



2020 BUDGET

Platte County Regional Sewer District

Proposed
December 11, 2019

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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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Norm Beeman, Vice-Chairman

Tony Paolillo, Treasurer

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Commissioner Ron Schieber, Trustee

Staff

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Shawn Burns, Assistant Director

Karen Shanks, Billing Clerk

Kevin Schank, Treatment Facility Superintendent

Scott Jones, Treatment Facility Laborer

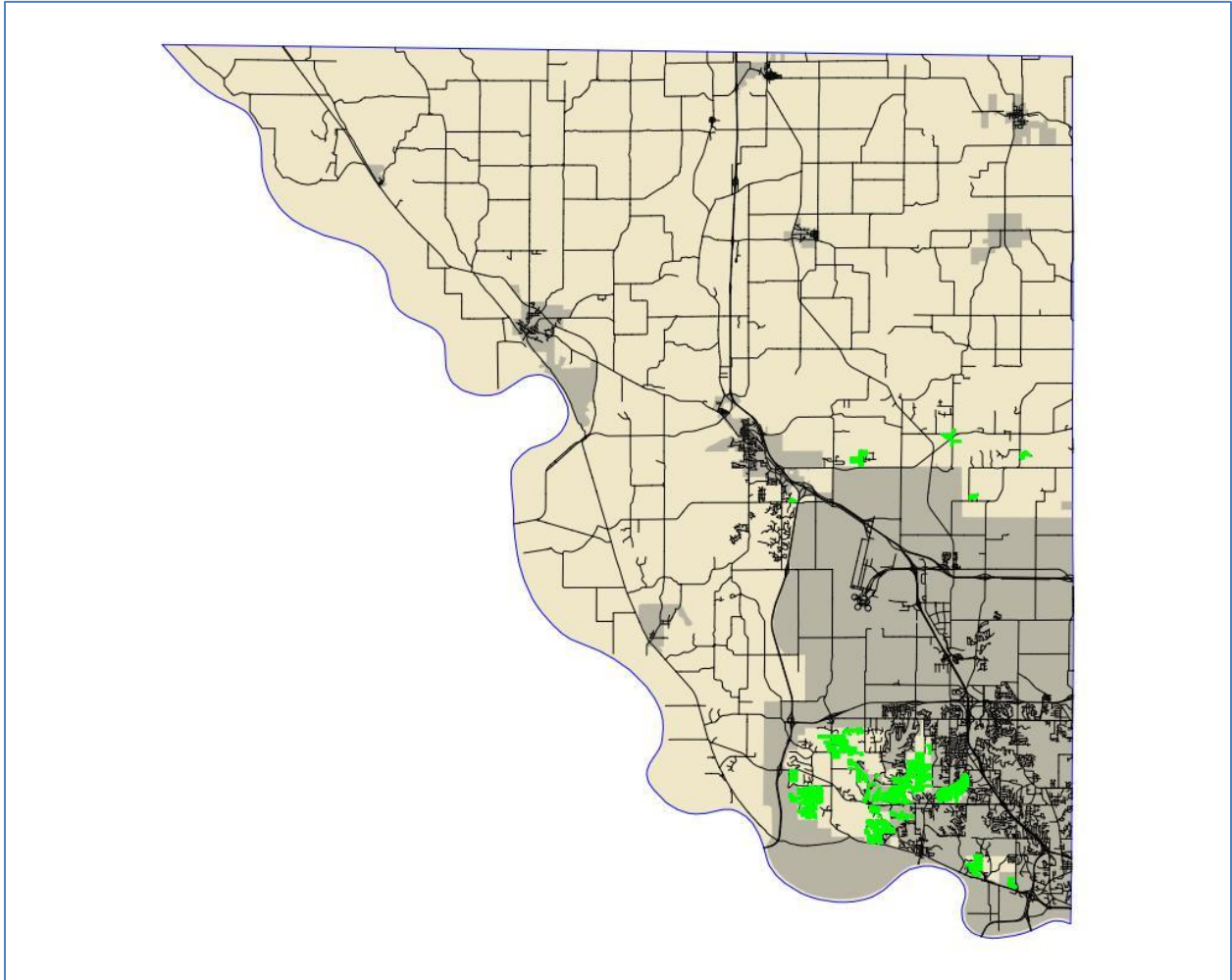
Lucas Wagner, Collection System Technician

Dennis Hudson, 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 4,600 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 re-circulating 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.

