

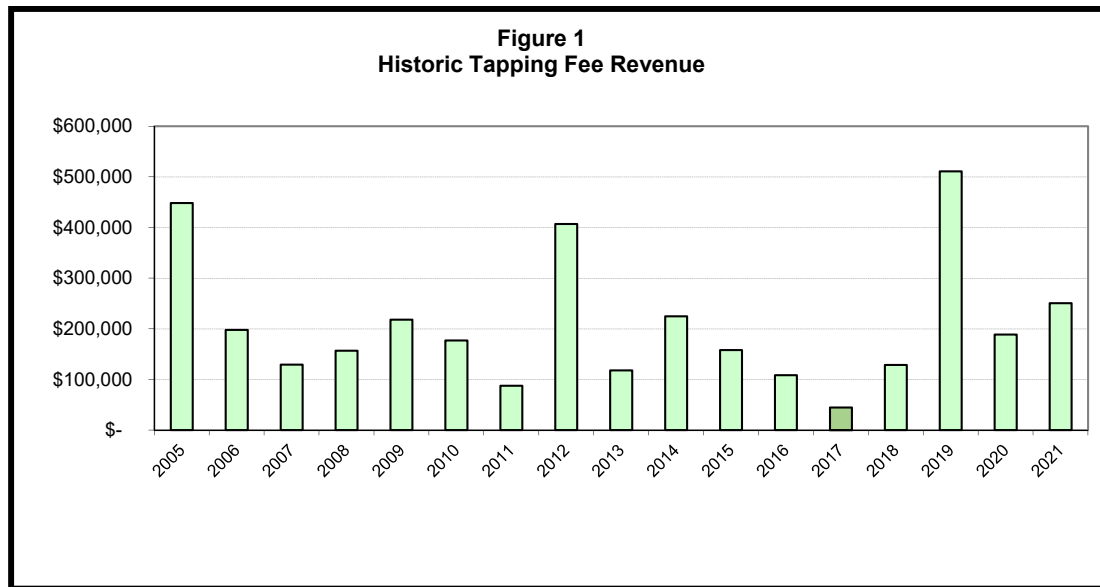
# Peters Township Sanitary Authority PROPOSED CAPITAL IMPROVEMENT PLAN FOR 2022 And 10-Year Capital Plan

## 1.0 INTRODUCTION

The Authority has included a capital improvement plan in its budget since 1996, and to a large extent it has been the effort that we invest in preparing the capital improvement plan, followed by implementing the plan during the year, which has helped the Authority achieve many of its objectives over the past two decades.

The Capital Plan recognizes the Authority continues in a reduced financial condition, attributed to the slowdown in the housing market, and which reduces our tap fee revenue, as well as our growth in operating revenue. The 2017 Tapping Fee revenue of \$44,663 was at an all-time low. The Township's 2013 Comprehensive Plan was approved, and with the implementation of the rezoning to higher densities in 2017. The budgeted 2021 tapping fee revenue was \$201,600, with \$250,471 received in revenues. The developments connecting to the system included, Brookwood Village, Sherwood Pond, Anthony Farms, Tuscany, Meadow Ridge, and Justabout Farms.

Figure 1 compares our 2021 forecasted and 2022 projected annual tap fee revenue with the previous 16 years. Note that 2012 was not a typical year in Tap Revenue due to General Purpose Tap Fees plus Special Purpose Tap Fees from the 29 Valley View properties, and 2019 the Waters residential facility was received.



*Note: The tap fee revenue for 2009 through 2015 includes tap fees reimbursed under Developer Construction Agreements. The developments with tap fee reimbursement agreements are described in Section 5.0.*

The Authority established that a \$2 million annual re-investment in our facilities should be considered the minimum necessary to maintain a “sustainable level of service”. See definition at right.

**Sustainable Level of Service**  
 A service level which provides the treatment and conveyance capacity for growth, while providing uninterrupted service to our customers, and meeting all regulatory requirements.

Thereby, necessitating regular sewer use rate increases to generate additional operating budget surpluses through the Equipment Replacement Allowance line item, which funds the capital improvement plan, in conjunction with tap fee revenue and investment interest.

This Equipment Replacement Allowance category was \$412,000 in the 2021 Operating Budget and in the 2022 budget is increased to \$520,000.

