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# Board of Supervisors Memorandum

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April 18, 2017

## Regional Wastewater Reclamation Rate Increase

### Introduction

On April 10, 2017, I forwarded a memorandum to the Board of Supervisors transmitting the Raftelis Financial Consultants Rate Structure Study. As you recall, a request was made to provide this study in draft; and it has not been reviewed by the Regional Wastewater Reclamation Advisory Committee (RWRAC), our technical staff, or the public. The purpose and general findings of the Raftelis Study were summarized in my April 10 memorandum.

At the April 18, 2017 Board of Supervisors meeting, there will be a continuation of the Public Hearing where the Board will consider increasing the sewer user fee and the connection fee.

The purpose of this memorandum is to provide the Board with additional information relevant to your decision whether to increase user and connection fees to support the financial stability of the Regional Wastewater Reclamation Department (RWRD).

### Turning Sewage into Water is Expensive

Historically, the typical residential sewer bill has been lower than the water bill. Increases over the last few years have now made the sewer bill similar to a typical residential customer's water bill. This increase has been necessary due to the reconstruction of our two major RWRD treatment facilities to meet environmental discharge standards.

To provide an illustrative example of the costs involved in wastewater treatment, it would be instructive to use the recently transferred cost of the Marana Wastewater Reclamation Facility (WRF) to the Town of Marana. As you will recall, the Town of Marana purchased the WRF from the County for \$18.2 million and debt financed the acquisition. A recent news article indicated the Town of Marana will spend another \$21 million to increase the capacity of the WRF from 0.7 million gallons per day to 1.5 million gallons per day. When the capital cost of initial acquisition is added to the expansion cost, Marana has spent \$39.2 million to purchase and upgrade this relatively small WRF. After the Town transfers the Saguaro Bloom community to the Marana WRF, it is estimated the Town will serve approximately 2,500 wastewater customers. The debt service on a \$39 million investment will be an average \$2.5 million per year. The last expansion was financed for a period of 25 years. Operating and maintenance costs are also significant.

The County operates a similar sized facility at Corona de Tucson. This 1.3 million gallon per day facility costs \$800,000 per year to operate.

With insurance, overhead, biosolids handling, contract laboratory services and other costs, it is likely the Marana WRF should cost approximately \$1 million annually to operate and maintain. Adding this to the \$2.5 million annual debt service cost yields \$3.5 million per year. This means the annual per-customer total cost would be nearly \$1,400 per year, or \$116 per month.

By comparison, Pima County's regional system has an annual debt service of \$75.4 million, operating and maintenance costs of \$83 million, and 274,400 customers. Using the same calculations as the Marana WRF, our cost per year, per customer is \$577, or \$48 per month. It is important to note that our debt service is expected to significantly decline within the next six years as our debt begins to be rapidly paid off. This will make future user increases less likely or much smaller than what would have occurred normally.

Other Utility Fee Increases

Pima County has not increased wastewater user or connection fees since 2013 – or four consecutive years. Other utilities, however, have increased their rates. While there are many different classes of users and rate structures, the most simplistic comparison is to compare only the residential rates of these utilities. The table below indicates the utility and the percentage increase for the typical residential user over the last four years.

**Various Utility Rate Increases Since 2013.**

Utility	Percentage Increase Since 2013
Tucson Water	32.6
Tucson Electric Power	30.9
Metropolitan Water	11.3
Southwest Gas	2.8
Pima County RWRD	0.0

Clearly, the request for a four percent increase in sewer user fees and a 2.6 percent increase in sewer connection fees is a modest request.

Reducing Fee Increases by Extending Debt Repayment Period

On several occasions, we have been asked about the impact of extending the debt repayment period on the monthly sewer user fee. The answer is that it would reduce this cost, depending upon the debt period selected. Debt would be paid for much longer, also depending on the years selected. The County has a longstanding fiscal management practice to issue long-term debt for no more than 15 years. This timeframe is optimal in balancing the term of debt repayment and minimizing total interest paid.