2019 in Review

Here is an overview of the PCRSD actions and changes in 2019:

- **Hired Lucas Wagner**
Hired Lucas Wagner in March to replace Mark Terry, who resigned in January.

- **Cleaned the Brush Creek WWTF basins**
The aeration basins and digesters at the Brush Creek WWTF were taken offline in stages and cleaned of built up waste and debris. The cleaning allowed staff to inspect the basins and perform repairs.

- **Upgrades to the South Gale WWTF**
Upgrades were constructed at the South Gale WWTF to comply with permit requirements. The improvements included a moving bed biological reactor (MBBR) to comply with stricter ammonia limits.

- **Sewer line repairs and rehabilitation**
Staff completed spot repairs of a sewer line in the Parks Hills neighborhood and one in the Walnut Creek neighborhood. The spot repairs were necessary to allow Insituform to rehabilitate the lines using cured-in-place pipe.

- **Stormwater improvements to the Red Rock WWTF driveway**
The driveway and apron to the Red Rock WWTF was eroding and making access difficult for service vehicles. Staff completed the installation of a new drainage culvert and a concrete apron to prevent future erosion. This project was completed through a generous grant from the Platte County Stormwater Grant program.

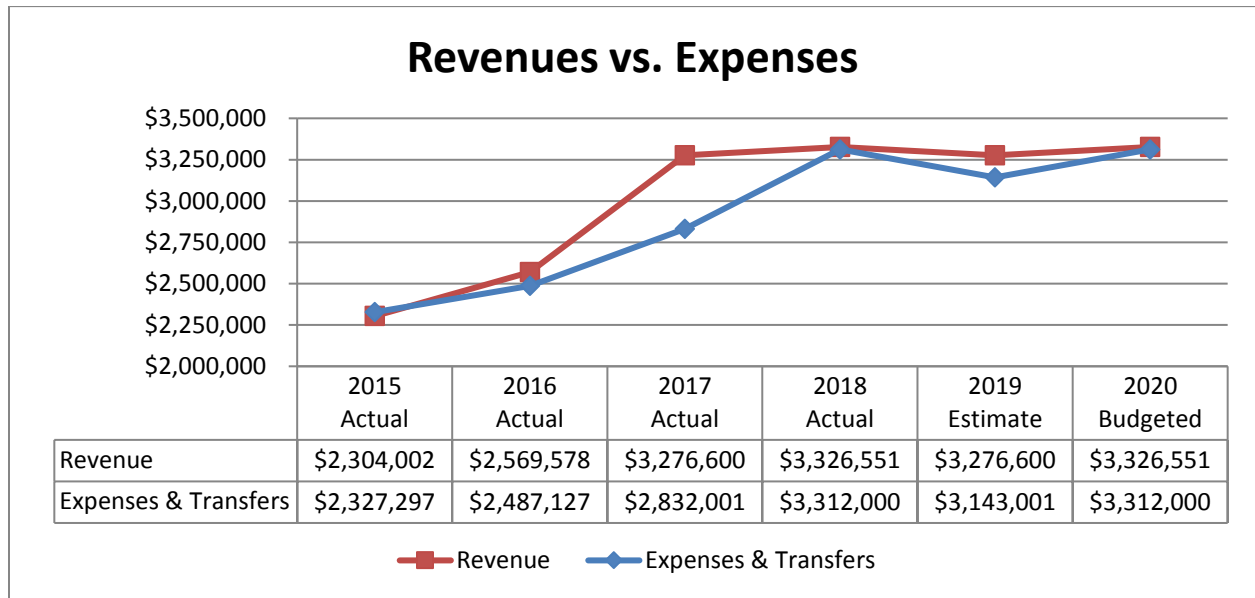
- **New development phases**
Sewer lines were constructed by the developer of the following subdivision:
 - Chapel Ridge 7th Plat
 - Chapel Ridge 9th Plat
 - Thousand Oaks 22nd Plat
 - Vertical Ventures IIIThese subdivisions were designed, constructed, and inspected in accordance with PCRSD standards.