## **2.0 CAPITAL IMPROVEMENT FUND (CIF) and CONSTRUCTION FUND EXPENDITURES**

### **2.1 Capital Expenditures**

#### **Summary of Total Cumulative Project Expenditures to Date**

Project	Status	Project	Project Cost to Date as of 10/2021
Completed		BR SCADA	\$4,470
Completed		DC Minor Equipment	\$15,070
Ongoing		BR UV Upgrade	\$3,159,223
Ongoing		BR NPDES Renewal	\$81,465
On hold waiting DEP		DC NPDES Renewal	\$13,167
Complete		DC Sewer Improvements	\$4,812,103
Complete		Vehicles	\$39,400
Complete		Stonehenge Trunk Sewer	\$911,153
Ongoing		Deer Field Manor Transfer	\$26,578
Ongoing		Piney Fork Watershed 537 Plan	\$44,999
Postponed		Crestview Acres Replacement	\$13,987

### **2.2 Current Status of the Capital Improvements and CIF Balance**

The following table will provide the updated status of the Planned 2021 Capital Improvements. The Sources of Funds available were \$6,458,554, and the 2021 expenditures were \$2,579,094 leaving a balance of \$6,371,753.

The Planned Capital Expenditures totaled \$2,854,874, with projected totaling \$2,579,094.

**Table-I**  
Status of the 2021 Capital Improvement Projects

	Approved Budget	Actual Jan-Oct	Projected Total	Variance
Network Server/Computers	\$ 3,000	\$ -	\$ -	\$ 3,000
Tap Fee Reimbursements	-	-	-	-
Piney Fork Watershed 537 Plan	26,000	4,718	4,718	21,282
	29,000	4,718	4,718	24,282
<b>Treatment</b>				
BR Minor Equipment	16,200			16,200
BR SCADA	-	4,470	4,470	(4,470)
BR NPDES Renewal	\$ 50,750	\$ 21,560	\$ 23,560	\$ 27,190
BR UV Upgrades - Permit.Design	-	78,069	78,069	(78,069)
BR UV Upgrades Construction	2,348,800	2,194,590	2,271,492	77,308
BR UV Upgrades-Engineering CA	126,179	34,807	35,807	90,372
<b>Total Expenses</b>	<b>2,541,929</b>	<b>2,333,496</b>	<b>2,413,398</b>	<b>128,531</b>
DC NPDES Renewal	-	-	-	-
DC Minor Equipment	16,500	8,170	15,070	1,430
<b>Total Expenses</b>	<b>16,500</b>	<b>8,170</b>	<b>15,070</b>	<b>1,430</b>
<b>Sewer System</b>				
Vehicles	\$ 42,000	\$ 39,400	\$ 39,400	\$ 2,600
USC BR PS Capital Improv	38,200	20,914	22,914	15,286
VB Inter Augmentations	50,000	834	834	49,166
Other Sewer/Lining/Emergency P	50,000		700	49,300
<b>Total Expenses</b>	<b>180,200</b>	<b>61,148</b>	<b>63,848</b>	<b>116,352</b>
Stonehenge Construction		7,003	7,003	(7,003)
<b>Total Expenses</b>	<b>-</b>	<b>7,003</b>	<b>7,003</b>	<b>(7,003)</b>
Hidden Brook Engineering		700	-	-
DC Sewer Construction	78,745	77,057	77,057	1,688
<b>Total Expenses</b>	<b>78,745</b>	<b>77,757</b>	<b>77,057</b>	<b>1,688</b>
<b>Total Expenses</b>	<b>2,846,374</b>	<b>2,492,292</b>	<b>2,581,094</b>	<b>265,280</b>

**Table-I a**  
**Status of the 2021 Capital Improvement Projects**

Project	1	Construction of the Conveyance System Improvement Project (closeout) Estimated cost 2021: Oakwood Road/Giant Oaks Interceptor/HB Retainage: \$77,7057 The construction was completed, submission of a Fiscal Sustainability Report is required by PENNVEST for closeout of the Project.
Project	2	Brush Run Plant Optimization Project: Ultraviolet disinfection and chemical addition Estimated cost 2021: \$2,307,466 The construction is Substantially Complete, project closeout is contingent on the contractors' completion of outstanding punch-list items in early 2022.
Project	3	Brush Run Plant Rerate and NPDES Permit Amendment Estimated cost: \$21,560 The Plant Rerate has been partially completed, with \$17,500 remaining for Rerate and NPDES Permit Amendment in 2022.
Project	4	Piney Fork 537 Plan Estimated cost: \$4,718 Peters Township Council adopted the 537 Plan for the Piney Fork Watershed. Sale of the subdivided property is projected for 2022.
Project.	5	USC BR PS Capital Improvements: Planning and Design to Redirect Fairways Pump Station/Force Main to USC Estimated cost: \$38,200 Application for Sewage Facilities Planning was made in 2021, with design and construction expected to commence in 2022 upon Planning approval.
Project	6	Other Sewer Lining Projects / Emergency Repairs Estimated cost: \$50,00 Project not undertaken in 2021 and budgeted for 2022
Project	7	Valley Brook Interceptor Augmentation Design Estimated cost: \$50,000 Project not undertaken in 2021 and budgeted for 2022 contingent on grant award
Project	8	Vehicle Replacement: 2012 van replacement Estimated cost: \$39,400 Completed with purchase of 2021 Ford transit van
Project	9	DC Minor Equipment Estimated cost: \$8,170 Completed stock yard construction and inventory acquisitions
Project	10	BR Minor Improvements Estimated cost: \$16,200 Project not undertaken ins 2021 and budgeted for 2022 with parking lot paving
Project	11	Sewer Line Camera and Equipment: Camera crawler Estimated cost: \$8,500 Project not undertaken in 2021 and under evaluation
Project	12	Network/Computer Estimated cost: \$3,000 Project not undertaken in 2021 and budgeted for 2022
Project	13	Stonehenge Trunk Augmentation Estimated cost: \$7,003 Project closed out July 2021
<b>Projected Total</b>	<b>\$</b>	<b>\$2,581,094</b>
<b>Total Expenditures Planned: \$ 2,854,874    Projected Expenditures: \$ 2,581,094</b>		

