



2022 BUDGET

Platte County Regional Sewer District

Approved
December 9, 2021

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Mission Statement

It is the Mission of PCRSD to protect the soil, water and the general environment of Platte County through continued efforts to eliminate improper disposal of wastewater, thus protecting and reclaiming property values.

District Board of Trustees

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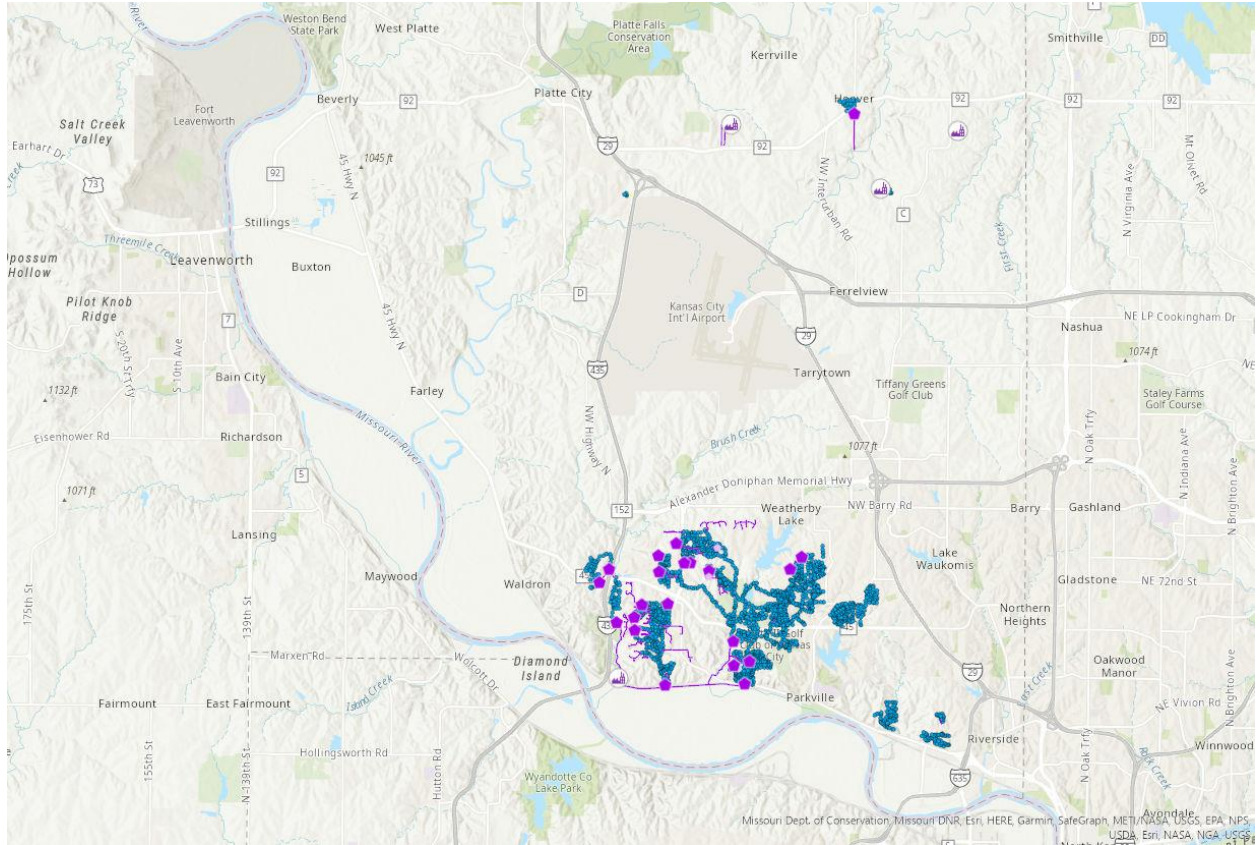
Lucas Wagner, Collection System Technician

Jake Percy, Collection System Laborer

About the District

The Platte County Regional Sewer District was formed in 1992 to collect and treat sewage in the county. The District serves over 5,300 customers in neighborhoods highlighted in green in Figure 1 below. Service is provided through the operation and maintenance of four wastewater treatment facilities, 22 pump stations, and 63 miles of sewer lines. The District also provides wastewater treatment for the Blair Heights neighborhood and parts of Kansas City, Missouri.

