	\$ 106.43				\$ 126.43
3,133	\$ 52.79	\$ 40.73	\$ 93.51	31.33	\$ 124.84				\$ 144.84
3,709	\$ 59.18	\$ 48.22	\$ 107.40	37.09	\$ 144.49				\$ 164.49
4,627	\$ 69.37	\$ 60.15	\$ 129.52	46.27	\$ 175.79				\$ 195.79
6,649	\$ 91.82	\$ 86.44	\$ 178.26	66.49	\$ 244.75				\$ 264.75
42,470	\$ 489.55	\$ 552.11	\$ 1,041.66	424.7	\$1,466.36				\$ 1,486.36

# Recommendations

- Replacing the current rate model with the proposed commodity based model.
- Continue to periodically review the allocation of administrative and other overhead expenses to ensure they properly reflect the actual expenses being charged to W & S.
- Clearly delineate water and sewer rates, by location, in future budget documents (i.e., revenue from City facilities and related expense lines in Port & Harbor, Water & Sewer, and other administrative budgets.)
- Confirm that ALL City of Homer facilities receiving water and sewer services are being properly metered and billed.
- Consider alternatives for refreshing the water in dead-end lines.
- Renew the contract with Kachemak City and ensure that the rates adequately reflect the cost of this area on the system as a whole, including any added administrative expenses.
- Conduct rate-setting in a manner that will not allow political influences to result in the under collection of rates in the future.
- Establish a periodic meter inspection program to ensure that all meters are properly installed and reading.
- Consider hiring a qualified consulting firm to review the rate structure and/or establish a Water & Sewer Board that is advisory to the Council.

# Questions

