Butler Area Sewer Authority

Butler County, Pennsylvania

Consulting Engineer's Annual Report and 2023/2024 Fiscal Year Budget

August 2023

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Project No.: H/244008/001

HATCH

1600 West Carson Street, Suite 1, Pittsburgh, PA 15219

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Executive Summary

This annual report, prepared for the Butler Area Sewer Authority, presents a review of the Sewer System operation and projected financial status for the fiscal year ended July 31, 2023. Additionally, this report identifies needed maintenance and capital addition items and includes the 2023/2024 operating budget.

The conclusions and recommendations of this report are as follows:

- The sewerage facilities have operated continuously and successfully during the past fiscal year and numerous capital additions, improvements, and major maintenance/replacement projects were accomplished.
- Extraordinary repair/replacement and capital addition projects recommended for starting and/or completion in fiscal year 2023/2024 include the following projects at the sewage collection system, pumping station facilities, and treatment plant: Rock Lick Pump Station (Contract 2021-03); Hansen/Whitestown Road Sewer; Alameda Park Sewer Upgrade; 2019 Corrective Action Plan (CAP); Sewer Rehabilitation Project with Contractor State Pipe Services (Contract No. 2022-2023CAP); and Contract 2022-06 with Contractor Roto- Rooter.
- The current replacement cost of the evaluated assets of BASA is $150,751,414 as reported by Industrial Appraisal.
- The assessed current value (ACV) of the evaluated assets of BASA is $101,118,580 as reported by Industrial Appraisal.
- The current rate structure for sewer service charges effective July 31, 2023, should generate sufficient revenues to meet the Trust Indenture requirements and to provide for proper operation, maintenance, and repair of the Sewer System in fiscal year 2023/2024.
- Insurance coverage maintained on the Sewer System should continue to be reviewed and updated annually to ensure replacement values are up to date and meet the requirements of the Trust Indenture.

1. System Review

The wastewater treatment plant was operated continuously and successfully during the past fiscal year and effluent permit discharge concentrations were met on both a monthly and yearly average basis. Table 1-1 was prepared using data obtained from the operator's monthly performance log and summarizes the operational and performance data for the 12-month period from August 2022 through July 2023.

Table 1
Sewage Treatment Plant 2022-2023 Performance Data

Month	Average Flow (MGD)	$CBOD_5$		Total Suspended Solids		Ammonia		Fecal Coliform
		Average Effluent (mg/L)	Estimated Removal (%)	Average Effluent (mg/L)	Actual Removal (%)	Average Effluent (mg/L)	Actual Removal (%)	Average Effluent (Geo Mean) (MPN/100 mL)
August 2022	4.170	< 3.07	98.6%	< 4.0	98.7%	< 0.124	99.32%	< 1
Septmember 2022	4.132	< 3.06	98.3%	< 3.8	98.6%	< 0.131	99.26%	< 2
October 2022	4.351	< 3.00	98.3%	< 4.5	98.2%	< 0.172	98.93%	< 4
November 2022	6.481	< 3.03	97.9%	< 4.9	97.4%	< 0.257	97.98%	< 3
December 2022	6.437	< 3.01	97.7%	< 3.4	97.6%	< 0.590	94.22%	< 2
January 2023	9.374	< 3.10	96.5%	< 4.0	96.2%	< 0.529	92.95%	< 4
February 2023	5.268	< 3.00	98.0%	< 3.3	98.3%	< 0.298	97.94%	< 2
March 2023	8.109	< 3.05	97.4%	< 4.3	96.9%	< 0.464	95.70%	< 2
April 2023	5.703	< 3.43	97.9%	< 3.9	98.0%	< 0.183	98.72%	< 2
May 2023	4.974	< 3.03	98.2%	< 3.6	98.5%	< 0.109	99.30%	< 1
June 2023	4.149	< 3.0	98.7%	< 4.4	98.8%	< 0.108	99.45%	< 2
July 2023	4.539	< 3.03	98.4%	< 3.5	98.8%	< 0.141	99.19%	< 2
Annual Average	**5.641**	**< 3.07**	**98.0%**	**< 4.0**	**98.0%**	**< 0.259**	**97.75%**	**< 2.3**
NPDES Limits	10.0			30				
5/1-10/31		12.0				2.0		200.0
11/1-4/30		24.0				5.5		2000.0