Figure 1: PCRSD Service Areas



Treatment Facilities

The District operates and maintains four wastewater treatment facilities (WWTF): Brush Creek WWTF, Red Rock WWTF, South Gale WWTF, and Alan Acres WWTF. The Brush Creek WWTF is the largest facility and treats all customers south of Highway 152. Originally built in 1996, it was expanded in 2006 to increase capacity and comply with the latest Missouri Department of Natural Resources regulations. The facility can treat up to 2,000,000 gallons of wastewater a day. It is an activated sludge facility that uses organisms to break down the sewage.

The remaining plants are smaller and serve individual neighborhoods. Alan Acres is an activated sludge plant, just like Brush Creek, and serves 17 residences. The Red Rock and South Gale facilities use a combination of septic tanks and a recirculating sand filter to treat the wastewater. The residential septic tanks initially treat the sewage and then send it to the plant for additional treatment. Each facility currently serves between 25 and 50 customers. In the past two years, improvements were constructed at the Red Rock, Alan Acres, and South Gale WWTFs to comply with the operating permits.



Figure 2: Red Rock WWTF

Collection System

The District operates and maintains over 63 miles of sewer lines and 22 pump stations. For most of the District's service areas, the sewer lines use gravity to move the sewage to the nearest pump station or treatment facility. The remaining lines are force mains that use pressurized air to push the sewage. Property owners connected to pressure lines have grinder pumps installed to facilitate this process. From the lines, the sewage travels to the pump station, where it is pumped into another line and taken to the nearest treatment facility.

All of the District's pump stations and treatment facilities have remote telemetry units (RTUs) equipped. These units provide real-time monitoring of pump station activity and warning alarms. Staff can check the status of any station from a computer or smart phone and are notified immediately of any alarm, such as a power outage or pump failure, via an email or telephone call. These units also record and maintain data that is useful in examining long-term trends.

The District began a comprehensive Sanitary Sewer Evaluation Study (SSES) in 2011. Each year, specific neighborhoods and sewer lines were inspected and given a condition rating for repairs. This information was used to identify deficiencies and most effectively utilize District resources. In 2018, the District studied part of the Walnut Creek neighborhood. The annual findings were incorporated into the Capital Improvement Plan (CIP) Fund Budget and Appendix A.



Figure 3: A manhole with severe corrosion discovered during the SSES. It was rehabilitated in 2014.

2021 in Review

Here is an overview of the PCRSD actions and changes in 2021:

- **Manhole rehabilitation**

Sanitary Sewer Repairs project focused on rehabilitating corroded manholes in The National and Thousand Oaks subdivisions. The manholes were lined with an epoxy coating and composite lids installed to prevent future corrosion.

- **Brush Creek WWTF maintenance**

The headworks building channel was rehabilitated and lined with epoxy after years of sulfide-induced corrosion. The aeration discs that oxygenate the wastewater during the treatment process were replaced.

- **Sewer line repairs and rehabilitation**

As part of the Sanitary Sewer Repairs project, She Digs It performed sewer line repairs in the Walnut Creek subdivision.

- **New development phases**

Sewer lines were constructed by the developer of the following subdivision:

- Capital Electric Building Plat
- Chapel Ridge 11th Plat
- Creekside Village Townhomes Phase 2
- Creekside Village Townhomes Phase 3
- Creekside Woods 2nd Plat
- Thousand Oaks 23rd Plat
- Thousand Oaks 24th Plat

These subdivisions were designed, constructed, and inspected in accordance with PCRSD standards.

