



Memorandum

To: Mayor, Town Council
From: Rick Wixom
Date: June 17, 2022
Re: **June 22, 2022 Town Council Meeting**
Discussion on Enterprise Funds and User Rates

I've discussed with the Council on a few occasions the need to have a conversation about the various enterprise funds, the financial sustainability of those funds, and the user rates and fees that provide the revenues for them.

The Town has three enterprise funds: culinary water, secondary water (irrigation) and sewer. While there are some common concerns that affect them generally, each of these funds have specific issues and potential resolutions that we'll explore through this discussion. First, some background on each fund.

Culinary Water Fund

This fund includes revenues and expenses related to the operation of the culinary water system. This system's assets include a portion of the diversion structure, piping and pumps that divert water from the Virgin River, a portion of the pumps and piping that deliver water from a spring and well, the water treatment plant, several water tanks, and approximately 20 miles of distribution water pipe. Water is diverted from the various sources, treated in the water treatment plant, and delivered to users in the community.

Secondary Water Fund

This fund includes revenues and expenses related to the operation of the secondary water system. The fund's assets include a portion of the diversion structure, piping and pumps that divert water from the Virgin River, a portion of the pumps and piping that deliver water from a spring and well, approximately 7.7 miles of distribution system, and a storage tank. Users of the fund include Town properties and town irrigation customers. Shareholders in the Springdale Consolidated Irrigation Company (SCIC) also use this fund's infrastructure to access the water owned by the SCIC.

Sewer Fund

This fund includes revenues and expenses related to the operation of the town's sanitary sewer system that collects and treats wastewater within the Town. The fund's assets include approximately 15 miles of collection pipe, the lagoon treatment facility west of Rockville (including the buildings, UV system, and aeration components), and various flow meters. Wastewater flow is collected through the system, treated and disinfected in the lagoon facility and eventually discharged back to the Virgin River. The system also treats wastewater from Zion National Park and several connected properties in Rockville.

General Issues

The major general issue facing our utility systems and enterprise funds is one of scale. Springdale is a small community with large utility impacts due to its proximity to Zion and the influx of its transient tourism population. A community of 600 people would not need the amount of infrastructure necessary to also meet the needs of millions of visitors each year or systems that are able to provide the vastly differing levels of service in January than what we face in May through September.

Setting user rates is in theory a straightforward process. The system identifies the amount of revenue needed to meet anticipated expenses of the system. These expenses include, but are not limited to, personnel, operating and maintenance expenses, utilities, insurance, bad debt and other system related expenses. The system then sets rates sufficient to meet those anticipated expenses. The State recently changed its rate setting statutes. Water rates in municipalities are now required to be set or modified by ordinance of the legislative body, and updating our ordinances with the various rate structures will be coming soon. Municipalities may set different rates for different classifications of customers if there is a reasonable basis to do so as outlined in the code.

User rates are often broken down into base rates and usage rates. In a more typical community (not a high seasonal area with few connections), the base rate would be calculated to cover all the fixed costs for a utility and usage rates would be used to cover variable expenses or those expenses that change as the system produces more water. Trying to apply all fixed costs to base rates is great when a system has several thousand customers but much less effective when we have as few customer accounts as we have.

Conservation pricing is a term that describes a tiered rate structure in which the user pays more for water as they move up the tiers. Springdale has such a system now for culinary water, but not for irrigation or sewer services. This pricing is intended to drive conservation through the economic indicator of higher water bills. The State now requires conservation pricing in culinary water systems. While this system might be effective for some users, it may not be as effective in situations where the rate payer doesn't have ultimate decision making in terms of water use. For instance, hotel customers decide how much water they use, but don't see the underlying water pricing. They do see their room rate, which includes factors such as hotel operational costs, but the connection between water used and water billing isn't clearly seen or understood. So, other tools are necessary to promote conservation in this situation.

Depreciation is an issue that affects many systems, including ours. Typically termed a "paper" expense, depreciation represents the reduction value of an asset over time due to factors such as use, wear, and tear. Depreciation is booked as an expense in our financial statements in each enterprise fund. In theory, if an entity were able to fully budget for depreciation, at the end of the usable life of an asset, the entity would have sufficient money on hand to replace the asset. Like many other communities, we are not able to fully budget for depreciation in the enterprise funds. We have a small renewal and replacement fund in the water system, but not in the irrigation or sewer funds.

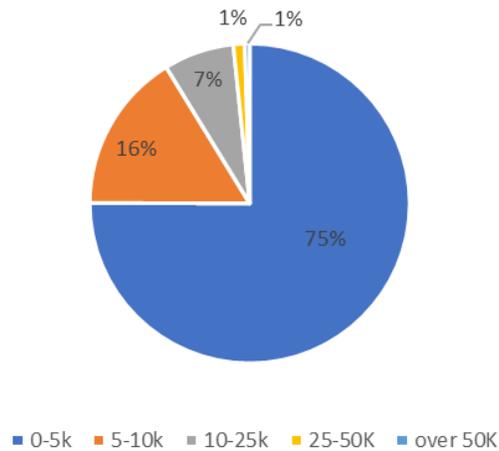
Users and User Rates

The following analysis uses data and information from fiscal year 2021 (July 2020 to June 2021). The data seen is consistent with data analysis in previous years in terms of users, usage, and percentages.