The operating records show that flow to the plant averaged 5.641 million gallons per day (MGD) during this twelve-month period, with the highest monthly average flow of 9.374 MGD occurring in January 2023. The annual average effluent carbonaceous biological oxygen demand ($CBOD_5$), total suspended solids, and ammonia values were <3.07, <4.0, and <0.259 milligrams per liter (mg/L) respectively. After sanitation practices, the annual average effluent

fecal coliform value reported as a geo mean was <2.3 MPN/100 mL. Exceeding an average of 97% removal efficiency for the year, ammonia, $CBOD_5$, and total suspended solids effluent monthly averages were well below the current National Pollutant Discharge Elimination System (NPDES) permit limitations. While the monthly average NPDES effluent permit limits are displayed in Table 1-1 above, all discharge parameters are included in "Appendix A" of this report.

2. Capital Additions, Improvements, and Extraordinary Maintenance/Replacement

During the 2022-2023 fiscal year, the Authority completed numerous capital additions, improvements, and major maintenance/replacement projects. The major projects that were completed during the fiscal year include the following:

- Contractor (Process and Data Automation) along with Authority staff installed new hardware and software as part of Phase 3 of the Remote Sites (pump stations) SCADA upgrade. ($120,368)
- Contractor (Process and Data Automation) along with Authority staff installed internet capabilities to support the SCADA project, Phase 3 at remote sites (pump stations). ($34,060)
- Contractor (Metal Fence Supply) repaired the fence at Center and Diamond Pump Stations. ($5,499)
- Consultant (HRG) evaluated the installation of a dual auger screen system at the Monroe Pump Station. ($2,578)
- Contractor (DRV) provided and installed 230 V, 15hp, Duplex VFD at the Garden Grove Pump Station. ($22,300)
- Authority purchased (Halliday Products) trash basket, rails, hoist, and hoist socket ($3,572).
- Contractor (DXP Total Equipment) removed one sluice gate valve from the square chlorine contact tank distribution box. ($9,150).
- Contractor (Troy Jay Construction) removed two sluice gates, then installed three new sluice gates in the square chlorine contact tank distribution box. ($13,817).
- Consultant (Hatch) designed the Butler Memorial Park Sewer Upgrade Project, ($14,065), Contractor (Hiles Excavating) completed the work. ($55,725). Contractor (Bauer Excavating) raised one manhole. ($4,200). The project was conducted under an emergency status.

- Contractor (Bauer Excavating) repaired the 16” force main from the Deshon Pump Station. ($47,572), Contractor (State Pipe) provided bypass pumping operations. ($10,851). Supplier (L/B Water) provided 16” ductile iron pipe and fittings. ($32,604). The project was conducted under an emergency status.
- Contractor (Snyder Environmental) installed Novaform liner in over 850 feet of sewer main between James Street and Collen Street. ($87,583)
- Consultant (GAI Consultants) designed sewer improvement project for Fairlane Drive. ($7,686)
- Contractor (Nathan Constant Excavating) repaired lateral at 508 W. Pearl Street. ($11,500)
- Contractor (Troy Jay Construction) rebuilt the trickling filter drain walls. ($10,353)
- Contractor (Troy Jay Construction) repaired the sidewalk and concrete steps at the administration building. ($8,492).
- Contractor (J.V. Rigging Inc.) removed the decommissioned CO_2 tank from the treatment plant. ($8,775).
- Contractor (Nathan Constant Excavating) repaired lateral at 541 West Penn Street. ($10,800)
- Contractor (Boulevard Glass) replaced the bullet resistant security glass in the drive-up window ($16,350), and Contractor (FP Weld) repaired the metal frame around drive-up window at the administration building. ($3,809)
- Contractor (Reno Bros. Inc.) installed new hydro heater in the thickener building polymer area. ($3,293).
- Contractor (McCarls Services Inc.) replaced boiler number 3 in the chemical building. ($49,147)
- Contractor (Reno Bros, Inc.) replaced the actuators on boiler numbers 1 and 2 in administration and number 1 in the lab building. ($8,520)
- Contractor (McCarls Services Inc.) replaced boiler number 2 in the chemical building. ($64,081)
- Contractor (Central Heating & Plumbing) provided and installed two exhaust fans in the first-floor administration restrooms. ($2,575)
- Contractor (3 Rivers Concrete Lifting) raised five sections of concrete walkway along the aeration tanks at the treatment plant. ($1,650)
- Contractor (DRS Electrical Services) provided and installed LED to replace site lighting fixtures around the primary tanks. ($5,144)

