

TO: Jim Scholl, City Manager

Cc: Mark Finigan, Asst. City Manager E. David Fernandez, Asst. City Manager-Operations

**FROM:** Jay Gewin, Utilities Manager

DATE: August 28, 2011

SUBJECT: An Ordinance Establishing a Monthly Base Charge Unit of 3,500 Gallons for Sewer Utility Billing, and Authorizing a \$23.79 Wastewater Base Charge Component, an \$8.71 Sewer Well Surcharge, and a \$4.71 Wastewater Commodity Charge for FY 2012.

## Action statement:

This ordinance will amend City Code Section 74-246 (e) to establish 3,500 gallons as the monthly base charge unit (BCU) for sewer utility billing. It will also authorize a 2,40% increase in the average monthly wastewater bill for Key West households and commercial businesses for FY 2012. This would equate to approximately 95¢ per month increase per residential household.

## Background:

<u>Base Charge Unit (BCU):</u> Section 74-246 (e) of the Code of Ordinances reads:

"The assumed percentage of water being contributed to the sewer system, as referred to in Ordinance No. 89-33, subsection (b)(1), continues to be 80 percent. This figure times the average monthly residential water consumption, the product then divided by the average number of residential dwelling units, yields an average residential monthly wastewater production (rounded to the nearest hundred gallons) or monthly base charge unit (BCU) of 3,600. "

The Monthly Base Charge Unit (BCU) represents the gallons of sewer usage in an average residential household. This figure is needed to establish the base charge rates for sewer billing for our commercial properties. City Code requires that this figure be adjusted to reflect the actual average monthly wastewater flow.

Key to the Caribbean – Average yearly temperature 77° F.

## Sewer Rates for FY 2012:

The City Commission also establishes the wastewater rates for our residents and businesses each fiscal year. This proposed increase of 2.40% is below the current CPI of 3.5%, and this ordinance would establish the new base charge rate of \$23.79, a \$4.71 commodity charge, and \$8.71 Sewer well surcharge for FY 2012.

In order to effectively maintain our wastewater collection system and treatment plant, the City has established a long-term capital improvement and maintenance plan. The City also plans to maintain our current level of staff to operate our award-winning advanced wastewater treatment plant. Staff recommends that we adjust our rates near the CPI rate so that we can remain compliant with the City's fund balance reserve policy and keep up with inflationary costs.

## **Purpose and Justification:**

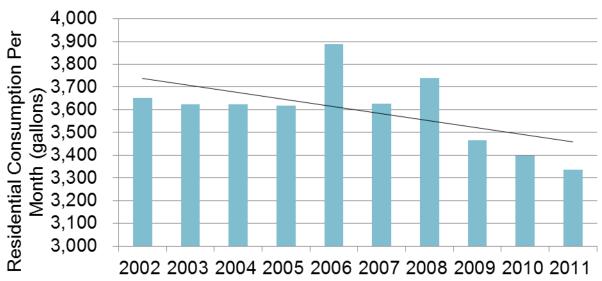
## Base Charge Unit (BCU):

In setting the FY 2012 sewer rate model, it was determined based on actual flow calculations that 3500 gallons would be a more accurate reflection of average monthly household wastewater consumption for the BCU.

	Calculated
Year	BCUs
1998	3,570
1999	3,765
2000	3,967
2001	5,265
2002	3,652
2003	3,625
2004	3,624
2005	3,619
2006	3,889
2007	3,626
2008	3,740
2009	3,467
2010	3,398
2011	3,335
Currently in Effect (2010)	3,600
3 Year Rolling Average	3,400
5 Year Rolling Average	3,513
7 Year Rolling Average	3,582