## 3.0 CAPITAL PLAN FOR 2021

### 3.1 Sources of Funds

This section describes the sources of funds for 2021 as well as discussing projections for future years. The Authority's capital improvement projects are funded by a combination of:

- General Purpose Tapping Fees
- Special Purpose Tapping Fees
- Assessments
- Operating Budget Surplus (Debt Service Cover, Equipment Replacement Allowance, and Capital Transfer)
- Investment Interest
- Grants, if any
- Borrowed Funds, if any

**Tapping Fees** – These are charges imposed on new customers as they connect to the sewer system. The current tapping fee is \$3,200/equivalent dwelling unit. The maximum amount a municipal authority can charge is governed by the formula prescribed in the Municipality Authorities Act. Essentially, it is the cost of the Authority's unencumbered infrastructure assets divided by the design treatment capacity (in gallons/day) to arrive at a cost/gallon of capacity. For the Authority this cost is \$12.05/gallon. Residential units require 258 gallons/day of capacity; therefore, the capacity charge is \$3,109, plus \$91 for the Customer Facilities/Connection Fee, which covers the permitting and inspection process. Non-Residential units are charged a tapping fee based on the estimated maximum monthly average day water consumption times the \$12.05/gallon, with a minimum consumption of 258 gallons/day. The tapping fee calculation was last updated in 2008.

**Tapping Fee Reimbursements** – All new customers connecting to the sewer system pay a tapping fee. However, under special circumstances the Authority may enter into a Tap Fee Reimbursement Agreement with a Developer, whereby the Developer constructs capital improvements for the Authority that are not otherwise required for its development, and dedicates the improvement to the Authority in exchange for future installments to be paid at such time when tapping fees are collected as units are connected in the development. While the Authority has used this mechanism only sparingly over the years. During 2009 two developments were completed that included Tap Fee Reimbursement Agreements. These developments are: 1) Overlook Plan, which included reimbursement up to \$89,600 in tap fees; and 2) Willoughby Woods Plan (*now called Brookwood Villas*), which included reimbursement up to \$32,084 in tap fees. The Willoughby Woods exhausted its tap reimbursements in 2013; thereby, only the Overlook Plan Tap Fee Reimbursement Agreement remains, with three tap reimbursements available.

Detailed descriptions of the projects with Tapping Fee Reimbursements, and the remaining balance, are provided in Section 5.0 of this report.

**Tapping Fee Reimbursement Process** – For developments with Tap Fee Reimbursement Agreements, whenever a sewer tap is obtained, the tap fee paid is deposited in the CIF and recorded as tapping fee revenue. At a subsequent Board meeting, the tap fee reimbursement due the Developer is listed on the CIF's requisition as a Tap Reimbursement to the Developer, and approved by the Board. At that time the reimbursement becomes a CIF expense.

**Special Purpose Tapping Fees** – The Municipality Authorities Act provides for charging a Special Purpose Part to the tapping fee for special purpose facilities, such as sewer main extensions, that are applicable to a particular group of customers, based upon the cost of the facilities and the number of customers served. This provides an alternative to public improvement assessment programs for recovering the cost of sewer main extensions from the customers served. Since the Special Purpose Part of a tapping fee can be based on the design capacity of the facilities expressed in Equivalent Dwelling Units, the cost of a project can be equally distributed across all existing customers and all future customers served by the facility, and avoid the costly expenses associated with assessment programs. The Authority has four Special Purpose Tapping Fee districts established, as described in a memo at the end of the Capital Plan. Periodically, the Special Purpose Tapping Fee amounts are indexed forward using the Engineering News Record cost index, essentially adjusting the fee by the inflation index. The last adjustment was in July 2013. Review of the fee was completed in 2020.