- Contractor (Central Heating & Plumbing) provided and installed four water bottle fill stations. ($8,300)
- Contractor (Snyder Excavating) mowed brush ten feet away on all the treatment plant perimeter fence. ($4,900)
- Purchased (BissNuss Inc.) replacement parts for primary tank #3 and Authority installed. ($64,576)
- Contractor (Overhead Door Corporation) provided and installed handicap door openers on the customer entrance doors of the administration building. ($7,706)
- Contractor (Troy Jay construction) installed bollards around the domestic water meter and valve vault along Litman Road. ($4,745)
- Contractor (Bauer Excavating) repaired a sewer main and manhole at 106 Volkswood. ($16,793). The project was conducted under an emergency status.
- Purchased (Stanwade Metal Products) a replacement diesel fuel tank for the treatment plant generator, ($6,759), The Authority installed the tank. Contractor (Troy Jay Construction) installed bollards ($2,730), and Contractor (Penn Power Group) installed connections to the generator. ($2,869)
- Purchased (Formed Fiberglass) replacement trough for reactor tank #3 (clarifier), ($10,376) and (Kimball Midwest) stainless steel bolts, nuts and washers ($3,724). The Authority installed the new trough.
- Contractor (Troy Jay Construction) completed the renovations of the new lunchroom in the lab building. ($20,342).
- Contractor (Troy Jay Construction) installed new floor in operators' room of lab building ($4,750).
- Contractor (Troy Jay Construction) installed a mini split one ton air conditioner in lab building. ($4,970).

In addition to the major capital improvements and major maintenance projects completed during the 2022-2023 fiscal year, the Authority also made the following major equipment purchases:

- Purchased rigging with 30' chain from Susquehanna Wire Rope and Rigging. ($5,172)
- Purchased E1- U- Series retrofit grinder pump from TEPCO. ($4,828)
- Purchased 2019 E-Z- GO RXV electric golf cart from Golf Carts Unlimited. ($8,789)
- Purchased a Ranger SP 570 utility vehicle from Snow's Polaris. ($13,371)
- Purchased Rigid EL 325' camera reel from Scotts Electric. ($9,005)

- Purchased 8’ snow plow and mounting for an existing 2014 Ford F250 from Zoresco Equipment Co. ($8,564)
- Purchased and outfitted a 2022 Ford Transit F350 cargo van from Baierl Ford. ($59,191)
- Purchased and equipped a 2023 Ford Ranger XLT from Baierl Ford. ($37,475)
- Purchased a used 2004 U-Kart trailer concrete mixer from Shockey Mini Storage. ($5,000)
- Purchased Rigid camera monitor from Scott Electric. ($4,927)

3. Capital Improvement Construction Contracts in Progress

During 2022-2023, the Authority completed, continued, or initiated work on the following major capital improvement construction contracts to optimize the capacity and improve the reliability of the sewage collection system, pumping station facilities, and the wastewater treatment plant:

1. Rock Lick Pump Station: Contract 2021-03 General Construction was awarded on April 12, 2022, to Utility Contracting in the amount of $252,000. Work began with partial completion for $68,569.
2. Hansen/Whitestown Road Sewer: Hatch nearly completed the design of the sewer lining, sewer replacement and manhole rehabilitation project for $14,853. Project is expected to be bid in fall of 2023.
3. Alameda Park Sewer Upgrade: Hatch continues with the design for the upgrading of the sewer system through Alameda Park. Excessive I&I and proposed future development supported by the Act 537 Plan supports this project. The design is partially complete for $48,779. The project is expected to be bid under the new ownership of PAWC.
4. 2019 Corrective Action Plan (CAP): HRG continues to provide design services for the 2019 CAP. $465,300 in design service was provided by HRG in 2022-2023. The project is on schedule with the DEP approved R2CAP schedule. The project is expected to be bid under the new ownership of PAWC.
5. Sludge Thickener Building Upgrades: Project final payment was made in August 2023 for $47,766. The thickener was back in operation in August 2022.
6. Contractor (State Pipe Services) completed Contract No. 2022-2023CAP Sewer Rehabilitation Project: pursuant to the North Hills Council of Governments (NHCOG) 2022-2023 Unit Price Sanitary Sewer Rehabilitation Contract. Numerous repairs were made throughout the collection system that will help eliminate infiltration and inflow sources at a cost of $287,259.
7. Contractor (Roto- Rooter) Contract 2022-06: Contractor initiated work with anticipated completion this summer at a cost of $52,000.