We categorize users into residential or commercial accounts. Culinary users are also broken down into usage tiers discussed above (0-5k, 5-10k, 10-25k, 25-50k, and more than 50k gallons per month).

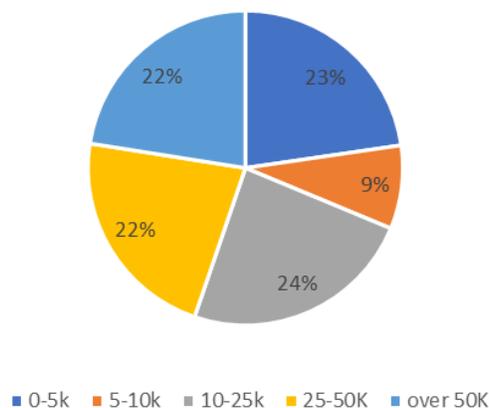
In 2021 most residential users (75%) fall into the lowest water use tier. The average usage for this group during 2021 was about 1,700 gallons per month. In the second tier (5-10k gallons) there are 16% of the system users with an average use of 6,800 gallons per month. Residential users in the top tier used 99,206 gallons per month during 2021.

Residential Usage Tiers



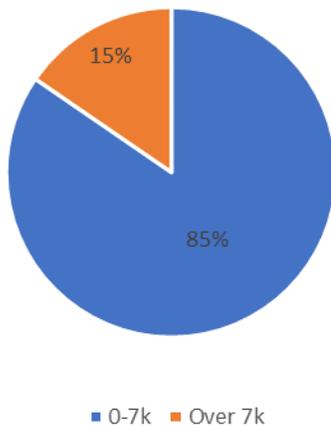
In contrast, in 2021 commercial users are more evenly spread through the usage tiers as shown below. The 23% in the lowest tier have an average usage of 1,200 gallons per month while the 22% in the highest tier have an average use of over 120,000 gallons per month.

Commercial Usage Tiers

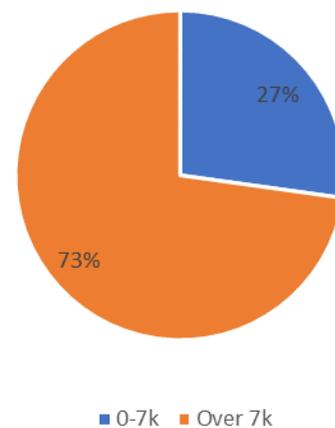


Users of the sewer system are also categorized into residential and commercial accounts. In the sewer fund, rates are presently tiered into two tiers, less than 7k gallons per day and greater than 7k gallons per day. The following charts show the breakdown of users in these two tiers.

Residential Usage Tiers



Commercial Usage Tiers



Specific Fund Issues

Culinary Water Fund

The single most significant issue facing the culinary water fund is keeping the fund current with rising costs. The second most significant issue is for the fund to have sufficient revenues to cover depreciation and position itself for future needed improvements and replacement of capital assets. As assets are depreciated, the fund needs to be able to repair and eventually replace those assets. Fund depreciation in 2021 was \$391,365 and is anticipated to increase in future years. We are not able to budget for depreciation but are able to (and required to) budget for a smaller renewal and replacement fund. This replacement fund budget amounts to 5% of annual operations and maintenance costs, or about \$53,800 in FY2022. The inclusion of the renewal and replacement fund was a requirement of the State imposed in 2009 as part of financing the water tank and pipeline project that year.

Cash flow in the fund, when accounting for depreciation as an expense, is negative and could be an issue for the Council to look at. Because depreciation is not a “real” expense, actual cash flow is not negative, but the fund is not necessarily setting aside sufficient resources to provide for the replacement of assets. When depreciation is applied in our financial statements, the year is shown with negative net income.

To understand the scope of this issue, to fully fund depreciation or an amount equal to \$391,365, current water rates (base and usage) would need to increase by approximately 41%. This would equate to the following impacts on average users:

Tier	# Residential Users	Residential Average Monthly Increase	# Commercial Users	Commercial Average Monthly Increase
0-5k	255	\$10.99	30	\$10.55
5-10k	55	\$23.96	11	\$25.29
10-25k	24	\$50.57	31	\$60.08
25-50K	4	\$101.74	29	\$145.79
over 50K	2	\$447.27	30	\$552.34

This is not a recommendation for action but provided to give information to the Council to aid in your discussion.

Irrigation Fund

Years ago, secondary water (irrigation) revenues and expenses were included in the culinary water fund. However, because the systems are two different systems with two different purposes, an irrigation fund was created, and revenues and expenses directly related to irrigation were booked to the new fund.