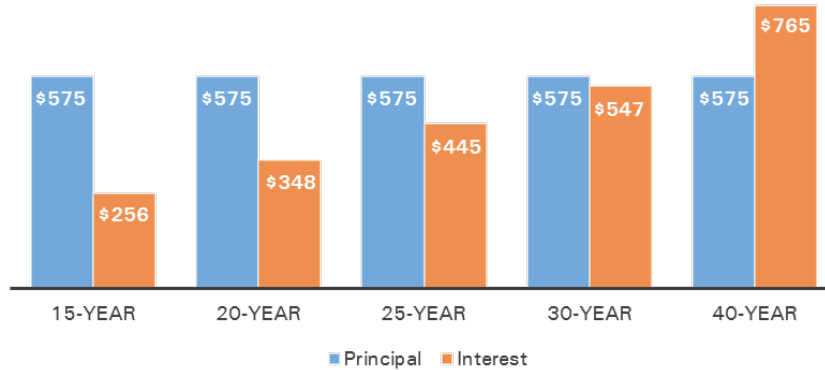
Pima County historically issues long-term debt with repayment periods of 15 years or less to finance capital improvements. This relatively short-term repayment period has several advantages. Interest costs are lower because interest is paid for a shorter period, and interest rates for shorter-term borrowing are lower than interest rates for longer-term borrowing. Additionally, shorter-term borrowing helps maintain the County's excellent credit rating, which makes it easier to borrow money when needed and further reduces interest costs. Shorter-term borrowing enables the County flexibility to handle unforeseen future financial needs.

There is no standard repayment period for large wastewater capital projects. Rather, each wastewater utility considers its own unique circumstances, financial position, and long-term debt philosophy when determining their debt repayment period. Pima County's debt structuring avoids intergenerational debt, since we repay debt in 15 years or less. Some wastewater utilities choose 20, 25 or 30 year repayment periods. Some utilities try to match their repayment period to the actual useful life of the assets and consider issuing debt with a 40-year repayment period. Such extended debt financing makes ratepayers pay much more over time. The argument for longer-term borrowing, such as for 30 or 40 years, is that annual debt service payments are typically smaller. Because such debt structure is longer, interest rates are much higher than for shorter-term debt and ratepayers must pay significantly more in total debt service costs.

To pay for Pima County's sewer system Regional Optimization Master Plan (ROMP), the County over a five-year period issued \$575 million of debt in five separate debt issuances, each with a 15-year repayment period. Had the County issued the debt with 20, 25, 30, or 40-year repayment periods, interest on the debt would have cost the County an additional \$92 million, \$189 million, \$291 million or \$509 million, respectively. Much of these additional costs would be paid by future generations of sewer system users. The short-term savings from extending the debt is not worth these additional costs.

Below is a graph that illustrates the debt service payments on the \$575 million debt issued for the ROMP. As can be seen, the selected debt service period of 15 years carries an interest cost of \$256 million, contrasted with a 40-year debt service payment plan where interest exceeds the principle borrowed at \$765 million. Simply adding 5 years to the existing 15-year debt service plan requires an additional \$92 million in interest payments. Obviously, I continue to believe a 15-year repayment period is optimal.

### Debt Service Payments on \$575 Million



#### Purpose of Raftelis Financial Consultants Rate Structure Study

The general purpose of the Raftelis Study was to examine the overall rate structure, the balance between fixed and variable costs and charges, and to determine whether there was an imbalance in user payments by class or customer. The short answer to the Raftelis Study is that it points the wastewater utility in a direction of increasing fixed revenue charges as opposed to variable charges and suggests that commercial users are paying less than their fair share as compared to residential users. It is expected that as the preliminary Raftelis Study is reviewed by the RWRAC, County staff and the public, certain recommendations will be made to the Board regarding increasing fixed revenue charges and shifting costs from residential to commercial users.

#### Recommendation

I recommend the Board of Supervisors increase Regional Wastewater Reclamation user fees by four percent and sewer connection fees by 2.6 percent. (Supervisor Elías suggested a four percent sewer connection increase; however, the Raftelis Study was modified to include connection fees and the highest connection fee that can be justified at this time is 2.6 percent).

Respectfully submitted,

C.H. Huckelberry  
County Administrator