	June 2008 to	July 2009 to	June 2010 to
Description	May 2009	June 2010	April 2011
Water consumption for standard residential customers (Class 01, Service Code SE)	578,355,600	578,803,200	567,127,600
Divided by months	12	12	12
Average monthly water consumption for standard residential customers (Class 01, Service Code SE) (1)	48,196,300	48,233,600	47,260,633
Multiplied by Assumed Percentage Contributed to Wastewater System (2)	80.00%	80.00%	80.00%
Estimated Monthly Residential Flow to Wastewater System (gal)	38,557,040	38,586,880	37,808,507
Divided by Average Number of Residential Dwelling Units (3)	<b>1</b> 1,120	11,357	11,338
Yields Average Monthly Wastewater Flow for a Residential Dwelling Unit (gal)	3,467	3,398	3,335
Average Flow Rounded to nearest 100 gallons	3,500	3,400	3,300 recommend:
Average Monthly BCU for FY 2009 - FY 2011 (Rounded three year avera	ag 3,400		3,500

# **Trend in Monthly Residential Consumption**



For purposes of rate equity between residential and commercial customers, our City Code requires that the BCU figure utilized by the City reflects a figure that approximates the actual average gallons of household wastewater use. As you can see in the charts listed above, the residential consumption per month in gallons has continued to trend downward. Therefore, staff is recommending that our BCU count be reduced to 3,500 to represent a more accurate representation of monthly residential wastewater usage.

## Sewer Rates for FY 2012:

In setting the FY 2012 budget, the City plans on accomplishing the following goals:

- Begin work on the new North Roosevelt Sewer Force Main Project
- Begin repairs to some of our sewer trench failures in our roadways.
- Begin design of our energy-saving VFD project for our busiest sewer lift stations
- Meeting our debt service coverage requirements
- Continuation of our capital improvement plan
- Continued staffing of wastewater staff at current levels (OMI) to ensure a safe and effective level of service to maintain our collection system and operate our advanced wastewater treatment plant.

## **Options:**

## Base Charge Unit (BCU):

- The City may choose to maintain its BCU figure at 3600 gallons. This option is not recommended because the average gallons of wastewater consumed per household has been decreasing in recent years, resulting in our current tabulation being inaccurate. City Code requires that the BCU figure be adjusted to represent actual residential wastewater usage.
- 2) The City can reduce its BCU figure to 3500 gallons. This option will better approximate actual household sewer consumption, and will improve our rate equity between commercial and residential customers.

## Sewer Rates for FY 2012:

 The City may choose to maintain wastewater budget at current levels. This option is not recommended because it will hinder our ability to continue our wastewater capital plan, and result in delays in purchasing needed equipment and parts. It will also result in our inability to maintain our reserves in accordance with City policy in future years. Projected fund balances without rate adjustments are shown in the chart below. (R & R Reserve Balance reflects our funding requirements for capital projects, and Non R&R Cash Balance reflects our reserves)

Fiscal Year	R&R Reserve Balance	Non R&R Cash Balance	Reserve Target Range	
2011	\$4,103,000	\$2,181,000	\$1,505,000	\$1,881,000
2012	\$3,876,000	\$1,333,000	\$1,505,000	\$1,881,000
2013	\$2,259,000	\$745,000	\$1,547,000	\$1,934,000
2014	\$2,884,000	\$162,000	\$1,591,000	\$1,988,000
2015	\$2,453,000	(-\$1,067,000)	\$1,635,000	\$2,044,000
2016	\$2,962,000	(-\$1,145,000)	\$1,681,000	\$2,101,000

## **Projected Cash Balances –**

Without Rate Adjustments

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2) The City could forego a rate increase this year, and plan for future rate increases near the CPI rate. This option is not recommended by City Staff and our Rate Consultants because skipping just one year of CPI rate increases would result in our reserve fund balances being \$535,000 lower at the end of FY 2013. (\$1,053,000 versus \$1,588,000). A chart reflecting our fund balances under this scenario is shown on the chart below.