Consideration has also been given towards planning for future capital improvements and/or major maintenance/replacement projects. Attached at the end of this report is Appendix B, "Anticipated Short-Term Capital Improvement Projects." This listing represents a prioritized ranking of the projects and improvements that should be completed or initiated during the 2023-2024 fiscal year or considered over the next three to five years. As indicated in the "Current Status" column, work has already been initiated on several of these major projects.

A number of other potential major capital improvement projects are also listed as "Long-Term Major Capital Improvement Projects" in Appendix C. The specific nature and scope of these potential improvement projects are not well defined at this time.

4. Appraisal

Industrial Appraisal completed an appraisal of BASA, including buildings, fixed and movable contents, and insurable property, in June of 2023. The appraisal was completed based on an on-site inspection and analysis, and the effective date is deemed to be April 4, 2023. The following is the overall result of the appraisal:

- The cost of reproduction new of the evaluated assets of BASA is $150,751,414
- The sound value (ACV) of the evaluated assets of BASA is $101,118,580

The full details of the appraisal can be found in Appendix G.

5. DEP Chapter 94 Corrective Action Plan to Address Pump Station Overflows

In accordance with the requirements of the Pennsylvania Department of Environmental Protection (DEP) Chapter 94 Regulations, the Authority submitted the 2019 Corrective Action Plan (CAP), dated March 11, 2019, to the DEP to evaluate and address recurring wet weather sanitary sewer overflows (SSOs) associated with the Fisher Heights, Brewster, Brewster Booser (FBB) and Greenwood, Benbrook, Bryson (GBB) Pump Station systems. DEP formally approved the CAP on March 26, 2019, and has since approved two revised CAP plans entitled "RCAP" and "R2CAP" on February 22, 2021, and June 2, 2022, respectively.

To fulfill the CAP requirements, the Authority hired Herbert Rowland & Grubic (HRG) to assist with FBB and GBB design evaluation, sewage facilities planning, design and permitting, and bidding and construction services. Currently, design evaluation (phases 01 & 02) and sewage facilities planning (phase 03) are complete. HRG has FBB 90% design drawings nearly complete (Phase 04); wetland permit applications are being prepared for regulatory agency submission (Phase 05); land acquisition arrangements continue (Phase 06); zoning variance erosion and sediment and stormwater management plans are under way (phase 07). Bidding and Construction for FBB (Phase 8) is anticipated to start in late 2023 and GBB (Phase 9) is scheduled for 2024.

From the design evaluation it was determined that additional hydraulic capacity is required at all of the stations with the exception of Benbrook Pump Station which will be downgraded to an E/One triplex grinder station. To increase the hydraulic capacity at the pump stations, larger pumps, control systems, valve vaults, wet wells, and discharge piping will be installed where it is needed. Additional hydraulic storage capacity will be provided for through the installation of equalization tanks at Fisher, Brewster, and Greenwood Pump Stations. To prevent the accumulation of rags and debris buildup at the pump stations and in the equalization tanks, a Duperon dual auger removal system will be installed at Brewster Pump Station. This project will be bid by PAWC.

As of July 31, 2023, the Authority has successfully complied with the implementation schedule and CAP tasks including the submission of quarterly compliance reports to DEP. A copy of the latest Quarterly Report to DEP is attached at the end of this report in Appendix D.

6. Financial Review

A review of results for the twelve-month period ending July 31, 2023, performed using unaudited, unadjusted fiscal year end numbers on a cash basis, indicates that financial operations will produce an increase in the revenue fund balance of $1,111,073 on a budgetary basis. The budget for fiscal year 2022/2023 was balanced. As shown on Table 7-1, Operating Revenues for the twelve-month period were $12,876,984 or $124,984 more than budgeted. Comparison of the 2022/2023 adopted budget to the projected July 31, 2023 revenue indicate the following:

- Sewer service charges is more than budgeted by $20,677 or approximately 0.18%.
- Industrial waste billing is budgeted more than income by $20,174 or approximately 5.51%.
- Interest and penalties were more than budgeted by $100,465 or approximately 44.28%.
- Sewer tapping fees were more than budgeted by $22,360 or approximately 12.15%.
- Realty transfer inspection fees were less than budgeted by $11,250 or 13.64%.
- Other income was projected to be more than budgeted by $12,531 or 14.05%.