The following sewer extensions were imposed a Special Purpose Part Tapping:

Project Name	Max. EDUs	Accept. Date	Spec. Purp. Fee, Initial	Spec. Purp. Fee Current/Date	9/30/19 Balance	Lots Outstanding
Severns Ext	3	12/13/2005	\$4,415.00	\$6,230 9/30/2020		948 E. McM
Hays Road Ext. Engineering Only	4	10/11/2005	\$900.00	\$1,346, 9/30/2020		Parcel 540-002-04-03-0003-00
2007 E. McMurray Ext.	7	6/4/2008	\$7,501.14	\$10,421, 9/30/2020		864 E. McM
2012 Valley View Ext						
Component B	310	8/14/2012	\$870.00	\$1,050, 9/30/2020	\$262,388	250 projected
Component C	46	10/9/2012	\$2,330.00	\$2,811, 9/30/2020	\$20,991	9 lots
Component CL	20	10/19/2012	\$1,870.00	\$2,207, 9/30/2020	\$44,153	20 projected
Subtotal:	376					
Total:	390			<b>Total Balance:</b>	\$371,419	311 lots

**Assessments** – Historically, the Authority used sewer assessment programs to recover the cost of sewer extensions from the property owners benefiting. The most recent assessment program was for the Ivy Lane Sewer Extension project in 2003. The Authority allows sewer assessments (and Special Purpose Tapping Fees) to be paid on repayment schedules, and a number of repayment schedules still exist for the Ivy Lane assessments. Payments total approximately \$5,250 annually. The Authority also has two agricultural deferred assessments outstanding which total \$88,422. These are summarized in the table below. We expect Lushen agricultural property to develop during 2021.

Agriculture Deferments					
Project Year	Project Name	Act 71 Cert. Date	Property Name	Property Address	Assessment Amount
1989	Brookwood Rd. Ext	6/10/1992	Lushen	216 Sugar Camp Rd	\$73,000
1989	Beacon Manor Ext.	11/13/1991	Munroe	267 Thompsonville Rd	\$15,422
				<b>Total:</b>	<b>\$88,422</b>

**Operating Budget Surplus, Debt Service Coverage, and Equipment Replacement Allowance** – Any operating surplus is transferred to the CIF. The Authority’s 2016 Trust Indenture requires that we budget each year the annual debt service, plus 10%, which resulted in surplus at the end of the year and is transferred to the CIF.

The Authority also budgets an Equipment Replacement Allowance/Capital Transfer each year. If these funds are not used for equipment replacement during the year the remaining balance is transferred to the CIF. If there are no charges to the account, the balance is transferred to the CIF after final reconciliation of year-end expenses occurs in February, 2021.

The Authority frequently uses in the Operating Budget the line item Equipment Replacement Allowance as a “budget balancer” to postpone rate increases. For instance, it was budgeted at \$220,000 in 2020, but in 2021 Operating Budget increased to \$412,000, and for 2022 \$520,000.

**Investment Interest** – The Authority prudently invests its CIF funds and Construction Funds in accordance with the Trust Indenture restrictions and the Municipality Authorities Act. Most of savings are in CD’s offering a 2% interest rate.

**Capital Improvement Fund** –These CIF funds are currently invested at CFS Bank in interest bearing accounts and one CD’s earning various interest rates, and Slovenian Savings and Loan Association. The Authority may also invest in short-term government securities from time to time.

**Grants** – The following is a listing of grants received:

Year	Grant Program	Project	Grant	Balance
2009	H2O PA	Brush Run Wet Weather	\$600,000	\$0
2009	Conservation Works	Blower VFDs/ DO Control	\$137,250	\$0
2010	LSA	Valley View Sewer Ext.	\$300,000	\$0
2010	H2O PA	Valley View Sewer Ext	\$225,000	\$0
2012	LSA	DC Plant Replacement Design	\$85,000	\$0
2013	NA	NA	\$0	NA
2014	PA Small Water & Sewer	Stratford PS Force Main Replacement	\$56,000	\$0
2015	LSA	DC Plant Replacement Construction	\$500,000	\$0
2017	LSA	DC Interceptor Replacement	\$300,000	\$0
2020	LSA	BR UV Improvements	\$250,000	\$250,000
		<b>Total:</b>	<b>\$2,453,250.00</b>	<b>\$250,000.00</b>

Grant Applications Pending

Application for 2022 was submitted to the Local Share Account in the amount of \$660,000 for the 2022 Sewer Rehabilitation Project. The project will include the Augmentation of the Lower Valley Brook (Lower & Upper Pelipetz) Sewer Capacity Augmentation – Approximately 5,670 Linear Feet, and Sewer Replacement of the Crestview Acres – Physical location in the vicinity of Elizabeth and Marble Drive – Approximately 3,000 Linear Feet. Both projects have been outlined in the 10-year Capital Plan. The Lower Valley Brook (Lower and Upper Pelipetz) portion is the final component of the 2008 Valley Brook Interceptor Comprehensive Plan which was approved by the PaDEP November 25, 2009. The Crestview Acres portion sewers have well reached the end of their structural useful life. In this area the sewers were installed in the early 1960’s by a developer, prior to the formation of the Sanitary Authority. These sewers are considered the most compromised and structurally deficient sewers and manholes in the Authority’s service area.

