

Enterprise Funds Analysis

(I) Sanitary Sewer Fund

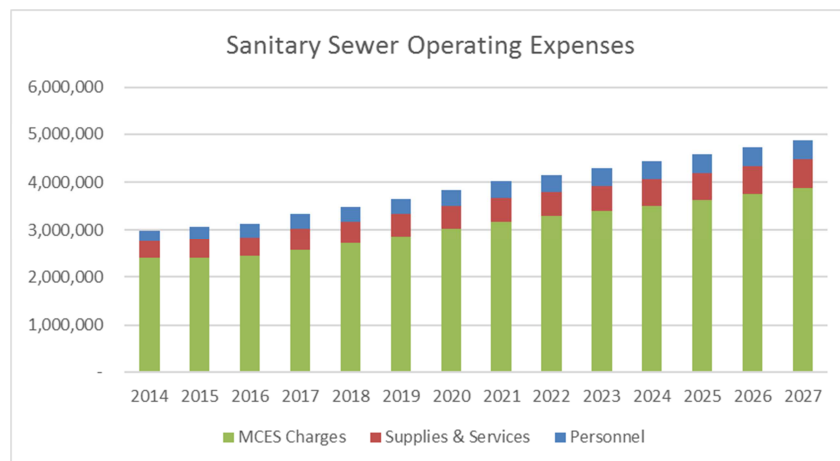
Background

The City Council requested staff to take an in-depth analysis of the city's enterprise funds. Both the Sanitary Sewer and the Storm Drainage funds have had healthy fund balances over many years. Over the last few years the Sanitary Sewer Fund (fund) has seen a steady decline in cash balances. While a study on a rate analysis is necessary, an integral part of the study is to determine an appropriate cash balance level based on anticipated operating and capital expenditures.

The goal of this analysis is to determine our current financial condition and to continue building upon our strong financial and operational foundation while maintaining moderate utility rates.

The Metropolitan Council Influence

The City of Shakopee participates in the Metropolitan Council Environmental Services (MCES) sewer system. This means that the city's sanitary sewer system flows to the MCES treatment plant and the city receives a bill from the MCES for the service. The city does not maintain its own sanitary sewer treatment plant. MCES allocates the cost of the metro area sanitation system to a user city based on the relative percent of the city's flow into the system. The MCES disposal charge is the single biggest expense in the fund and comprises almost 77% operating expenses, excluding depreciation. The graph below breaks out the sanitary sewer operating expenses. The city's portion operational costs shown in red and blue below remain relatively stable over the fourteen-year timeframe. The MCES charges is the main expense driver, increasing a projected \$1.5 million from 2014 to 2027.



For 2017, the MCES charge for service is \$2,578,100 and estimated to increase five percent to \$2,707,000 in 2018. MCES has indicated that increases in the five percent range are expected for the next several years. Our analysis includes five percent MCES rate increases through 2021.

For 2017, the MCES charge of \$2,578,100 equates to a per thousand charge of \$2.53 based on 1.2 billion gallons of water sales. The city's current sewer flow rate is \$2.42 per thousand. The city is subsidizing users \$0.11 for every thousand gallons billed. This structural imbalance needs attention.

Capital Outlay

The second biggest expenditure in the sewer fund is capital purchases, most of which are designated for replacing and installing sewer mains under road reconstruction projects. Sewer lining projects and other rehab projects are also accounted for in these capital purchases. The City's overall sewer infrastructure system is in excellent condition. This will be highly advantageous in maintaining long-term modest sewer rates. As of 2016, 93 percent of the sewer system is comprised of lined, reinforced fiberglass or polyvinyl chloride pipe. Beyond 2021, infrastructure repair and replacement is expected to be curtailed significantly.

The city's current rate structure includes a monthly flat fee of \$6.50 per account. This flat fee is intended to cover infrastructure costs. The flat fee is expected to generate about \$830,700 in 2017. The 2017 budget is anticipating \$1,700,000 in capital expenditures. Capital outlay expenses ebb and flow as some years have more projects than others, so having one or two years of projects that exceed revenue coming into the fund is not detrimental. However, for the years 2014 thru 2020, actual and anticipated annual capital expenditures are averaging \$1.35 million.