Estimated Operating Expenses for the twelve-month period ending July 31, 2023, were $6,344,277 or $150,307 over budget. A comparison of the adopted budget for this period with projected expenditures indicates the following variances:

- Plant wages were less than budgeted by $131,803 or approximately 15.99%.
- Plant operation and maintenance costs were under budget by $136,108 or 12.95%.
- Pump station and tank wages were $8,819 less than budgeted, or approximately 5.44%.

- Pump station and tank operation and maintenance estimated costs were under budget by $76,976, or 23.84%
- Sewer Wages were projected to be $30,994 more than budgeted, or approximately 4.64%.
- Sewer operation and maintenance estimated costs were less than budgeted by $21,711 or 15.59%.
- Realty transfer inspection wages estimated costs were less than budgeted by $2,783 or 0.78%.
- Realty transfer inspections operation and maintenance costs were $9,190 less than budgeted, or 76.58%.
- Transportation costs were more than budgeted by $5,702 or 8.84%.
- Pretreatment wages were projected to be $332 more than budgeted amount or 0.56%
- Pretreatment expenses were less than budgeted by $1,886 or 21.19%.
- Office wages were projected to be more than budgeted by $10,669 or 3.00%.
- Office expenses were projected to be more than budgeted by $5,633 or 4.20%.
- Administrative wages were projected to be over budget by $3,177 or 1.10%
- Administrative Expenses were projected to be $97,884 less than budgeted, or 41.98%.
- Employment benefits were projected to be $225,542 less than budgeted, or 17.58%.
- Professional Services were projected to be $806,501 more than budgeted, or 352.00%.

Estimated Other Expenses and Transfers for the twelve-month period ending July 31, 2023, were $5,421,634.

7. Budget Considerations

The budget for fiscal year 2023/2024 provides for current costs and expected trends. The budget is shown in detail in Table 5-1 and is summarized below.

Total Operating Revenues	$13,444,160
Total Operating Expenses	6,806,594
Net Operating Revenues	6,637,566
Total Other Expenses & Transfers	6,637,566
Increase (Decrease) in Fund Balance	$ 0

Estimated Operating Revenues for fiscal year 2023/2024 are budgeted to be $567,176 more than the previous year's estimated operating revenues. The following areas are projected to increase:

- Sewer Service Charges are expected to increase by $509,713 in 2023/2024.
- Industrial Waste Billing is expected to increase by $16,574 in 2023/2024.
- Sewer Tapping Fees are expected to increase by $50,170 on 2023/2024.
- Interest and Penalty Income is expected to increase by $3,912 in 2023/2024.

Total Operating Expenses and Other Expenses and Transfers are projected at $6,806,594 and $6,637,566 respectively for the 2023/2024 fiscal year. The past fiscal year's expenses have been adjusted to include normal anticipated increases resulting from continued inflation and any operational changes. In addition:

- Plant wages have been increased by $164,270 compared to the estimated expenditure for last year.
- Plant operations and maintenance have been increased by $215,608 over last year's projected expenditure.
- Pump station and tank wages and operation and maintenance expenses are projected to be more than last year's results by $6,279 and $95,219, respectively.
- The budget for sewer wages is projected to be $41,305 less than last year's results. Sewer operation and maintenance expenses are expected to increase by $36,711.
- Realty transfer inspection wages and operation and maintenance expenses are projected to increase over last year's projected results by $22,513 and $9,190, respectively.
- Transportation costs are expected to increase by $5,798 over last year's projected results.
- Pretreatment wages and expenses are expected to increase by $4,428 and $1,886, respectively.
- Office wages are expected to decrease by $50,899 over last year's projected results.
- Office expenses are expected to increase by $33,981 over last year's projected results.
- Administrative Wages and expenses are expected to be more than last year's results by $23,923 and $97,204, respectively.
- Employment Benefit costs reflect an expected to increase by $175,737 over last year's projected results.
- Professional service fees are expected to be $338,225 less than last year's projected results.