- **New Sewer Connections**
There were 101 new residential sewer connection permits and one commercial connection permit were 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 2015:



Revenue

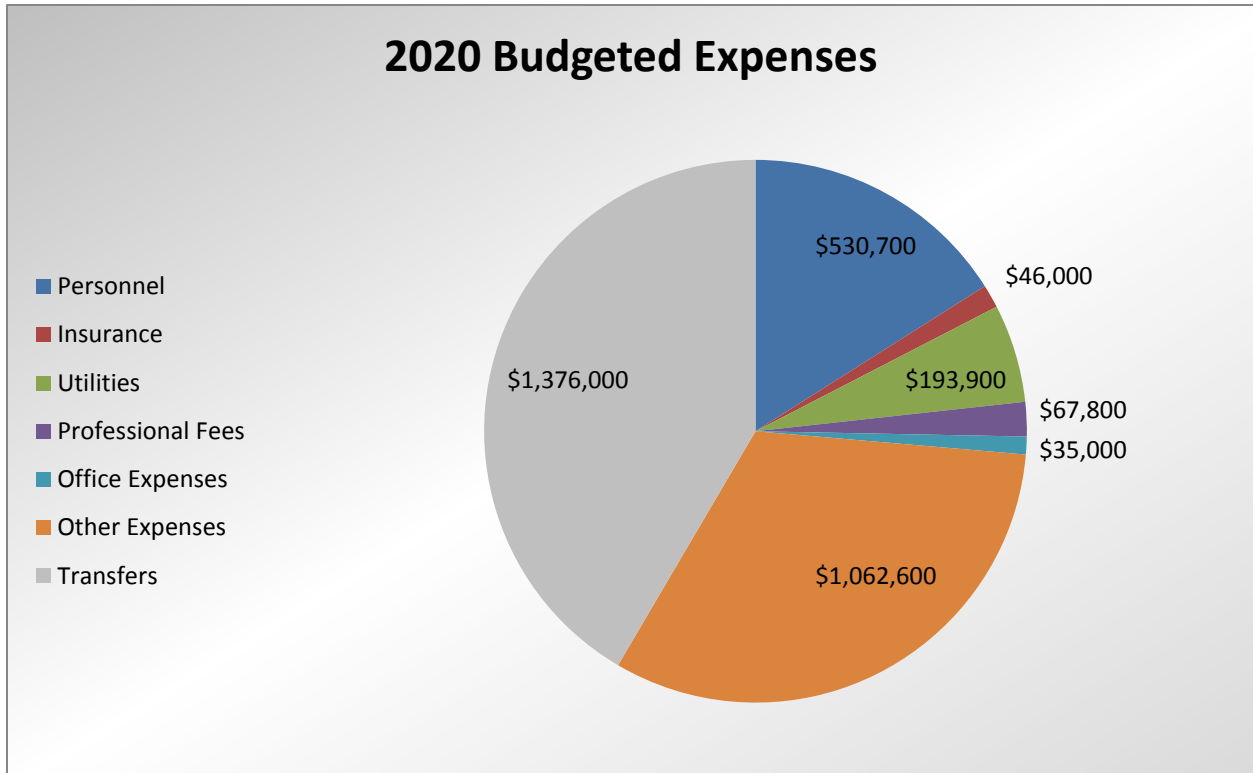
The District anticipates \$3,326,551 in revenue for 2019. Sewer user charges continue to be the single largest source representing over 94 percent of operating revenue. The remaining revenue sources are late fees/penalties, reimbursements, sale of equipment, and interest income. The total revenue reflects a 2.4 percent increase over the 2019 Budget. The new sewer rate, approved by the Board of Trustees, will go into effect in 2020. The old and new rates are compared in the table below based on an assumed use of 4,000 gallons:

	2019 Rate	2020 Rate	Percent Change
Base	\$ 31.66	\$ 31.66	0.00%
Rate per 1,000 gal	4.52	4.75	5.09%
Total	\$ 49.74	\$ 50.66	1.85%

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 \$1,936,000 for expenses and transfers out at \$1,376,000. The operating expenses reflect a 2.1 percent decrease over the 2019 amended budget.¹ The District's largest expense continues to be the Kansas City Water Services treatment charges, but the annual increases have been less than anticipated. 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 2020. This amount covers the 2020 debt service obligations for system-wide projects and improvements. The District will also transfer \$176,000 from the Operating Fund to the CIP Fund. This transfer helps fund the CIP to pay for future repairs and facility improvements/expansions required to comply with DNR permits and regulations. By taking this proactive approach, the District may rely less on debt and save money on interest payments and borrowing costs.

¹ The decrease was due to a budget amendment in July 2019 that increased the overall expenses \$126,000. The amendment decreased the CIP transfer by the same amount. Compared to the original budget, expenses increased 4.6 percent.

2020 Operating Budget

	2017 Actual	2018 Actual	2019 Estimated	2019 Budgeted	2020 Budgeted	% Change
Estimated Beginning Fund Balance					177,688	
Revenue						
User Charges	2,630,115	2,823,449	3,093,000	3,094,435	3,133,351	1.3%
Penalties & Late Fees	39,367	36,644	41,220	40,000	40,000	0.0%
Collection Fees	11,333	17,382	12,000	26,000	26,000	0.0%
Reimbursements	37,586	15,947	49,675	5,000	5,000	0.0%
Sale of Equipment			25,440	4,000	22,200	455.0%
Interest Income	38,320	97,629	109,200	80,000	100,000	25.0%
Total Revenue	2,756,721	2,991,051	3,330,535	3,249,435	3,326,551	2.4%
Expenses						
Personnel						
Salaries & OT	356,060	380,486	390,252	390,000	405,000	3.8%
Payroll Taxes	27,213	29,063	29,000	31,500	31,500	0.0%
Employee Benefits	55,452	59,862	62,807	63,000	70,000	11.1%
Board Expenses	6,372	5,300	5,400	6,000	6,000	0.0%
Uniforms	2,307	2,432	2,450	3,000	3,000	0.0%
Professional Development	7,771	11,085	6,000	10,000	12,000	20.0%
Mileage Reimbursement	2,370	2,779	2,870	3,200	3,200	0.0%
Total Personnel	457,545	491,007	498,779	506,700	530,700	4.7%
Insurance						
Hazard, Liability, & Vehicle	35,063	36,425	43,405	37,500	40,000	6.7%
Workers Compensation	6,369	5,812	5,646	6,500	6,000	-7.7%
Total Insurance	41,432	42,237	49,051	44,000	46,000	4.5%
Utilities						
Electricity	134,271	151,464	139,000	160,000	165,000	3.1%
Water/Sewer	1,441	1,934	1,450	1,800	1,900	5.6%
Telephone	22,930	22,521	22,850	26,000	27,000	3.8%
Total Utilities	158,642	175,919	163,300	187,800	193,900	3.2%
Professional Fees						
Attorney	2,340	2,253	1,800	15,000	15,000	0.0%
Engineer	47,249	25,416	45,150	30,000	30,000	0.0%
Accounting/Payroll	708	751	650	700	800	14.3%
Auditor	19,900	20,400	21,100	21,500	22,000	2.3%
Total Professional Fees	70,197	48,820	68,700	67,200	67,800	0.9%