### Sewage Planning Grants

The Township/Authority has been approved a planning grant for the following project:

- Donaldson’s Crossroads 537 Sewage Plan, grant amount: \$37,455, (confirmed, however, no funds budgeted by the state).

The grant proceeds are released by PaDEP after the planning document is approved by the PaDEP, provided funds are available in the state budget.

### Future Grant Applications

#### **Borrowed Funds**

- Pennvest loan for the 2003 Ivy Lane Sewer Extension project with a balance of \$57,517 as of December 31, 2021, at an interest rate of 2.774%.
- Pennvest loan for the 2017 DC WPCP Replacement project. The Loan is \$11,000,000 with a term of 20-years. The interest rate during the first 5-year period is 1.055%, with a rate of 1.835% for the remaining 15 years. The balance as of December 31, 2021 is \$9,321,495.
- Guaranteed Sewer Revenue Bond issue, Series 2021, in the amount of \$9,190,000 for the DC WPCP Replacement Project. The term of the bond issue is 24-years, and the interest rate is 2.80%. The balance as of December 31, 2021 is \$9,070,000.
- Pennvest loan for the 2020 Conveyance System Improvements project. The Loan is \$5,255,000 with a term of 20-years. The interest rate during the first 5-year period is 1.0%, with a rate of 1.743% for the remaining 15 years. The balance as of December 31, 2021 is \$4,757,746.

### **3.2 Recommended Capital Improvement for 2022**

The funds available for CIF projects in 2022 are estimated as follows:

Balance of CIRF Funds	\$ 6,369,753
Tap and Assessments budgeted	137,500
Equipment Replcmt Allowance (prior year)	520,000
Operating Surplus	279,000
Bond, Grant, Loan	300,000
Sale proceeds of property	100,0000
<b>Total Capital Funding</b>	<b>\$ 7,706,253</b>

The Authority’s goal is to maintain a minimum balance of \$2,000,000 balance in the CRF at all times.



**Table-III**  
**RECOMMENDED 2022 CAPITAL IMPROVEMENT PROJECTS**

Project	1	Brush Run Plant Optimization Project: Ultraviolet disinfection and chemical addition: Project Closeout Estimated cost: \$59,000
Project	2	Brush Run Plant Rerate and NPDES Permit Amendment; NPDES Renewal Estimated cost: \$54,500
Project	3	Piney Fork 537 Plan / Church Hill Property Sale Estimated cost: \$26,000
Project	4	Deerfield Manor/Fairways Pump Station/Force Main to USC: Sewage Facilities Planning, Design and Construction Estimated cost: \$98,400
Project.	5	Other Sewer Lining Projects / Emergency Repairs Estimated cost: \$50,000
Project	6	Valley Brook Interceptor Augmentation Design Estimated cost: \$104,800
Project	7	BR Minor Improvements Estimated cost: \$73,500
Project	8	Sewer Lateral Push Camera Estimated cost: \$12,500
Project	9	Network/Computer – Field Laptop Estimated cost: \$3,000
<b>Projected Total</b>		\$481,700