- Capital expenditures are proposed to increase by $1,285,690 over last year's estimate.

Table 2
Butler Area Sewer Authority Comparison of Projected Revenues and Expenses for the Fiscal Year Ended July 31, 2023 with the 2023-2024 Budget Summary ($2.50 per EDU per Month Proposed for the New Budget Year, Increase Effective 10/1/2023)

DESCRIPTIONS	(cash basis) ADOPTED 2022-2023 BUDGET SUMMARY	(Unaudited – Unadjusted – cash basis) ESTIMATED 7/31/23 REVENUES & EXPENSES	(cash basis) ADOPTED 2023-2024 BUDGET SUMMARY
OPERATING REVENUES:			
Sewer Service Charges	$11,791,250	$11,811,927	$12,321,640
Debt Surcharges	3,000	3,024	3,000
Industrial Waste Billing	365,900	345,727	362,300
Interest & Penalty Income	226,900	327,365	331,277
Sewer Tapping Fees	184,100	206,460	256,630
Inspection Fees	6,300	6,800	4,100
Sewer Connection Fees	2,850	2,700	1,050
Realty Transfer Inspection Fees	82,500	71,250	72,000
Other Income	89,200	101,731	92,163
TOTAL OPERATING REVENUE	**12,752,000**	**12,876,984**	**13,444,160**
OPERATING EXPENSES:			
Plant Wages	824,300	692,497	856,767
Plant Operation & Maintenance	1,050,900	914,792	1,130,400
Pump Station & Tank Wages	162,200	153,381	159,660
Pump Station & Tank Operation & Maintenance	322,900	245,924	341,143
Sewer Wages	668,100	699,094	657,789
Sewer Operation & Maintenance	139,300	117,589	154,300
Realty Transfer Inspection Wages	357,600	354,817	377,330
Realty Transfer Inspection Operation & Maintenance	12,000	2,810	12,000
Transportation	64,500	70,202	76,000
Pretreatment Wages	59,000	59,332	63,760
Pretreatment Expenses	8,900	7,014	8,900
Office Wages	355,500	366,169	315,270
Office Expenses	134,000	139,633	173,614
Administrative Wages	289,200	292,377	316,300
Administrative Expenses	233,150	135,266	232,470
Employment Benefits	1,283,300	1,057,758	1,233,495
Professional Services	229,120	1,035,621	697,396
TOTAL OPERATING EXPENSES	**6,193,970**	**6,344,277**	**6,806,594**

DESCRIPTIONS	(cash basis) ADOPTED 2022-2023 BUDGET SUMMARY	(Unaudited – Unadjusted – cash basis) ESTIMATED 7/31/23 REVENUES & EXPENSES	(cash basis) ADOPTED 2023-2024 BUDGET SUMMARY
NET OPERATING REVENUES	**6,558,030**	**6,532,707**	**6,637,566**
OTHER EXPENSES & TRANSFERS:			
Capital Expenditures	1,468,260	1,176,728	2,462,418
Debt Service on Bonds	4,053,570	2,077,490	3,139,032
PENNVEST Principal & Interest	775,100	775,116	775,116
Transfer to Bond Improvement & Redemption Fund	261,100	1,392,300	261,000
TOTAL OTHER EXPENSES & TRANSFERS	**6,558,030**	**5,421,634**	**6,637,566**
INCREASE (DECREASE) IN REVENUE FUND BALANCE	**$ -**	**$ 1,111,073**	**$ -**

8. Insurance

The Authority retains the services of an independent professional firm that appraises the properties of the Authority in order to ascertain sound insurable values. The Authority also retains the services of an independent professional insurance consultant to recommend any additional coverage that should be provided. We concur with this policy of the Authority and recommend that the appraisal is updated annually, and that the insurance coverage is adjusted to meet changing conditions.

Appendix F contains a summary of the current insurance coverage carried by the Authority.

9. Acknowledgements

The following persons served on the Butler Area Sewer Authority Board as of July 31, 2023.

Paul F. Sybert - Chairman
Fred M. Vero - Vice Chairman
Lance R. Calvert - Secretary
Mavrik W. Goepfert - Treasurer
Steven C. Braden - Assistant Secretary/Assistant Treasurer

We wish to thank the staff of the Authority for their cooperation and assistance in the preparation of this annual report and budget.