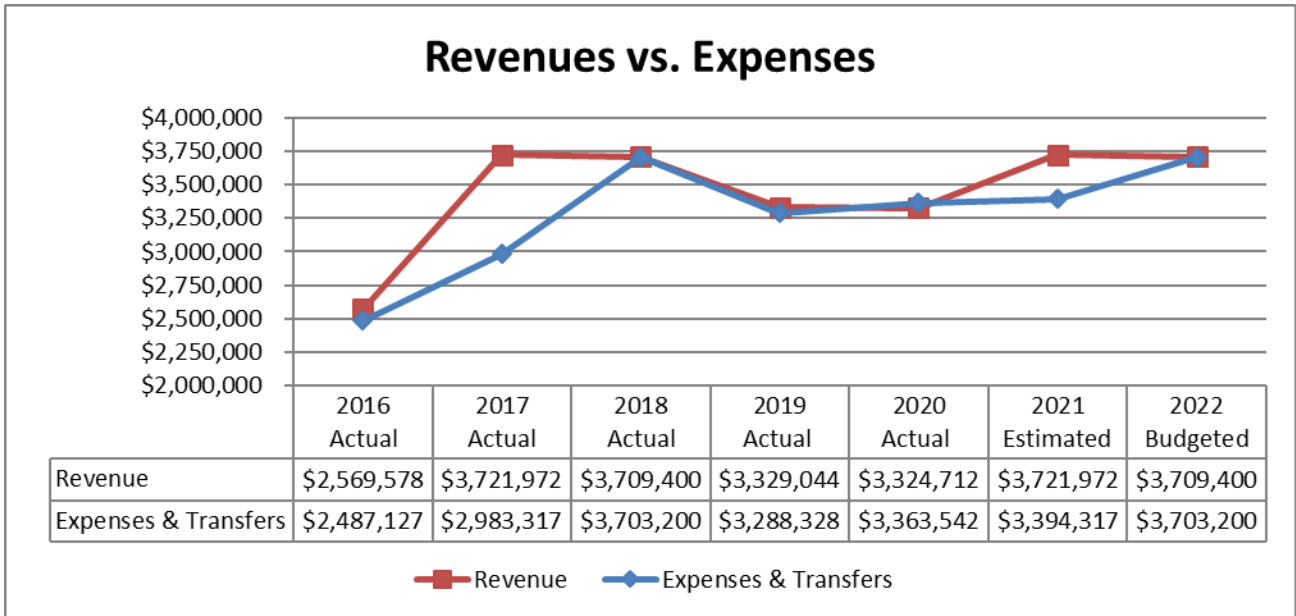
- **New Sewer Connections**

There were 182 new residential sewer connection permits and four commercial connection permits issued.

Operating Fund

Overview

The Operating Fund is comprised of the District’s activities necessary to operate and maintain the collection system. Those activities include wastewater treatment, system maintenance, inspections & line locations, billing & collections, and customer service. Below is a line graph detailing the operating revenue and expenses since 2016:



Revenue

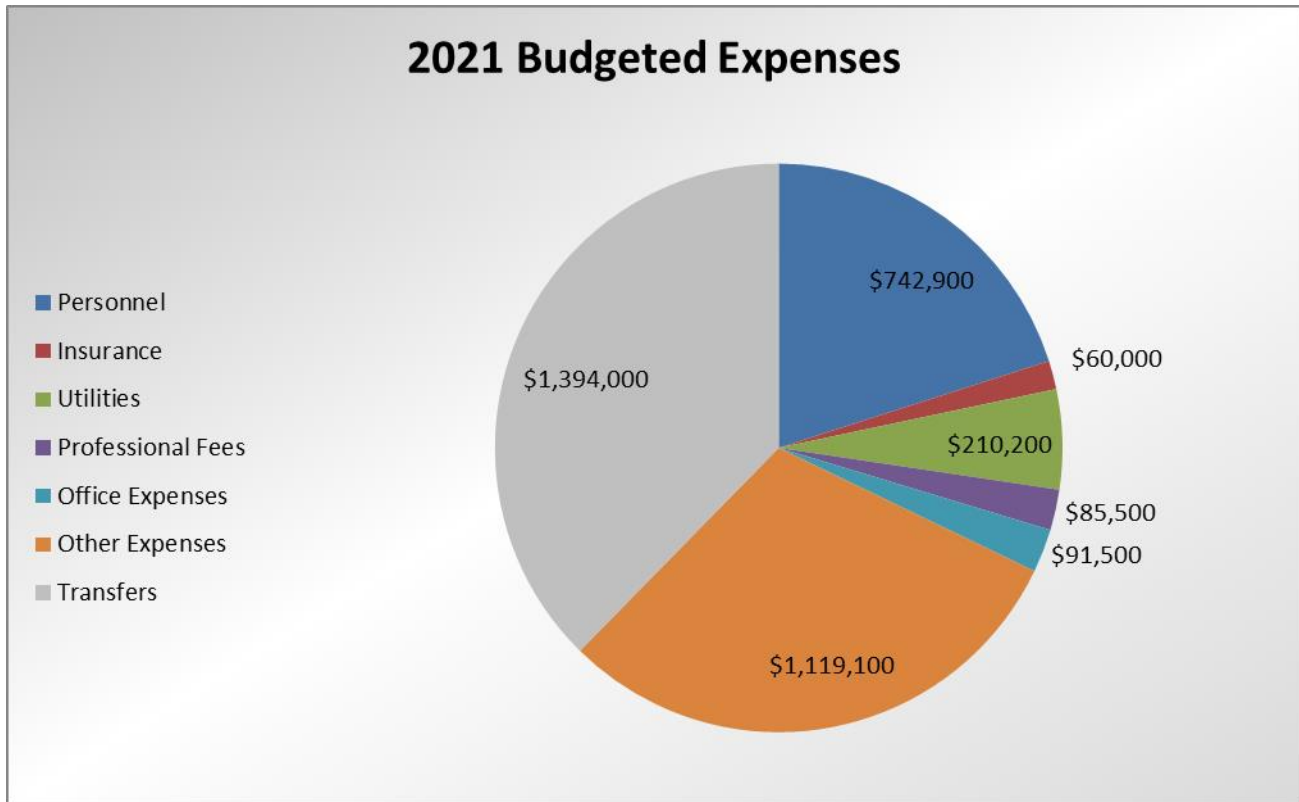
The District anticipates \$3,709,400 in revenue for 2022. Sewer user charges continue to be the single largest source representing over 97 percent of operating revenue. The remaining revenue sources are late fees/penalties, reimbursements, sale of equipment, and interest income. The total revenue reflects a 5 percent increase over the 2021 Budget, driven primarily by a growing customer base. The District has seen the customer base grow 10.1 percent since the end of 2019. The sewer rate, approved by the Board of Trustees, remained unchanged from 2021 and is shown in the table below.

	2022 Rate
Base	\$ 31.66
Rate per 1,000 gal	4.75
Total (4,000 gal user)	\$ 50.66

A customer’s bill is calculated using the “winter average.” The water used during the months of January, February, and March are collected and an average monthly use is obtained. These months are used to avoid charging customers for water used for outdoor purposes that do not generate wastewater. The average is then applied to the rate formula above and establishes the monthly amount billed throughout the year.

Expenses & Transfers

The District budget includes \$2,309,200 for expenses and transfers out at \$1,394,000. The operating expenses reflect a 10.8 percent increase over the 2021 budget. This increase was the result of planned staffing additions and software upgrades. The District's largest expense continues to be the Kansas City Water Services treatment charges, accounting for 32 percent of the operating expenses. The expenses are divided into six categories and analyzed in the chart below:



A transfer of \$1,200,000 will be made from the Operating Fund to the Debt Service Fund in 2022. This amount covers the 2022 debt service obligations for system-wide projects and improvements. The \$194,000 transfer to the CIP Fund was budgeted for 2022 after being deferred in 2021.