	2017 Actual	2018 Actual	2019 Estimated	2019 Budgeted	2020 Budgeted	% Change
Office Expenses						
Office Supplies	4,070	3,739	3,700	5,000	5,000	0.0%
Information Technology	19,858	6,841	9,300	11,000	13,000	18.2%
Postage	12,318	12,807	13,100	14,500	13,500	-6.9%
Printing/Public Notices	3,532	2,312	4,750	9,000	3,500	-61.1%
Total Office Expenses	39,778	25,699	30,850	39,500	35,000	-11.4%
Other Expenses						
Missouri One Call	5,316	5,034	5,300	5,200	5,200	0.0%
DNR Fees	3,229	3,126	3,165	3,300	3,400	3.0%
Laboratory	5,788	6,899	13,000	12,000	20,000	66.7%
Outside Treatment	511,001	641,143	624,802	686,000	708,000	3.2%
Maintenance	171,088	210,559	297,000	241,000	220,000	-8.7%
Solid Waste Hauling	-	29,524	127,400	115,000	36,000	-68.7%
Service Vehicles	63,906	12,573	42,500	44,000	44,000	0.0%
Collections	15,280	23,610	29,000	26,000	26,000	0.0%
Total Other Expenses	775,608	932,468	1,142,167	1,132,500	1,062,600	-6.2%
Total Expenses	1,543,202	1,716,150	1,952,847	1,977,700	1,936,000	-2.1%
Other Financing Sources (Uses)						
Transfer to Debt	(889,000)	120,000	(1,200,000)	(1,200,000)	(1,200,000)	0.0%
Transfer to CIP	(191,500)	(191,500)	-	(50,000)	(176,000)	252.0%
Total Financing Sources (Uses)	(1,080,500)	(71,500)	(1,200,000)	(1,250,000)	(1,376,000)	10.1%
Surplus (Deficit)	133,019	1,203,401	177,688	21,735	14,551	
Estimated Ending Fund Balance			177,688	21,735	192,239	

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 \$1,511,184 for the debt service obligations in 2021. A detailed breakdown of the total is in the table below:

	Principal	Interest	Total
Series 2000B	190,000	3,135	193,135
Series 2002B	30,000	900	30,900
Series 2006A	1,165,000	122,149	1,287,149
Total 2015 Payments	\$ 1,385,000	\$ 126,184	\$ 1,511,184

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 2021	1,385,000	126,184	1,511,184
FY 2022	1,220,000	105,998	1,325,998
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

2020 Debt Service Budget

	2017 Actual	2018 Actual	2019 Estimated	2019 Budgeted	2020 Budgeted	% Change
Estimated Beginning Fund Balance	1,235,167	1,348,603	1,632,214	1,632,214	1,883,847	
Revenue						
Debt Service Assessments	424,920	373,839	253,875	253,875	173,960	-31.5%
Penalties & Late Fees	7,450	6,604	4,706	5,100	2,500	-51.0%
Interest Income	8,800	24,661	33,132	11,000	24,000	118.2%
Total Revenue	441,170	405,104	291,713	269,975	200,460	-25.7%
Expenses						
SRF Principal	944,500	367,500	1,007,917	1,052,918	1,370,000	30.1%
SRF Interest	195,698	183,160	168,923	150,000	148,500	-1.0%
SRF Fees	76,536	70,833	63,240	72,000	60,000	-16.7%
Total Expenses	1,216,734	621,493	1,240,080	1,274,918	1,578,500	23.8%
Other Financing Sources (Uses)						
Transfer from Operating	889,000	500,000	1,200,000	1,200,000	1,200,000	0.0%
Total Financing Sources (Uses)	889,000	500,000	1,200,000	1,200,000	1,200,000	0.0%
Surplus (Deficit)	113,436	283,611	251,633	195,057	(178,040)	
Estimated Ending Fund Balance	1,348,603	1,632,214	1,883,847	1,827,271	1,705,807	