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Appendix A
Discharge Limitations

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER

AUTHORIZATION TO DISCHARGE UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM DISCHARGE REQUIREMENTS FOR PUBLICLY OWNED TREATMENT WORKS (POTWs)

NPDES PERMIT NO: PA0026697

In compliance with the provisions of the Clean Water Act, 33 U.S.C. Section 1251 *et seq.* ("the Act") and Pennsylvania's Clean Streams Law, as amended, 35 P.S. Section 691.1 *et seq.*,

Butler Area Sewer Authority
100 Litman Road
Butler, PA 16001-3256

is authorized to discharge from a facility known as **Butler Area STP**, located in **Butler Township, Butler County**, to **Connoquenessing Creek (Outfall 001) and Butcher Run (Outfalls 005, 011-014 & 018)** in Watershed **20-C** in accordance in accordance with effluent limitations, monitoring requirements and other conditions set forth in Parts A, B and C hereof.

THIS PERMIT SHALL BECOME EFFECTIVE ON SEP 01 2018

THIS PERMIT SHALL EXPIRE AT MIDNIGHT ON AUG 31 2023

The authority granted by this permit is subject to the following further qualifications:

1. If there is a conflict between the application, its supporting documents and/or amendments and the terms and conditions of this permit, the terms and conditions shall apply.

2. Failure to comply with the terms, conditions or effluent limitations of this permit is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. (40 CFR 122.41(a))

3. A complete application for renewal of this permit, or notice of intent to cease discharging by the expiration date, must be submitted to DEP at least 180 days prior to the above expiration date (unless permission has been granted by DEP for submission at a later date), using the appropriate NPDES permit application form. (40 CFR 122.41(b), 122.21(d))

   In the event that a timely and complete application for renewal has been submitted and DEP is unable, through no fault of the permittee, to reissue the permit before the above expiration date, the terms and conditions of this permit, including submission of the Discharge Monitoring Reports (DMRs), will be automatically continued and will remain fully effective and enforceable against the discharger until DEP takes final action on the pending permit application. (25 Pa. Code §§ 92a.7(b), (c))

4. This NPDES permit does not constitute authorization to construct or make modifications to wastewater treatment facilities necessary to meet the terms and conditions of this permit.

DATE PERMIT ISSUED AUG 09 2018 **ISSUED BY**

John A. Holden, P.E.
Clean Water Program Manager
Northwest Regional Office

PART A - EFFLUENT LIMITATIONS, MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS

I. A. For Outfall 001 , **Latitude** 40° 50' 21" , **Longitude** 79° 55' 13" , **River Mile Index** 43.73 , **Stream Code** 34025

Type of Effluent: Treated domestic sewage

1. The permittee is authorized to discharge during the period from **March 1, 2019** through **Permit Expiration Date**.

2. Based on the anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply (see also Additional Requirements and Footnotes).

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Total Nitrogen	XXX	XXX	XXX	Report	XXX	XXX	1/month	24-Hr Composite

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: Outfall 001 – after disinfection

PART A - EFFLUENT LIMITATIONS, MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS

I. B. For Outfall 001 , **Latitude** 40° 50' 21" , **Longitude** 79° 55' 13" , **River Mile Index** 43.73 , **Stream Code** 34025

Type of Effluent: Treated domestic sewage

1. The permittee is authorized to discharge during the period from **Permit Effective Date** through **Permit Expiration Date**.

2. Based on the anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply (see also Additional Requirements and Footnotes).

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Weekly Average	Minimum	Average Monthly	Weekly Average	Instant. Maximum		
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	Continuous	Measured
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/day	Grab
Dissolved Oxygen	XXX	XXX	5.0 Inst Min	XXX	XXX	XXX	1/day	Grab
Total Residual Chlorine (TRC)*	XXX	XXX	XXX	0.33	XXX	1.1	1/day	Grab
Carbonaceous Biochemical Oxygen Demand (CBOD5) Nov 1 - Apr 30	2001	3002	XXX	24	36	48	1/day	24-Hr Composite
Carbonaceous Biochemical Oxygen Demand (CBOD5) May 1 - Oct 31	1001	1501	XXX	12	18	24	1/day	24-Hr Composite
Biochemical Oxygen Demand (BOD5) Raw Sewage Influent	Report	XXX	XXX	Report	XXX	XXX	1/day	24-Hr Composite
Total Suspended Solids Raw Sewage Influent	Report	XXX	XXX	Report	XXX	XXX	1/day	24-Hr Composite
Total Suspended Solids	2502	3753	XXX	30	45	60	1/day	24-Hr Composite
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	1/day	Grab