Annual depreciation for the fund is approximately \$825,000, which almost mirrors the anticipated flat fee revenue for 2017. Depreciation can be a tricky item. From a budget perspective, it is often easier and more understandable to ignore depreciation and just work with the items that affect the actual cash balance of the fund, such as capital improvement projects.

Working Capital (Cash Balance)

Technically speaking, working capital is current assets less current liabilities, but in general terms working capital typically refers to cash on hand.

The city's current policy states that enterprise funds should maintain a working capital or cash balance of three to five months operating costs and to have at least as much as the amount of the fund's accumulated depreciation. Based on 2016 activity for operations and capital outlay, the funds working capital needs are about \$16,000 per day. The city's current policy requires the fund to have approximately \$15.8 million available in cash reserves. Based on the working capital needs of \$16,000 per day, this equates to having enough cash on hand to operate for 1,095 days or three years.

Researching best practices by the Government Finance Officers Association (GFOA) along with several policies within the metro and across the country, this amount of reserves is unprecedented. GFOA's best practices has issued general working capital benchmarks for enterprise funds, but as with any best practices benchmarks one size does not fit all and should be modified to meet each entity's specific needs. GFOA recommends that under no circumstances should the target for working capital be less than 45 days.

Below are several key items to consider when establishing a working capital guideline:

- Cash Cycles – Cash cycles are consistent with sewer billings with collections occurring monthly. Monthly cash flow enables the fund to cover our operating and capital outlay. Capital outlay expenditures typically occur in the summer and fall, which requires additional cash needs.
- Expense control – If there is a dramatic decrease in revenues, how much control does the city have in adjusting fixed or variable expenses? MCEs is a fixed annual fee, the city has control

over capital outlay and operating costs outside of MCEs charges. Future years' capital projects can be more easily shifted or delayed.

- What is the age and condition of our infrastructure? Age and Infrastructure is in above average condition with future capital outlay expected to decrease.
- Debt position – Very fortunate not to have any outstanding enterprise debt.
- Rate control – The City Council has control over setting sewer rates versus having some other oversight board controlling rates. We have the benefit of local control.

Based on the city's goals and historic practices of maintaining reasonable rates and not relying on continuous debt issuances for capital outlay, the sewer fund's working capital target will be higher than a lot of other cities. Cities that issue debt regularly will rely upon bond proceeds to cover annual capital outlay. The city's goal has been and should continue to be that routine capital outlay projects be funded with cash reserves. The definition of routine capital outlay is normal sewer reconstruction related to street projects, sewer lining projects and other rehab type projects.

If the city were to have the need to replace or reconstruct something outside of these type of capital projects that puts a severe strain on cash balances moving forward, bonding may be a necessary option. This type of project will most likely be something that benefits future users of the system as well. So rather than having current users paying increased rates to fund a nonroutine project that may or may not happen, it may be prudent to have the actual future users of the system pay for a project of this nature through bonding.

Fortunately, the city's infrastructure is in above average condition. One project our City Engineer Bruce Loney is keeping an eye on is the force main from L16 to the Blue Lake Treatment Facility. The scope of work and timeline are not known and may not happen for several years, but this is a type of project that may put excess burden on the fund's working capital.

It is anticipated that as new developments come on-line, developers will be responsible for paying and installing new infrastructure. Trunk sewer fees are also expected to cover the cost of any needed infrastructure oversizing.

Staff is recommending the sewer fund's working capital target a range between 50 and 100 percent of operational expenses excluding depreciation expense plus 10 percent of accumulated depreciation. The policy should also account for the current year's debt service (if any). This level of working capital is anticipated to provide between 270 and 425 days of working capital. As previously mentioned, the higher working capital will allow the city to pay for routine capital outlay on a cash basis and weather the ebbs and flows in capital expenses each year.

For 2017, the working capital target would range from \$3.1 to \$4.8 million. The anticipated cash balance at December 31, 2017 is \$6.7 million.