2022 Operating Budget

	2019 Actual	2020 Actual	2021 Budgeted	2021 Estimated	2022 Budgeted	% Change
Estimated Beginning Fund Balance			3,832,028	3,832,028	4,159,683	
Revenue						
User Charges	3,089,759	3,229,176	3,400,000	3,562,972	3,600,000	5.9%
Penalties & Late Fees	41,447	30,058	40,000	42,000	40,000	0.0%
Collection Fees	12,093	8,963	26,000	8,800	10,000	-61.5%
Reimbursements	49,675	32,311	30,000	40,000	30,000	0.0%
Sale of Equipment	25,440		23,400	65,000	23,400	0.0%
Interest Income	110,630	24,204	12,000	3,200	6,000	-50.0%
Total Revenue	3,329,044	3,324,712	3,531,400	3,721,972	3,709,400	5.0%
Expenses						
Personnel						
Salaries & OT	390,733	422,235	470,000	468,000	574,000	22.1%
Payroll Taxes	29,001	31,666	36,900	36,000	42,200	14.4%
Employee Benefits	63,200	73,851	86,800	86,000	102,000	17.5%
Board Expenses	5,400	6,050	6,000	6,000	6,000	0.0%
Uniforms	2,204	2,291	3,500	3,500	3,500	0.0%
Professional Development	4,972	2,291	12,000	5,000	12,000	0.0%
Mileage Reimbursement	2,860	2,876	3,200	3,000	3,200	0.0%
Total Personnel	498,370	541,260	618,400	607,500	742,900	20.1%
Insurance						
Hazard, Liability, & Vehicle	43,405	40,952	43,000	46,152	50,000	16.3%
Workers Compensation	6,563	5,952	6,300	9,165	10,000	58.7%
Total Insurance	49,968	46,904	49,300	55,317	60,000	21.7%
Utilities						
Electricity	138,519	165,391	170,000	175,000	180,000	5.9%
Water/Sewer	1,436	1,734	2,000	2,200	2,200	10.0%
Telephone	23,273	22,965	28,000	28,000	28,000	0.0%
Total Utilities	163,228	190,090	200,000	205,200	210,200	5.1%
Professional Fees						
Attorney	2,233	5,629	15,000	6,000	15,000	0.0%
Engineer	47,206	47,468	55,000	60,000	45,000	-18.2%
Accounting/Payroll	715	640	800	1,300	1,500	87.5%
Auditor	21,100	21,800	23,000	22,900	24,000	4.3%
Total Professional Fees	71,254	75,537	93,800	90,200	85,500	-8.8%

	2019 Actual	2020 Actual	2021 Budgeted	2021 Estimated	2022 Budgeted	% Change
Office Expenses						
Office Supplies	4,036	6,344	6,000	6,000	6,000	0.0%
Information Technology	9,297	26,895	13,000	13,000	65,000	400.0%
Postage	13,077	13,297	14,000	16,000	17,000	21.4%
Printing/Public Notices	4,927	2,363	3,500	3,200	3,500	0.0%
Total Office Expenses	31,337	48,899	36,500	38,200	91,500	150.7%
Other Expenses						
Missouri One Call	5,303	7,025	7,000	7,200	7,300	4.3%
DNR Fees	3,164	3,297	3,600	3,700	3,800	5.6%
Laboratory	13,967	17,582	21,000	21,000	21,000	0.0%
Outside Treatment	584,499	711,513	708,000	700,000	741,000	4.7%
Maintenance	325,317	238,813	230,000	235,000	240,000	4.3%
Solid Waste Hauling	150,790	31,983	36,000	41,000	44,000	22.2%
Service Vehicles	42,323	38,474	54,000	54,000	25,000	-53.7%
Collections	29,308	36,165	26,000	36,000	37,000	42.3%
Total Other Expenses	1,154,671	1,084,852	1,085,600	1,097,900	1,119,100	3.1%
Total Expenses	1,968,828	1,987,542	2,083,600	2,094,317	2,309,200	10.8%
Other Financing Sources (Uses)						
Transfer to Debt	(1,200,000)	(1,200,000)	(1,300,000)	(1,300,000)	(1,200,000)	-7.7%
Transfer to CIP	(191,500)	(176,000)	-	-	(194,000)	
Total Financing Sources (Uses)	(1,391,500)	(1,376,000)	(1,300,000)	(1,300,000)	(1,394,000)	7.2%
Surplus (Deficit)	(31,284)	(38,830)	147,800	327,655	6,200	
Estimated Ending Fund Balance			3,979,828	4,159,683	4,165,883	

