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City of Miami Beach, 1700 Convention Center Drive, Miami Beach, Florida 33139, www.miamibeachfl.gov

COMMITTEE MEMORANDUM

TO: Finance and Citywide Projects Committee

FROM: Jimmy L. Morales, City Manager

DATE: April 25, 2013

SUBJECT: **DISCUSSION ON WATER CONSERVATION METHODS AND IMPLEMENTATION**

BACKGROUND

At the June 6, 2012 Commission Meeting, the discussion on water conservation methods and implementation was referred to the Finance and Citywide Projects Committee (FCWPC).

The Administration retained CDM Smith (formerly known as Camp Dresser & McKee Inc) to conduct a Water and Wastewater rate structure review in July 2010. The purpose of the study was to explore rate structure options beyond the current rate structure that would address two (2) goals:

1. Enhance water conservation
2. Assess the appropriateness of restructuring

Conservation water rates are an increasingly popular tool to influence water consumption behavior. The benefits of implementing conservation water rates include reducing water demand, saving capital infrastructure costs, and reducing energy costs and environmental impacts.

- Reduce peak daily and seasonal demands
- Reduce overall water consumption with resultant reduction in charges from Miami Dade County Water and Sewer Department (WASD)
- Conserve water during drought periods
- Allocate costs in a more equitable manner

The City was also being proactive as it was anticipated that an inclining block rate was going to be required by the Consumptive Use Permit issued to WASD by the South Florida Water Management District. However, the City is not required to adopt a conservation rate structure to be in compliance with the permit and it is not expected to be a requirement pending.

Based on the existing customer base and growth projections furnished by the City, the consultant projected customer growth by meter size (the existing customer billing classification), and number of dwelling units which may be the recommended customer billing classification.

Because revenues are affected when usage decreases, a utility must analyze its consumption patterns very closely to ensure that revenues will continue to be sufficient to cover expenses. Annual

revenue requirements were projected separately for the water system and the wastewater system, and on a combined basis.

CDM Smith evaluated various rate alternatives based upon the customer base and growth projections.

1. Alternative #1 - Elimination of the scaling capacity charges by meter size for single family residential customers.
2. Alternative #2 - First two blocks would be collapsed into a single block.
3. Alternative #3 - Employ existing water rate structure for Miami Dade Water and Sewer Department.

The current water rate structure does not promote water conservation, since a flat rate per 1,000 gallons of water used is charged regardless of the usage level. Moreover, the current water rate structure reflects what may be termed an "anti-conservation feature," in that a volume allowance is included in the minimum monthly charge irrespective of the actual usage.

The proposed alternative water rate structures will encourage water conservation at higher usage levels by increasing the cost of consumption through an inclining block structure. High volume residential and commercial users, such as hotels, will see their monthly water bill significantly increase. Low volume users, who are typically financially more vulnerable, would see their monthly water bill reduced. All customers would also be encouraged to conserve water since they no longer would have a "free allowance".

CDM Smith is proposing to maintain the existing wastewater rate structure, which is a uniform volume charge. The uniform wastewater volume structure complements the proposed restructured water rates, as it is already a conserving rate as far as its impact on customers.

CONCLUSION

The above information and attachments are provided to facilitate the discussion by members of the committee.


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