Rate Analysis

The Sewer Fund is projected to have an end of year cash balance above the proposed target ceiling. As mentioned earlier, the fund is subsidizing users on every unit of sewer sales. This subsidy will continue to erode the cash reserves until it is eliminated. I am providing the council with three different scenarios which analyzes the cash balances against the working capital target range.

The assumptions for all three scenarios are the same and the include:

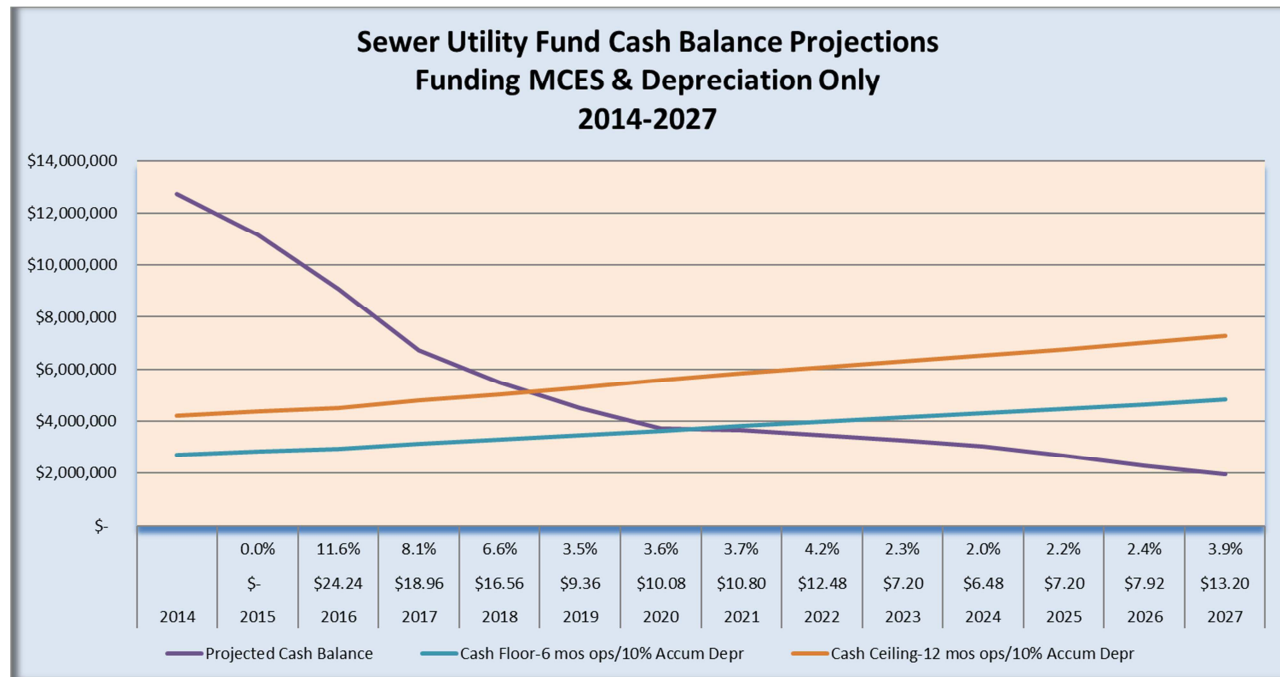
- Residential usage is 6,000 gallons per month
- Annual MCES disposal charge increases of 5% for 2018-2021, 3% thereafter
- City inflationary costs of 3%
- Growth of 100 residential units in 2019, 75 units in 2020 and 50 units per year thereafter.
 - The addition of 100 residential units in 2019 would result in only \$27-28,000 of new revenue, with about 70% of this revenue directed toward MCES charges. 100 units is less than 1 percent of our total customer base.
- Capital outlay beginning in 2021 is curtailed due to the decrease in need for sewer rehab.

Scenario 1

The first scenario continues the current rate structure with a slight modification. The flow rate is adjusted to match the flow rate charged by MCES. Rather than subsidizing users by the current \$0.11 per thousand, the city would breakeven. The fixed rate would remain at \$6.50 per account per month with \$0.50 increases every five years. The fixed rate revenue would continue to match the annual depreciation expense.