#### R&R Reserve Non R&R Cash Fiscal **Reserve Target Range** Year Balance Balance \$4,103,000 2011 \$2,181,000 \$1,505,000 \$1,881,000 2012 \$3,876,000 \$1,333,000 \$1.881.000 \$1,505,000 2013 \$2,259,000 \$1,053,000 \$1,547,000 \$1,934,000 2014 \$2,884,000 \$1,094,000 \$1,988,000 \$1,591,000 2015 \$2,453,000 \$819.000 \$1,635,000 \$2.044.000 2016 \$3,962,000 \$1,032,000 \$2,101,000 \$1,681,000 27 J I V 2011 0 2011 ARCADIS

## Projected Cash Balances -

No Rate Increase in FY12, Inflationary Thereafter

3) The City can approve a \$23.79 base charge, an \$8.71 sewer well surcharge, and a \$4.71 commodity charge for wastewater. This would be 2.40% increase for FY 2012. This option is recommended by City Staff as it would allow us to achieve the Sewer Department objectives for FY 2012, maintain reserves in compliance with City policy, and continue to maintain our wastewater system and WWTP effectively and in the safest manner possible. The chart on the next page reflects our fund balances should the City enact rate increases that keep up with the CPI index.

# Projected Cash Balances –

With Inflationary Rate Increases Each Year

R&R Reserve Balance	Non R&R Cash Balance	Reserve Targ	et Range
\$4,103,000	\$2,181,000	\$1,505,000	\$1,881,000
\$3,876,000	\$1,597,000	\$1,505,000	\$1,881,000
\$2,259,000	\$1,588,000	\$1,547,000	\$1,934,000
\$2,884,000	\$1,911,000	\$1,591,000	\$1,988,000
\$2,453,000	\$1,924,000	\$1,635,000	\$2,044,000
\$3,962,000	\$2,427,000		\$2,101,000
	Balance \$4,103,000 \$3,876,000 \$2,259,000 \$2,884,000 \$2,453,000	Balance Balance   \$4,103,000 \$2,181,000   \$3,876,000 \$1,597,000   \$2,259,000 \$1,588,000   \$2,884,000 \$1,911,000   \$2,453,000 \$1,924,000	Balance Balance Reserve rarg   \$4,103,000 \$2,181,000 \$1,505,000   \$3,876,000 \$1,597,000 ▼   \$2,259,000 \$1,588,000 \$1,547,000   \$2,884,000 \$1,911,000 \$1,591,000   \$2,453,000 \$1,924,000 \$1,635,000

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## <u>Overall:</u>

City Staff recommends the implementation of a 3,500 BCU (option #2 under BCU) and a sub-CPI rate increase of 2.4% (described in option #3 under sewer rates) for FY 2012.

## **Financial Impact:**

## Base Charge Unit (BCU):

Reducing the BCU figure has minimal impact to the revenues of the Sewer Fund as a whole. It could result in higher costs to some larger commercial properties should they maintain existing sewer flow. However, if commercial wastewater use trends towards conservation similar to what we have seen in residential wastewater use, then commercial entities that conserve wastewater should not see an increase due to adjusted BCU.

This move is not designed to increase revenue, but to ensure that we fairly allocate the cost burden between residential and commercial billing classes. It is a rate equity issue between residential and commercial customers that is required by our City code.

## Sewer Rates for FY 2012:

The financial impact of this proposed below-CPI rate increase would be as follows:

FY 2011 Budget		Proposed FY	Increase	% Increase
		2012 Budget		
Base Charge	\$23.23	\$23.79	\$0.56	2.40%
Commodity	\$4.60/thousand	\$4.71/thousand	\$0.11	2.40%
Charge	gallons	gallons		

The average household uses 3,500 gallons of sewer volume per month (based on 4,375 gallons of water use) <u>Therefore, the average Key West household would see just a \$0.95 increase per month on their wastewater bill. (2.4%)</u>

Average Monthly	Base Charge	Commodity	Total
Bill		Charge *	
FY 2011	\$23.23	\$16.10	\$39.33
Proposed FY 2012	\$23.79	\$16.49	\$40.28

\*based on an average rate of household sewer volume used

## **Recommendation:**

Staff recommends approving this ordinance that would reduce the City's BCU total to 3,500 gallons of wastewater consumed, and increase the sewer base charge to \$23.79 and commodity charge to \$4.71 for FY 2012.