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 2020

- **Brush Creek WWTF Upgrades** **\$435,000**
The project includes replacing the headworks screen and compactor (including wiring and control panel), replacing rusted doors, installing a return activated sludge (RAS) pump and two base elbows in the RAS pit, and replacing an iron air pipe that failed in 2019.
- **Thousand Oaks 10th Plat PS Upgrade** **\$30,000**
Upgrades include a new control panel and terminal box to replace corroded and unsatisfactory components.
- **Sanitary Sewer Line Repairs** **\$50,000**
Staff planned to perform point repairs on certain sewer lines with known defects.
- **SSES Phase** **\$66,000**
The 2020 phase includes the inspection/evaluation of the lines in The National north of Highway 45; cleaning and televising lines along Blair Road, Graden Road, and Pleasant Drive; and monitoring the wastewater flow of the Rush Creek interceptor line.

Additional information regarding projects planned for 2020 and beyond can be found in Appendix A.

2020 Capital Improvements Plan Budget

	2017 Actual	2018 Actual	2019 Estimated	2019 Budgeted	2020 Budgeted
Estimated Beginning Fund Balance	1,043,053	1,212,256	1,145,408	892,321	524,921
Estimated SRF Balance	-		-	-	-
Revenue					
Connection Fees	327,443	448,000	405,453	250,000	750,000
Interest	-	-	-	-	-
Total Revenue	327,443	448,000	405,453	250,000	750,000
Expenses					
Capital Equipment	102	-	-	-	150,000
Collection System	-	26,048	36,000	125,000	50,000
Pump Stations	-	-	-	-	30,000
Treatment Facilities	211,468	600,000	537,000	440,000	435,000
Sanitary Sewer Evaluation Study	75,008	85,000	70,540	85,000	66,000
CIP Management	3,312	4,800	15,000	17,400	17,400
Total Expenses	289,890	715,848	658,540	667,400	748,400
Other Financing Sources (Uses)					
Transfer from Operations	131,650	201,000	-	50,000	176,000
Total Financing Sources (Uses)	131,650	201,000	-	50,000	176,000
Surplus/(Deficit)	169,203	(66,848)	(253,087)	(367,400)	177,600
Estimated Ending Fund Balance	1,212,256	1,145,408	892,321	524,921	702,521

2021 Budgeted	2022 Budgeted	2023 Budgeted	2024 Budgeted	2025 Budgeted	2026 Budgeted
702,521	658,921	632,461	895,703	(4,175,868)	(3,691,742)
-	-	-	-	-	-
330,000	330,000	330,000	330,000	330,000	330,000
-	-	-	-	-	-
330,000	330,000	330,000	330,000	330,000	330,000
-	-	-	-	-	-
360,000	400,000	-	-	-	-
70,000	40,000	-	45,000	-	30,000
11,000	40,000	200,000	5,500,000	-	-
100,000	53,100	53,100	53,100	53,100	53,100
17,400	17,400	17,400	17,400	17,400	17,400
558,400	550,500	270,500	5,615,500	70,500	100,500
184,800	194,040	203,742	213,929	224,626	235,857
184,800	194,040	203,742	213,929	224,626	235,857
(43,600)	(26,460)	263,242	(5,071,571)	484,126	465,357
658,921	632,461	895,703	(4,175,868)	(3,691,742)	(3,226,386)

NOTE: The budget figures for 2021 through 2026 are for planning purposes only. They will be evaluated on an annual basis and are subject to change based on SSES recommendations, regulatory changes, and/or emergencies.

Appendix

Appendix A Capital Improvement Plan