Depreciation expense is not a cash outlay so in essence the fixed revenue is paying for the yearly capital outlay and any city operating expenses outside of depreciation and the MCES disposal charge.

In the chart below, the annual rate increases are included above each year along with the annual percentage change in sewer billings for an average household utilizing 6,000 gallons of water per month. 2018 experiences a 6.6% or \$16.56 annual increase due to the elimination of the MCES subsidy. Thereafter rate increases are mostly driven by MCES disposal charges. In this scenario cash balances are quickly depleted with a serious deficiency in operational solvency.

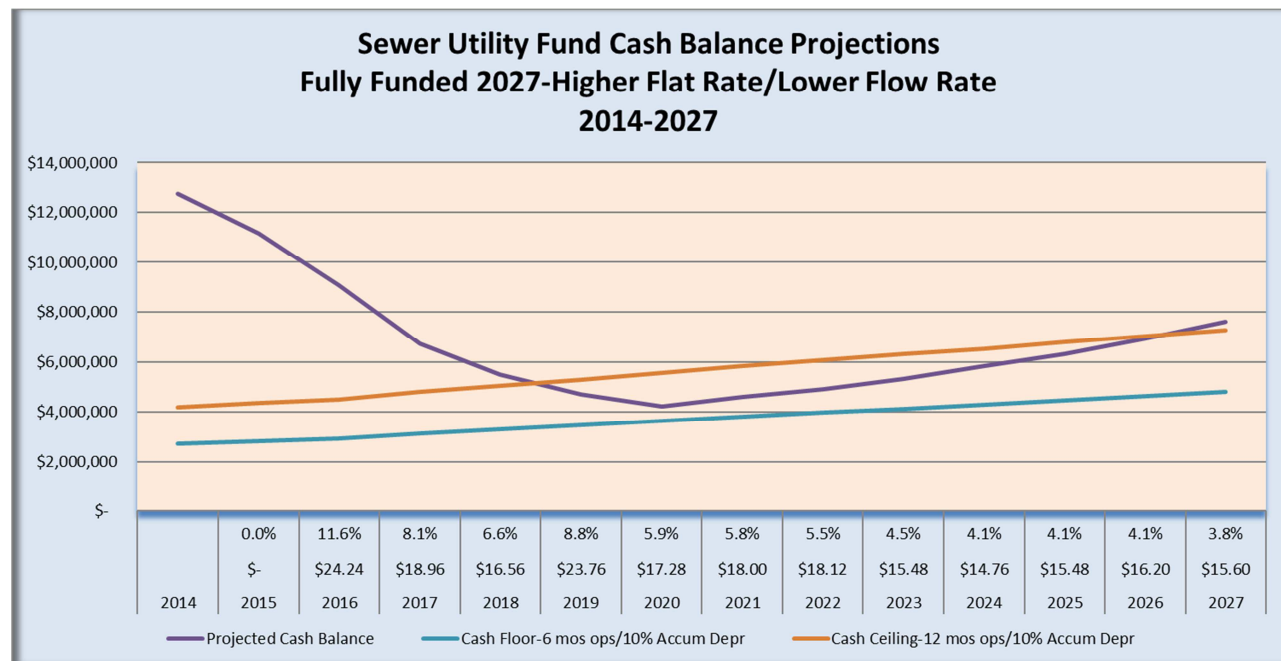


Scenario 2

The second scenario splits the traditional flow rate into two separate categories, a city flow rate and an MCES flow rate while matching the fixed rate to the number of households divided by the annual depreciation expense. Staff has noticed that cities are beginning to adopt this second flow rate that is directly attributable to MCES into their rate structures mainly due the high proportionate share of the operational costs that is not in the city's control. Operational costs for this scenario are phased in over several years with full funding not achieved until 2027. The MCES rate is fully funded in 2019, the flat rate in 2022 and the city rate not until 2027. The yellow highlighted numbers are the years the specific rate type is fully funded (revenues supporting all expenses). The city rate increases \$0.10 per thousand per year until 2027, after which the rate increases moderate to about \$0.02 per year. The below table provides partial look at the proposed change in rate structure along with projected rate increases.