**Table IV – Recommended 10-Year Capital Plan**

<b>SOURCES OF FUNDS</b>	<b>Projected 2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>	<b>2030</b>	<b>2031</b>
Balance of CIRF Funds	\$2,956,829	\$ 6,369,753	\$ 7,087,053	\$ 7,073,953	\$ 6,300,253	\$ 5,942,753	\$ 5,730,253	\$ 5,812,753	\$6,110,253	\$5,955,253	\$5,830,253
Tap and Assessments Projected	250,471	-	54,400	20,000	20,000	20,000	20,000	20,000	-	-	-
Equipment Replcmt Allowance (prior year)	412,000	520,000	520,000	450,000	450,000	400,000	400,000	400,000	-	-	-
Operating Surplus	680,000	279,000	52,500	52,500	52,500	52,500	52,500	52,500	-	-	-
PV Loan/Loan/Bond	1,893,943	-	-	-	-	-	-	-	-	-	-
Grant - BR	250,000	300,000	-	-	-	-	-	-	-	-	-
TWP/School portion	15,311	-	-	-	-	-	-	-	-	-	-
Sale Proceeds Piney Fork property	-	100,000	-	-	-	-	-	-	-	-	-
<b>TOTAL CAPITAL FUNDING</b>	<b>\$ 6,458,554</b>	<b>\$ 7,568,753</b>	<b>\$ 7,713,953</b>	<b>\$ 7,596,453</b>	<b>\$ 6,822,753</b>	<b>\$ 6,415,253</b>	<b>\$ 6,202,753</b>	<b>\$ 6,285,253</b>	<b>\$ 6,110,253</b>	<b>\$ 5,955,253</b>	<b>\$ 5,830,253</b>
<b>CAPITAL EXPENDITURES</b>											
<b>TREATMENT PLANTS</b>											
BR Minor Improvements	-	73,500	9,000	-	-	40,000	40,000	40,000	-	-	-
BR SCADA Improvements	4,470	-	18,000	-	-	-	-	-	-	-	-
BR Security Improvements	-	-	50,000	-	-	-	-	-	-	-	-
BR Belt Press Replacement	-	-	50,000	-	350,000	400,000	-	-	-	-	-
BR Blower Upgrade/Replacement	-	-	125,000	-	100,000	-	-	-	-	-	-
BR NPDES Renewal/re-rate	23,560	54,500	-	-	-	-	35,000	-	-	-	-
BR NPDES/Optimization Project -Design	78,069	-	-	-	-	-	-	-	-	-	-
BR NPDES/Optimization Project - CA Eng	35,807	19,000	-	-	-	-	-	-	-	-	-
BR NPDES/Optimization Project - Construction	2,271,492	40,000	-	-	-	-	-	-	-	-	-
DC Minor Equipment	15,070	-	-	25,000	10,000	45,000	-	-	35,000	-	-
DC NPDES Permit Renewal	-	-	-	-	-	-	-	-	-	-	-
DC Dewatering Engineering & Const&Demo	-	-	-	-	-	-	-	-	-	-	-
<b>SEWER SYSTEM</b>											
DC Interceptor Improvements/retainage	77,057	-	-	-	-	-	-	-	-	-	-
Hidden Brook Emergency Sewer Repair	700	-	-	-	-	-	-	-	-	-	-
Stonehenge Trunk Augmentation	7,003	-	-	-	-	-	-	-	-	-	-
Cross gates Bremen Lane Replace	-	-	-	-	-	75,000	225,000	-	-	-	-
VB Inter Augmentations	834	104,800	400,000	500,000	-	-	-	-	-	-	-
Crestview Acres Sewer Replace	-	100,000	100,000	450,000	250,000	-	-	-	-	-	-
Deer Field Manor/Linksview Dm Transfer	22,914	98,400	-	-	-	-	-	-	-	-	-
Other Sewers/Lining/Emergency Repairs	-	50,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000
Sewer Line Camera/Flow Meters	-	12,500	-	-	35,000	-	-	-	-	-	-
Vehicles	39,400	-	50,000	-	60,000	50,000	-	60,000	45,000	50,000	60,000
<b>OFFICE ADMINISTRATION</b>											
Tap Fee Reimbursements	-	-	-	3,200	-	-	-	-	-	-	-
Server Hardware/Software	-	3,000	2,000	-	-	15,000	-	-	-	-	-
Phone System	-	-	4,000	-	-	-	-	-	-	-	-
GIS Improvements	-	-	-	-	-	-	-	-	-	-	-
Legal/Financial	-	-	-	-	-	-	-	-	-	-	-
Piney Fork Property (sell portion) 537 Plan	4,718	26,000	-	-	-	-	-	-	-	-	-
<b>TOTAL CAPITAL EXPENSES</b>	<b>\$2,581,094</b>	<b>\$481,700</b>	<b>\$640,000</b>	<b>\$1,296,200</b>	<b>\$880,000</b>	<b>\$685,000</b>	<b>\$390,000</b>	<b>\$175,000</b>	<b>\$155,000</b>	<b>\$125,000</b>	<b>\$135,000</b>
<b>ENDING BALANCE</b>	<b>\$6,369,753</b>	<b>\$7,087,053</b>	<b>\$7,073,953</b>	<b>\$6,300,253</b>	<b>\$5,942,753</b>	<b>\$5,730,253</b>	<b>\$5,812,753</b>	<b>\$6,110,253</b>	<b>\$5,955,253</b>	<b>\$5,830,253</b>	<b>\$5,695,253</b>

### **3.2.1 Project Descriptions**

#### **Project No. 1. Brush Run Plant Optimization Project – Ultra-violet Disinfection and Chemical Addition Project Closeout**

The project was deemed Substantially Complete on September 17, 2021. While the contractors complete final punch-list items in the early part of 2022, the items required for the project closeout will be completed by the project engineer subsequently.

#### **Project No. 2. Brush Run Plant Rerate & NPDES Permit Amendment**

The Brush Run WPCP currently has a permitted daily hydraulic flow rating of 2.0 MGD. In actuality, the facility can accommodate average daily hydraulic flows in excess of 2.3 MGD. Recent years have seen increased flow through the plant, particularly starting in 2018. The observed average daily flow from January 2018 through May 2019 was 1.7 MGD. To take advantage of the existing actual capacity and improve the ability to handle the projected increase in flows, the Brush Run WPCP will be rerated to increase the design average daily hydraulic flow from 2.0 MGD to 2.3 MGD while also developing a maximum month hydraulic design flow for Chapter 94 hydraulic overload purposes.

