MEMORANDUM

Public Works Department

Date: March 9, 2017

To: Mayor and City Council

From: Marilyn DeRosa, Deputy Public Works Director (350-2660)
Tony Miano, Deputy Public Works Director (350-8297)

Thru: Don Bessler, Public Works Director (350-8205)

Subject: Utility Rate Study: Water/Sewer and Solid Waste Process and Policy Guidance

Background

In 2015, the previously separate rate studies for the Water/Sewer and Solid Waste utilities were combined into one biennial study with rate adjustment recommendations for two consecutive years beginning January 1, 2016. As we prepare for the 2017 rate study, there are several issues which we seek Council policy guidance on to ensure that the outcome of the rate study appropriately reflects Council's objectives relative to sustainability, cost recovery and fairness in pricing.

Policy Guidance Requested:

At the March 16th Work Study Session we will discuss and ask for guidance on the following issues:

Water and Sewer	Solid Waste
Residential rate structure ▪ Tier size ▪ Multiplier between tiers ▪ Number of tiers ▪ Sewer return flow credit	Residential rate structure ▪ Volumetric ("Pay-as-you-Throw") ▪ Pricing equity based on living unit type
Cost recovery ▪ Flood irrigation program	Cost recovery ▪ Commercial customers
	Residential service collection ▪ Same day collection ▪ Green barrel
	Development and plan review ▪ Building design impacts on trash collection ▪ Mandatory recycling

See Attachments A and B for background and explanation of concepts.

In addition, we will outline a proposed outreach and customer engagement process from March-October 2017 and seek Council's approval prior to moving forward.

The Triple Bottom Line

The environmental, social and fiscal objectives that comprise the Triple Bottom Line are interrelated in both utilities.

- **WATER and SEWER** – as an industry, continues to be a leader in conservation efforts. The more successful we are in promoting conservation, the less water we sell which translates into less revenue being generated in a utility where 80% of costs are fixed. This stress on the rates is coupled with the goal of providing high service reliability while factoring in aging infrastructure and resource scarcity issues. Also, as a life-essential resource, pricing of this commodity may have implications for what is considered "fair" and "equitable".
- **SOLID WASTE** – is a more complex business today than in years past. Environmental stewardship requires that we consider recycling and reuse goals, greenhouse gas emissions, and green organics in developing a business model that will have long-term sustainability. In order to achieve these objectives, we may consider changes to the pricing structure, service delivery and other programmatic changes that, in the short-term, can feel disruptive and stressful to the customer.

Policy Guidance

- **WATER and SEWER** – Beginning in 2016, the Water rate structure was revised to send a stronger conservation signal by compressing the volumes in the two lowest use categories and establishing lower rates in those categories, followed by a more rapidly increasing unit cost (multiplier) in the higher-use categories. In addition to conservation, this rate structure promotes affordability through a reduced rate in the lowest-use tiers.

  Through the rate study process, we can work towards a rate structure that more closely reflects Council's objectives. The policy guidance that we are seeking is to understand Council's priorities as they relate to balancing sometimes competing objectives:

  - Conservation
  - Green neighborhoods and the urban tree canopy
  - Equity in pricing
  - Affordability
  - Cost recovery such as in the flood irrigation program

  The direction we receive at the March 16th WSS will guide us in establishing an appropriate rate structure through factors such as the number of tiers, the multiplier between tiers, tier size, return flow credit, etc.

- **SOLID WASTE** – In Solid Waste, rising landfill costs, decreased recycling revenue and a 40% diversion goal require that we look at our pricing and service model in order to encourage more diversion and recycling. Strategies include:
    - Expansion of the green organic collection and compost program.
    - Alternative collection methods, specifically, moving to same day service where residents place both trash and recycling containers out for collection on the same day.
    - Alternative pricing models such as a tiered rate structure, sometimes referred to as "Pay-as-You-Throw". This concept incentivizes recycling by establishing different rates for different-sized trash containers. With Council direction we can explore these types of options through the rate study.
    - Zoned rates – This is an industry practice for commercial accounts. Staff recommends using the rate study to ensure that pricing is competitive and nimble for Commercial customers and recovers the cost of providing that service.

Public Outreach

Staff is proposing a robust public outreach process to ensure broad community engagement throughout the spring, summer and fall that includes the use of focus groups, public meetings and a webinar, as well as continuous marketing and digital outreach through social media and traditional print publications. In addition, staff will present to the Sustainability Commission and Neighborhood Advisory Commission. The rate study process typically concludes with rate recommendations in late summer/early fall which staff would then present to Council at a Work Study Session.

ATTACHMENT A

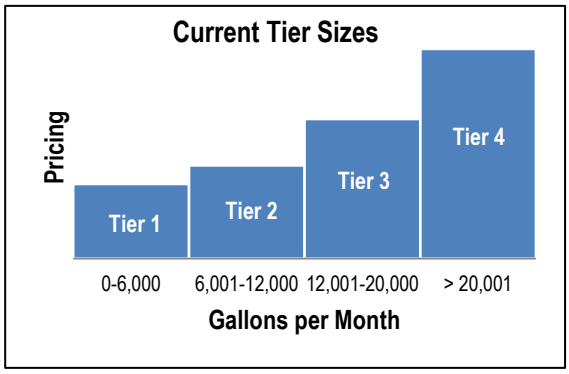
Glossary of Concepts for Policy Guidance

WATER and SEWER

This is intended to provide background and context for the discussion regarding items on which we are seeking policy guidance.

Tier Number

The current Single Family Residential (SFR) customer rate structure includes four tiers, as shown in the chart below. In general, by increasing the number of tiers to five or six, customers are provided additional pricing incentives to stay below the highest tier. Remembering that each successive tier is priced individually and progressively, fewer customers will reach the highest volume (and highest priced) tier each month. Only users with very high discretionary use will pay the highest unit prices.