	Actual 2014	Actual 2015	Estimated 2016	Budget 2017	Projected 2018	Projected 2019	Projected 2020	Projected 2021	Projected 2022
Gallons Disposed per MCES (in millions)	1,225.5	1,155.6	1,040.5	1,037.6	1,040.6	1,044	1,047	1,050	1,053
Customer Count	10,500	10,627	10,650	10,650	10,650	10,750	10,825	10,875	10,925
Sewer Billings									
Gallons Billed (in millions)		967.4	1,000	1,020	1,020	1,027	1,033	1,036	1,040
Rate (\$ per 1,000 gallons)	2.07	2.07	2.24	2.42	-	-	-	-	-
City Rate (\$ per 1,000 gallons)	-	-	-	-	0.10	0.20	0.30	0.40	0.50
MCES Rate (\$ per 1,000 gallons)	-	-	-	2.53	2.55	2.78	2.92	3.07	3.16
Flat Rate per Household	5.00	5.00	6.00	6.50	6.50	6.50	6.50	6.50	6.87

This scenario like the first scenario, experiences a 6.6 percent increase in 2018. This increase doesn't eliminate the MCES subsidy but it does redirect \$0.10 per thousand to the establishment of a city flow rate. Future rate increases are higher than in the first scenario, but are needed to maintain sufficient working capital.



Scenario 3

The third scenario builds off scenario two by continuing with the split flow rates between the city and MCES, but makes a philosophical change in the fixed and variable rate structure. The city's flat rate is relatively high and has been traditionally used for capital related expenses. The city is now anticipating that future capital needs will decrease in future years, which begs the question should the flat rate reflect past or future capital needs.

The higher flat rate also tends to be a higher burden on lower volume users of the system compared to high volume users. If we want to make sure that actual users of the system are paying for the costs of the system, it may make sense to lower the flat rate and increase the flow rates to better match operational and capital outlay expenses.

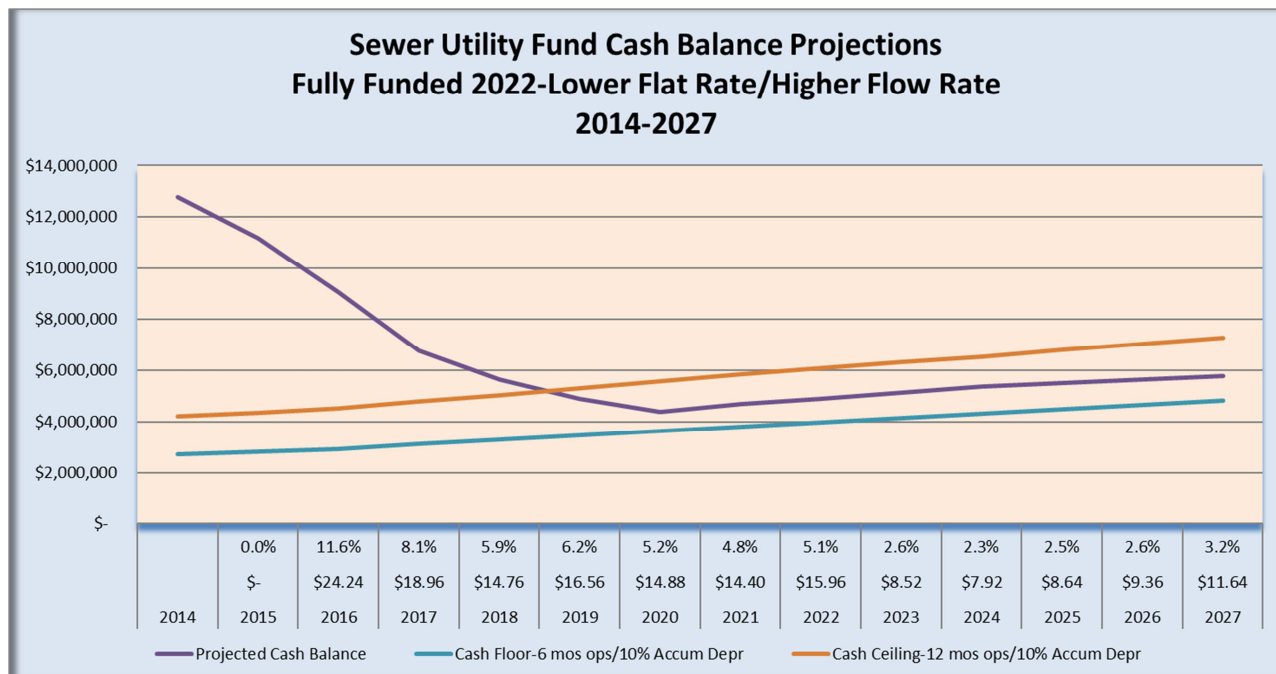
The table below depicts this change in structure. Again, numbers highlighted in yellow indicated the year that specific rate type is fully funded. In this scenario, the 2018 flat rate is reduced from \$6.50 per account per month to \$2.75 per account per month and then gradually increased until it reaches full funding in 2022 at \$2.98 per account per month. The city flow starts at a rate of \$0.60 per thousand since the flat rate is being reduced and reaches full funding by 2022.