The existing chlorine disinfection system was removed and replaced with ultraviolet (UV) disinfection as part of the aforementioned Project 1 (Brush Run Plant Optimization Project). As a consequence of the UV Project, the Total Residual Chlorine (TRC) effluent parameter in the current NPDES Permit will be removed via a permit amendment. Due to the Authority's experience with GHD on the Brush Run Plant Optimization Project and the DC WPCP Project, GHD was selected to manage this project in 2021-2022.

The NPDES Permit expiration date for the Brush Run Plant is February 1, 2023. Consequently, testing required for the renewal application typically takes place 180 days prior to the expiration date, thus preliminary testing and application preparation work has been budgeted based on Task Order No. 2021-1 with GHD.

#### **Project No 3. Piney Fork 537 Plan**

The Piney Fork 537 Plan was completed and adopted by Peters Township Council on July 26, 2021. The Plan was submitted to PADEP on August 10, 2021 and was under review at the time of this budget. Engineering assistance has been budgeted to complete the task in 2022.

In 2005 the Authority purchased a house within the sewershed with the intention of subdividing the property and constructing a future pump station. HRG Engineering surveyed the property and proposed a subdivision of the property to accommodate a future pump station for the sewershed. With the acceptance of the property subdivision by Peters Township in 2021, the Authority intends to sell the property by formal bidding in 2022. Legal and engineering assistance has been budgeted to complete the task.

#### **Project No. 4. Deerfield Manor/Fairways Pump Station Upgrades and New Force-main to USC: Sewage Facilities Planning, Design and Construction**

Due to wet weather related issues at the USC Brush Run Pump Station, it has been agreed that sewage flows from the Deerfield Manor service area of USC that utilizes their Brush Run Pump Station will be redirected by gravity flow into the PTSA sanitary system. As per the recently adopted Second Amendment to the 1950 Agreement, all parties concur that sewage flows from the PTSA's existing Fairway Estates Pump Station will be redirected by a new force-main to the USC collection system.

HRG submitted the sewage facilities planning application for the exchange of sewage flows between USC (Allegheny County) and PTSA (Washington County) to PADEP on July 6, 2021. The application was under review by PADEP at the time of this budget. Peters Township Council adopted the planning module

in 2021. HRG drafted preliminary drawings for the proposed force main alignment in 2021 while concurrently drafting the water quality management permit. Completion of sewage facilities planning, design, and construction are anticipated

#### **Project No. 5. Other Sewer Lining Projects / Emergency Repairs**

This project encompasses lining projects (Manhole to manhole lining) and emergency repairs. This type of repair does not include routine repairs by Authority staff, but would be any large scale repair projects that would require outside assistance by contractor. Examples of this type of repair would be unplanned sewer repairs undertaken due to landslides, such as occurred in 2018 at Hemlock Drive and Buffalo Ridge. This line item has been funded each year of the capital plan.

#### **Project No. 6. Lower Valley Brook Interceptor Sewer Augmentation (Upper Pelipetz) – Design**

The primary goal of this project is to increase the Valley Brook Interceptor sewer capacity to address the following items: eliminate the sanitary sewer overflows experienced during peak wet weather events, accommodate the recently revised Township zoning that allows a more dense development in the Township, and provide for future growth for the Brush Run and Piney Fork sewersheds. This project is one of the final components in the Authority's 2008 Valley Brook Interceptor Comprehensive Plan, which was requested by PADEP to address the aforementioned capacity related issues.

To manage the finances associated with the Project, the Authority has phased the augmentation for the Lower Valley Brook Interceptor into Upper Pelipetz (phase 1) and Lower Pelipetz (phase 2). The Upper Pelipetz project will encompass augmentation of approximately 2,050 LF of 12", 15" and 18" diameter clay pipe. Design and permitting has been budgeted for 2022, with construction of phase 1 in 2023. The remaining 3,620 LF of the Lower Pelipetz portion is planned for 2024.

#### **Project No. 7. Brush Run Minor Improvements – Belt Filter Press Drain Pump, BOD Laboratory Incubator, Laboratory Autoclave Oven, Press Room Lighting Replacement, Parking Lot Paving**

This item encompasses the replacement of the second Belt Filter Press drain pump station pump at a cost of \$8,000. The pump station is a dual pump arrangement, with the first of the pumps replaced in 2020. Both of the pumps have outlived their useful life expectancy. Prior to pump replacement, both pumps would operate to keep up with the flow coming from the belt filter press. Also included here is replacement of the BOD incubator in the laboratory at an estimated cost of \$6,000. This unit is over 33 years old, while the unit remains operational at this point in time, we have included replacement to be proactive. Replacement of the Autoclave oven (circa 1994) has also been budgeted, as the needed repairs for the current unit are cost prohibitive. Replacement of the Autoclave is \$2,000. Upgrading of the press room lighting to LED lighting has been included in this project to address the malfunctioning and age of the existing fluorescent light fixtures (\$2,000). Repaving of the parking lot and drive areas has been budgeted at \$55,000. The original asphalt parking lot (circa 1984) is in poor condition, with repaving planned at the completion of the BR Plant Optimization project.