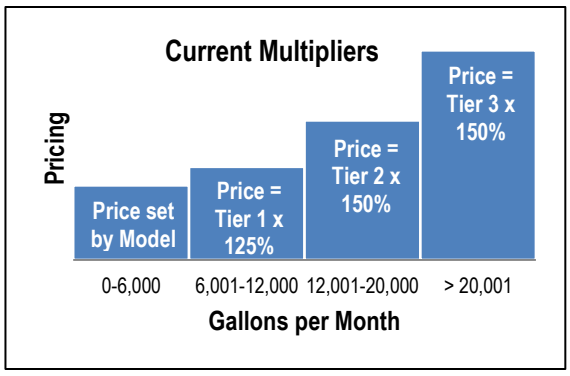


Tier Size

The current SFR customer rate structure sets the sizes of the tiers as shown in the chart to the right and as follows: all water use between 0 and 6,000 gallons is charged at the Tier 1 rate; all use between 6,001 and 12,000 gallons is charged at the Tier 2 rate; all use between 12,001 and 20,000 gallons is charged at the Tier 3 rate; all use above 20,001 gallons is charged at the Tier 4 rate. By increasing the size of the tiers (i.e. each tier accounts for higher volumes of use) more water use will be required for a customer to reach the highest priced tier. That is, fewer customers will reach the highest volume (and highest unit priced) tier each month. Creating larger tiers does not allow the customer as much control of their bill (by managing their use).

Multiplier

The current SFR customer rate structure includes four tiers increasing in price by a "multiplier." The financial model sets pricing for the first and second tiers based on customer use patterns. The subsequent tiers increase in pricing by a multiplier reflective of community values. The current multipliers are shown in the chart to the right. Lower multipliers have the effect of moderating the rate at which pricing increases, while higher multipliers have the opposite effect.



Return Flow Credit

This is a credit applied to a customer's sewer costs. Wastewater flows from SFR customers is not metered. As a result, customers are charged a wastewater volume rate based as a percentage of their metered water use, recognizing that all water used by a customer does not enter the sewer as wastewater. In general, SFR customers use significantly less water during the winter than the summer due to cooler temperatures and reduced outdoor water use. The rate model assumes that 70% of metered water used during the winter returns to the sewer as wastewater via toilets, showers, sinks, etc., inside the home, and uses this calculated volume for year round billing. As an example:

Customer's Average Monthly Water Use (January, February, March)	Approximate Percentage of Water Used Inside Home	Total Volume of Wastewater Used for Year Round Billing Calculation
15,000 gallons	70%	15,000 x 0.70 = 10,500

Some customers, however, have high outdoor use year round. By more closely evaluating how we apply the Return Flow Credit, the sewer rates applied to customers with high outdoor use throughout winter could be reduced.

Flood Irrigation

The flood irrigation program is a service that has been offered for many years. Since Salt River member lands have a historic right to use water, the cost of the program is for the service and infrastructure required to deliver the water to individual properties. The program is very popular in several historic neighborhoods and has many benefits to the community. These benefits include increased shade and neighborhood aesthetics, reduced heat island effects, and other qualitative values difficult to quantify. Council has been supportive of our continued work to ensure high quality service at low prices. For many successive years the program fees have not covered the program costs (current costs ~$600k while current revenue ~$300k). As a result, revenues collected for water and sewer services have been used to cover the flood irrigation program's deficits. Increasing fees for this program can reduce or eliminate program deficits but (as pricing increases) may result in fewer irrigated lots and, subsequently, reduced tree canopy.

ATTACHMENT B

Glossary of Concepts for Policy Guidance

SOLID WASTE

This is intended to provide background and context for the discussion regarding items on which we are seeking policy guidance.

Tiered Rate or "Pay-as-you-Throw"

The maps below provide an example of how Pay-as-you-Throw would work in alleyways. In the example, there are 16 homes. Map A, with the red dots, shows current service levels, with seven 300-gallon trash containers, equaling approximately 130 gallons of volume per residence compared to single family residential volume, currently at 96 gallons. If 70% of residents opt into the Pay-as-you-Throw program along the alley, they would receive an incentive on their bill for reducing containers or in the example, going to four 300-gallon containers, as shown in Map B, equaling around 75 gallons per residence. Rolling this out would require extensive outreach and communication with alley residents to reach consensus to opt-in. Another consideration would be spacing and walking distance for service.

Map A

Map B

For residents without alleys, Pay-as-you-Throw would offer lower volume trash containers to choose from, such as a 65-gallon or 48-gallon to received increased incentives. There would be no incentives for the 96-gallon containers, which are used currently by most residents. All residents regardless of alley collection or curbside collection receive a 96 gallon blue recycling container. Staff is also piloting a 96 gallon green container for weekly green organics collection to approximately 1000 households.

Same Day Collection

This option would modify service so that trash and recycling collection occur on the same day. This has proven to be a cost-saving strategy for many communities across the country. It has also proven to help increase recycling volumes. This would represent a major change in program logistics for single family residences and Council should expect significant challenges from some individuals. This approach would require a robust communication and outreach strategy to ensure residents are made aware of such a significant service change.

Zoned Rates

Zoned rates are used across the industry to provide competitive pricing. The map below provides an example of what a zoned rate approach would look like for Commercial service. Zones would be established based on their distance from the service yard, transfer station and customer location. The further a customer is from the base (the star), the

higher the costs to customers, since it is more expensive to collect. The red zone would be the least expensive, while the yellow zone would cost the most.