Debt Service Fund

Overview

The District has three State Revolving Fund (SRF) loans that were used to finance various improvements to the system. Some of these projects benefitted only a specific neighborhood and are repaid through special debt assessments against the benefitting customers. The system-wide projects completed with these funds are repaid through the fund transfer from the Operating Fund. For budgeting purposes, the District budgets the principal and interest expenses for the following year. That ensures the resources are available in advance of the payment due dates. The District will set aside \$1,325,997 for the debt service obligations in 2022. A detailed breakdown of the total is in the table below:

	Principal	Interest	Total
Series 2002B	30,000	450	30,450
Series 2006A	1,190,000	105,547	1,295,547
Total Payments	\$ 1,220,000	\$ 105,997	\$ 1,325,997

The district’s total debt payments through 2027 are listed below. These numbers reflect the estimated interest due after the SRF interest subsidy:

Year	Principal	Estimated Interest	Total
FY 2022	1,220,000	105,997	1,325,997
FY 2023	1,215,000	88,590	1,303,590
FY 2024	1,245,000	71,276	1,316,276
FY 2025	1,270,000	53,535	1,323,535
FY 2026	1,300,000	35,438	1,335,438
FY 2027	1,325,000	17,889	1,342,889

2022 Debt Service Budget

	2019 Actual	2020 Actual	2021 Budgeted	2021 Estimated	2022 Budgeted	% Change
Estimated Beginning Fund Balance	1,632,214	2,137,395	1,952,022	1,951,478	1,920,094	
Revenue						
Debt Service Assessments	253,875	173,960	143,456	143,456	130,712	-8.9%
Penalties & Late Fees	4,649	2,909	2,500	3,600	1,500	-40.0%
Interest Income	33,825	8,307	1,200	800	1,000	-16.7%
Total Revenue	292,349	185,176	147,156	147,856	133,212	-9.5%
Expenses						
SRF Principal	1,007,917	1,370,000	1,302,500	1,302,500	1,217,500	-6.5%
SRF Interest	168,923	145,574	127,225	131,261	110,051	-13.5%
SRF Fees	63,240	55,519	50,000	45,479	44,304	-11.4%
Total Expenses	1,240,080	1,571,093	1,479,725	1,479,240	1,371,855	-7.3%
Other Financing Sources (Uses)						
Transfer from Operating	1,200,000	1,200,000	1,300,000	1,300,000	1,200,000	-7.7%
Total Financing Sources (Uses)	1,200,000	1,200,000	1,300,000	1,300,000	1,200,000	-7.7%
Surplus (Deficit)	252,269	(185,917)	(32,569)	(31,384)	(38,643)	
Estimated Ending Fund Balance	1,884,483	1,951,478	1,919,453	1,920,094	1,881,451	



She Digs It employees prepare the flow meter pit at the Brush Creek WWTF for bypass pumping while the headworks channel was rehabilitated and lined with epoxy coating.



PCRSD staff stabilized the Walnut Creek bank along the sewer line aerial crossing. The bank was scoured and risked undermining the line and upstream manhole.

Capital Improvement Plan Fund

Overview

The CIP is a proactive program that will help PCRSD discover and correct defects in sewer lines and equipment before they fail and cause significant problems. It is funded through connection fees, transfers from the Operating Fund, and existing bond proceeds. It is the goal of the CIP to minimize repair costs and reduce the District's dependency on debt.