The irrigation fund is our most unsustainable fund, at least at present. This is caused by similar issues affecting the other funds, only on a larger scale. The fund relies on transfers into the fund to remain financially balanced. For several years, this transfer has come from the General Fund. This is not wholly inappropriate, because some of the properties irrigated by this fund are public properties (cemetery, ball field, town parks, town properties) and the public are the users that would otherwise be paying user fees. But the scale of those transfers should be concerning.

The user base for the irrigation fund is significantly smaller than the user base of either the water fund or sewer fund. As of today, there are 85 irrigation users (town customers) who are rate payers in the fund, along with the SCIC which pays a portion of fund maintenance based on contractual obligations between the SCIC and the Town.

Irrigation user rates are flat rates based on the size of the irrigation connection (e.g. 1", 1.5", 4" etc.) and are not usage-based. Present rates are as follows:

Connections	Users	Rate/Year
1"	81	\$254
1.5"	3	\$508
4"	1	\$1,779
	85	

In 2021 the Town installed secondary water meters on all town property and town customer connections. When looking at average seasonal water use (March – May 2022 at this point) the secondary meters have shown the following average monthly usages per connection size:

Connection Type	Average Monthly Use
Town Properties (2")	130,413
1"	16,833
1.5"	160,709
4"	528,888

This usage will continue to be tracked through this and future irrigation seasons.

The Council may want to look at changing from a flat rate user fee to a usage-based user fee that can provide for the use of water in the fee or increase the fee as usage goes up. As discussed above, conservation pricing, or pricing that goes up as more water is used, is a common tool in allowing market forces to help with water conservation. A flat rate does nothing to promote conservation in water use.

Sewer Fund

As with the water fund, the sewer fund is not able to budget for depreciation. Fund depreciation in 2021 was \$79,300. As with the culinary fund, when depreciation is not included as an expense, the fund's net income in 2021 is positive. When depreciation is added, the fund's net income is a negative \$49,500 (as reflected in the financial statements for 2021).

In order to fully cover depreciation, assuming no other changes to the fee structure, sewer fund user rates (base rate and usage rate) would have to increase by approximately 24%. As with the water fund discussion above, this is not a recommendation for action but provided to give information to the Council to aid in your discussion.

At present there is little conservation pricing within the sewer fund. Having only two tiers, less than and greater than 7,000 gallons, there is little economic pressure to use less water, or put less water into the sewer system. The Council could consider modifying the rate schedule to use the same tiers as the culinary water system (0-5k, 5-10k, 10-25k, 25-50k, and more than 50k gallons per month). While culinary usage rates charge for all water used, it has been the practice of the Town to include an amount of wastewater in the sewer base rate. As shown above, between 72% and 91% of residential customers use less than 7,000 gallons of water per month and between 23% and 32% of commercial customers are in the lower tier.

If the sewer fund usage tiers were changed to match the culinary usage tiers, the residential users on average would remain primarily within the lowest tier and commercial users would be more evenly spread throughout each tier.

The current usage rate for the sewer fund is \$3.83/1000 gallons of water used for usage in excess of 7,000 gallons. Modifying the sewer fund rate structure to have similar tiers as our culinary usage rates, including keeping the first tier within the base rate, and having a 15% step between

tiers, would accomplish the same financial goal as modifying the current rates schedule by 25% and not raise sewer rates on the vast majority of customers.

under 5k	included in base	15%
5k to 10k	\$3.83	/1000 gallons
10k to 25k	\$4.40	/1000 gallons
25k to 50k	\$5.07	/1000 gallons
over 50k	\$5.82	/1000 gallons

The second major issue facing the sewer fund is the additional revenue needs of the sewer filtration/headworks project. At this point we are anticipating a project of approximately \$3.72 million. If we are successful in our proposed application with the Division of Water Quality, we anticipate that about half of that will be principal forgiveness and half will be financed. Anticipating some standard bond terms (2.5% interest, 25 years) we estimate a new debt service of about \$102,000/year. Another sizable increase, but one that is necessary to fully comply with our State permit requirements.

Discussion Topics

Below are several topics the Council could discuss and provide guidance and direction on.

- The scope and pace of ongoing rate increases in all funds. While we should at least keep up with rising costs based on the CPI and other metrics and provide for the replacement of assets, fully budgeting for depreciation may not be realistic.
- Creation of a renewal and replacement fund in the Sewer Fund. I anticipate that the creation of this fund will be a requirement of any State funding related to the sewer lagoon filtration project.
- Modifying the sewer fund rate schedule to match the usage tiers in the Culinary Water Fund.
- Modifying the irrigation rate schedule to provide for usage-based billing. While this will be a large impact on users, the present flat-rate schedule does not provide any incentive to conserve water.

I realize that this is a lot of information and thank you for your attention and consideration. While it's not practical for the public meeting, I'd be happy to go through the various spreadsheets and background data if you are interested.

Please let me know if there is additional data or information you would like to have prior to your meeting, or if you have any specific questions about the information in the memo.