	Actual 2014	Actual 2015	Estimated 2016	Budget 2017	Projected 2018	Projected 2019	Projected 2020	Projected 2021	Projected 2022
Gallons Disposed per MCES (in millions)	1,225.5	1,155.6	1,040.5	1,037.6	1,040.6	1,044	1,047	1,050	1,053
Customer Count	10,500	10,627	10,650	10,650	10,650	10,750	10,825	10,875	10,925
Sewer Billings									
Gallons Billed (in millions)		967.4		1,020	1,020	1,027	1,033	1,036	1,040
Rate (\$ per 1,000 gallons)	2.07	2.07	2.24	2.42	-	-	-	-	-
City Rate (\$ per 1,000 gallons)	-	-	-	-	0.60	0.70	0.75	0.80	0.91
MCES Rate (\$ per 1,000 gallons)	-	-	-	2.53	2.65	2.78	2.92	3.07	3.16
Flat Rate per Household	5.00	5.00	6.00	6.50	2.75	2.75	2.85	2.85	2.98

The difference between the second and third scenario is that the third scenario matches revenues with both actual out of pocket operating and capital expenses. The second scenario matches the flat rate to the annual depreciation, which is not a cash outflow. That is why the cash balance starts to trend upward in future years as annual depreciation outpaces actual annual capital expenses.

As the graph below depicts, by matching all three rate types with out of pocket expenses we are more easily able to maintain the cash balance within the target range. Whereas the first two scenarios are only matching one or two of the rate types against out of pocket expenses.

Scenario 3 provides more modest rate increases as revenues only match outgoing expenditures.



Annual Residential Sewer Cost Comparison

The following table is a comparison of an average annual residential sewer bill for all three scenarios over the next ten years.

Sanitary Sewer Utility Fund Change in Yearly Sewer Bill 2017 Rate Analysis

Average 6,000 gallons per month or 72,000 gallons per year - Residential Only

	2018 Rate Changes			Annual Average Sewer Charges									
	2018	\$ Change Per Year	% Change Per Year	2019	2020	2021	2022	2023	2024	2025	2026	2027	
Scenario 1													
MCES & Deprec. Only													
Residential	\$268.80	\$ 16.56	6.6%	\$ 278	\$ 288	\$ 299	\$ 312	\$ 319	\$ 325	\$ 332	\$ 340	\$ 354	
Scenario 2													
Fully Funded 2027													
Residential	\$268.80	\$ 16.56	6.6%	\$ 293	\$ 310	\$ 328	\$ 346	\$ 361	\$ 376	\$ 392	\$ 408	\$ 423	
Scenario 3													
Fully Funded 2023													
Residential	\$267.00	\$ 14.76	5.9%	\$ 284	\$ 298	\$ 313	\$ 329	\$ 337	\$ 345	\$ 354	\$ 363	\$ 375	

Sanitary Sewer Summary

Overall, the fund is in sound financial shape, but attention is needed to ensure long-term sustainability. MCES will continue to be a major factor in rates as we move into the future. Establishing a revised working capital target ensures the fund remains viable and the city continues with the practices and philosophy of not relying on debt issuance for routine capital outlay and maintaining modest utility rates.