Planned Projects for 2022

- **Alan Acres WWTF Aeration Replacement** **\$42,000**
The plant's blowers are old and loud. They would be replaced along with the control panel and piping.
- **Indian Hills PS Replacement** **\$440,000**
The pump station is old and undersized. The wetwell's capacity can be filled in only a few minutes and is a primary cause of sanitary sewer overflows. The project includes the installation of a new wetwell, pumps, piping, control panel, and generator.
- **West Side PS Improvements** **\$45,000**
The control system is old and outdated, while serving an area of rapid growth. The improvements would replace the control system and meet current District standards.
- **Thousand Oaks 11th PS Odor Control Unit** **\$31,000**
The pump station discharges near the Thousand Oaks northern pool, an area with numerous odor complaints. This system uses blown air and ozone to break up grease, oxygenate the sewage, and break down odorous gases before they are pumped and discharged.
- **Sanitary Sewer Repairs** **\$300,000**
This year's project emphasizes sewer line spot repairs and cured in place piping (CIPP). It also includes rehabilitation of the Brush Creek WWTF headworks channel and grit removal system replacement.
- **Blair Heights Service Extension** **\$430,000**
The Blair Heights subdivision would like the District to take over the operation and maintenance of their sewer infrastructure. The system would need to be restored to District standards. This cost would be recovered through assessments levied against Blair Heights residents.
- **SSES Phase** **\$58,000**
The 2022 phase includes the continued inspection/evaluation of the lines in The National south of Highway 45 and the cleaning and televising lines along Hampton Road.

2022 Capital Improvements Plan Budget

	2019 Actual	2020 Actual	2021 Budgeted	2021 Estimated	2022 Budgeted
Estimated Beginning Fund Balance	1,145,408	855,353	1,843,654	1,843,654	2,385,440
Estimated SRF Balance	-		-		-
Revenue					
Connection Fees	421,253	1,500,000	330,000	1,250,000	330,000
Total Revenue	421,253	1,500,000	330,000	1,250,000	330,000
Expenses					
Capital Equipment	-	-	65,000	63,724	8,500
Collection System	40,396	21,585	390,000	420,151	200,000
Pump Stations	-	47,618	70,000	100,081	471,000
Treatment Facilities	574,781	390,085	40,000	47,828	637,000
Sanitary Sewer Evaluation Study	79,139	48,758	55,000	60,430	58,000
CIP Management	16,992	17,712	17,400	16,000	16,000
Total Expenses	711,308	525,758	637,400	708,214	1,390,500
Other Financing Sources (Uses)					
Transfer from Operations	-	-	-	-	194,000
Total Financing Sources (Uses)	-	-	-	-	194,000
Surplus/(Deficit)	(290,055)	974,242	(307,400)	541,786	(866,500)
Estimated Ending Fund Balance	855,353	1,829,595	1,536,254	2,385,440	1,518,940

	2023 Budgeted	2024 Budgeted	2025 Budgeted	2026 Budgeted
Estimated Beginning Fund Balance	1,518,940	1,333,640	1,159,525	(933,896)
Estimated SRF Balance	-	-	-	-
Revenue				
Connection Fees	330,000	330,000	330,000	330,000
Total Revenue	330,000	330,000	330,000	330,000
Expenses				
Capital Equipment	-	-	-	-
Collection System	315,000	65,000	65,000	65,000
Pump Stations	127,000	370,000	-	150,000
Treatment Facilities	200,000	200,000	2,500,000	3,000,000
Sanitary Sewer Evaluation Study	60,000	65,000	65,000	65,000
CIP Management	17,000	18,000	18,000	18,000
Total Expenses	719,000	718,000	2,648,000	3,298,000
Other Financing Sources (Uses)				
Transfer from Operations	203,700	213,885	224,579	235,808
Total Financing Sources (Uses)	203,700	213,885	224,579	235,808
Surplus/(Deficit)	(185,300)	(174,115)	(2,093,421)	(2,732,192)
Estimated Ending Fund Balance	1,333,640	1,159,525	(933,896)	(3,666,088)

NOTE: The budget figures for 2023 and beyond are for planning purposes only. They will be evaluated on an annual basis are subject to change based on SSES recommendations, regulatory changes, and/or emergencies.