#### **Project No. 8. Sewer Lateral Push Camera**

The existing sewer lateral push camera is utilized regularly for building sewer inspections and is a vital piece of equipment of the dye test program (275 annual dye test inspections). Maintenance and repair of the existing camera have been more frequent in recent years, resulting in portions of the camera reel length being removed due to damage or wear. Most recently the camera head has become worn to a point where the visual quality of the video image has declined, compromising the video inspections. A replacement camera has been budgeted for \$12,500.

#### **Project No. 9 Server Hardware/Software – Field Laptop / iPad**

To automate and streamline field operations, the addition of a field laptop or iPad is budgeted for 2022 to allow field personnel limited access to the sewer system database for field inspections (building sewer, dye test, grease interceptor, etc.) and marking of PA OneCall sewer location requests.

## **4.0 FUTURE YEARS CAPITAL PROJECTS**

The 10-year capital plan beyond 2022 is summarized in the Table IV. It identifies the revenues and sources of funds at the top of the page and capital expenditures on the lower half. Table IV is used to identify the cash flow required to construct the known or anticipated projects. One of the objectives of the 10-year capital plan is to manage our CIRF balance at \$500,000 or greater. As can be seen from Table IV the CIF balance remains at \$500,000 or above through 2027. The projects planned beyond 2022 are not intended to be all inclusive, but provide a magnitude of cash flow requirements. In order to achieve the necessary cash flow, the Equipment Replacement Allowance to generate surplus funds will need to be regularly increased.

### **2023 through 2024 Projects/Expense Summary**

#### **Treatment Plants:**

- Brush Run Belt Filter Press Conveyor Belt Replacement- \$9,000 (2023)
- Brush Run Computer and Software Upgrades - \$18,000 (2024)
- Brush Run Actuated Gate - \$50,000 (2024)
- Brush Run Belt Filter Press Replacement (Design) - \$50,000 (2024)
- Brush Run Blower No.1 Replacement - \$125,000 (2024)
- Donaldson Crossroads NPDES Permit Renewal - \$25,000 (2024)

#### **Sewer System:**

- Crestview Acres Sewer Replacement Design \$100,000 (2023), construction \$450,000 (2024)
- Valleybrook Interceptor Augmentation (Upper & Lower Pelipetz Construction \$900,000 (2023-2024)
- Emergency Repairs \$75,000 (2023-24)
- Vehicles \$50,000 (2023)

#### **Office and Administration:**

- Tap Fee Reimbursement \$3,200 (2024)
- Phone System Upgrades \$4,000 (2023)
- Server Hardware / Software Upgrades \$2,000 (2022)

### **2025 through 2031 Projects/Expenses**

#### **Treatment Plants:**

- Brush Run WPCP Minor Improvements: Projected \$120,000 (2026-2028)
- Brush Run WPCP Belt Press Replacement \$750,000 (2025-2026)
- Brush Run WPCP Digester Blower Replacement \$100,000 (2025)
- Brush Run WPCP NPDES Permit Renewal \$35,000 (2027)
- DC WPCP Minor Improvements SCADA: Projected \$45,000 (2026)
- DC NPDES Permit Renewal \$45,000 (2025, 2029)

#### **Sewer System**

- Crestview Acres Sewer Replacement \$250,000 (2025)
- Crossgates Bremen Lane Sewer Replacement \$300,000 (2026-27)
- Sewer Line Camera Equipment (Lateral Launch) \$35,000 (2025)
- Emergency Repairs \$525,000 (2025-30)
- Vehicles \$325,000 (2025-30)

#### **Office and Administration**

- Network Server – Hardware and Software \$15,000 (2027)

## **5.0 TAP REIMBURSEMENT PROJECT DESCRIPTIONS**

The following project description is for the only remaining project that includes tap fee reimbursements.

**Maple Lane Pump Station** – The Overlook Plan was going to require a new sewage pumping station that would be located just several hundred feet downstream of the Authority’s existing Timbercrest Pump Station, which was constructed in 1972. The Developer agreed to increase the capacity of his proposed pump station from 27 units to 64 units to provide for the 37 units from the Timbercrest Plan. The Authority participated in specific capacity related pump station tasks. The total pump station/force main project cost exceeded \$500,000; however the Authority only participated in \$391,000 of the cost, of which \$199,030 was the Authority’s share. The Authority paid \$109,430 of this total directly, paying for the design engineering, construction observation, emergency generator, and other equipment. The \$89,600 balance was paid through tap fee reimbursements. The balance in tap fee reimbursements as of November 30, 2017 was \$9,600.

**End of Report**