(II) Storm Drainage

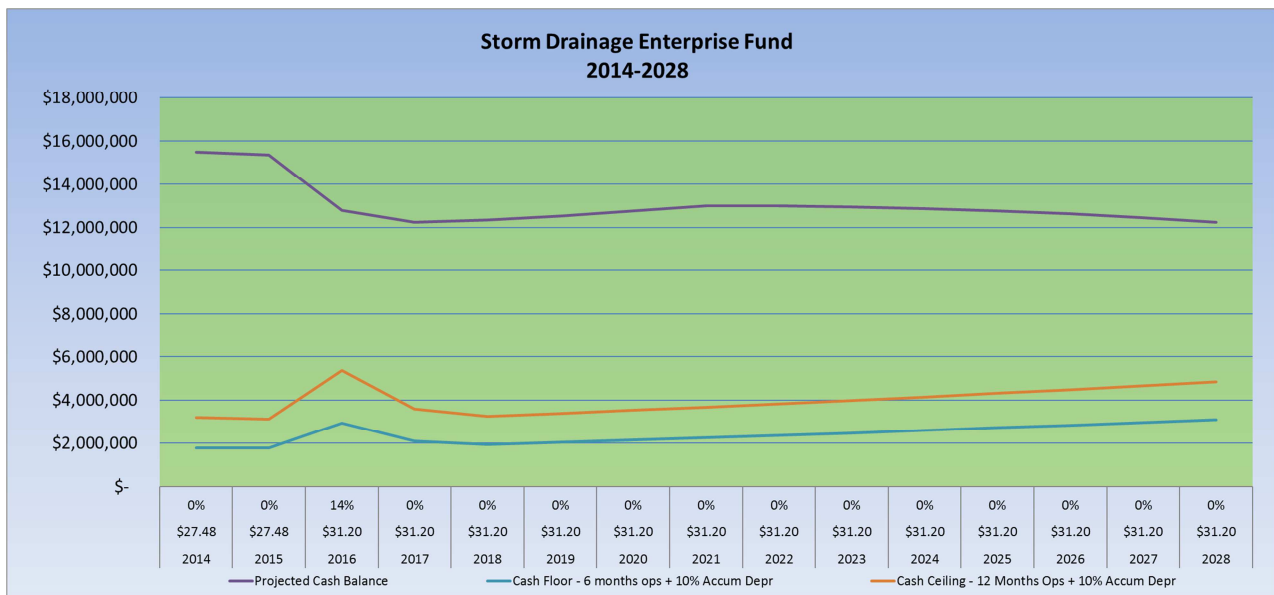
The Storm Drainage Enterprise fund is in excellent financial condition. The same working capital target as the sanitary sewer fund was applied to this fund. The working capital target floor equals 50% of operational expense plus 10% of accumulated depreciation, and the ceiling equals 100% of the operational expenses plus 10% of accumulated depreciation.

The cash balance of the storm water fund is anticipated to be about \$12.2 million at the end of 2017. The ceiling of the working capital target range is about \$3.6 million. This fund's cash balance is well above the required ceiling.

The difference between this fund and the sanitary sewer fund is that future legislative impacts are a very real probability and those impacts can come with very steep price tags. Being in a sound financial position will help to mitigate some of those potential costs.

Rate Analysis

If there are no new legislative or regulatory impacts, the 10-year forecast is not anticipating any rate increases.



*The second line on the horizontal axis of the above chart is the annual residential cost for storm drainage.

Storm Drainage Summary

Staff is recommending maintaining the current rate structure with no foreseeable rate increases required.

(III) Next Steps

If there is a consensus to modifying the current working capital target balances, a revised policy will be brought forward to a future council meeting. Any utility rate increases will also be brought forward as part of the budget process and 2018 fee schedule updates later this year.