Outfall 001 , Continued (from Permit Effective Date through Permit Expiration Date)

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Weekly Average	Minimum	Average Monthly	Weekly Average	Instant. Maximum		
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	1/day	Grab
Ammonia-Nitrogen Nov 1 - Apr 30	459	XXX	XXX	5.5	XXX	11	1/day	24-Hr Composite
Ammonia-Nitrogen May 1 - Oct 31	167	XXX	XXX	2	XXX	4	1/day	24-Hr Composite
Total Phosphorus	167	XXX	XXX	2	XXX	4	1/day	24-Hr Composite

* Refer to Special Condition V - Requirements for Total Residual Chlorine

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: Outfall 001 – after disinfection, except for influent sampling.

PART A - EFFLUENT LIMITATIONS, MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS

I. C. For Outfall 005 , **Latitude** 40° 50' 29" , **Longitude** 79° 55' 06" , **River Mile Index** 0.1 , **Stream Code** 35116

Type of Effluent: Treated domestic sewage

1. The permittee is authorized to discharge during the period from **Permit Effective Date** through **Permit Expiration Date**.

2. Based on the anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply (see also Additional Requirements and Footnotes).

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Weekly Average	Minimum	Average Monthly	Weekly Average	Instant. Maximum		

This outfall is for emergency use only. Any discharge from this outfall shall met the same effluent limitations and monitoring requirements imposed on Outfall 001.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: Outfall 001 monitoring point.

PART A - EFFLUENT LIMITATIONS, MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS (Continued)

Additional Requirements

1. The permittee may not discharge:

   a. Floating solids, scum, sheen or substances that result in observed deposits in the receiving water. (25 Pa Code § 92a.41(c))

   b. Oil and grease in amounts that cause a film or sheen upon or discoloration of the waters of this Commonwealth or adjoining shoreline, or that exceed 15 mg/l as a daily average or 30 mg/l at any time (or lesser amounts if specified in this permit). (25 Pa. Code § 92a.47(a)(7), § 95.2(2))

   c. Substances in concentration or amounts sufficient to be inimical or harmful to the water uses to be protected or to human, animal, plant or aquatic life. (25 Pa Code § 93.6(a))

   d. Foam or substances that produce an observed change in the color, taste, odor or turbidity of the receiving water, unless those conditions are otherwise controlled through effluent limitations or other requirements in this permit. For the purpose of determining compliance with this condition, DEP will compare conditions in the receiving water upstream of the discharge to conditions in the receiving water approximately 100 feet downstream of the discharge to determine if there is an observable change in the receiving water. (25 Pa Code § 92a.41(c))

2. The monthly average percent removal of BOD_5 or $CBOD_5$ and TSS must be at least 85% for POTW facilities on a concentration basis except where 25 Pa. Code 92a.47(g) and (h) are applicable to facilities with combined sewer overflows (CSOs) or as otherwise specified in this permit. (25 Pa. Code § 92a.47(a)(3))

3. If the permit requires the reporting of average weekly statistical results, the maximum weekly average concentration and maximum weekly average mass loading shall be reported, regardless of whether the results are obtained for the same or different weeks.

4. The permittee shall monitor the sewage effluent discharge(s) for the effluent parameters identified in the Part A limitations table(s) during all bypass events at the facility, using the sample types that are specified in the limitations table(s). Where the required sample type is "composite", the permittee must commence sample collection within one hour of the start of the bypass, wherever possible. The results shall be reported on the Daily Effluent Monitoring supplemental form (3800-FM-BCW0435) and be incorporated into the calculations used to report self-monitoring data on Discharge Monitoring Reports (DMRs).

Footnotes

(1) When sampling to determine compliance with mass effluent limitations, the discharge flow at the time of sampling must be measured and recorded.

(2) This is the minimum number of sampling events required. Permittees are encouraged, and it may be advantageous in demonstrating compliance, to perform more than the minimum number of sampling events.

Supplemental Information

(1) The hydraulic design capacity of million gallons per day for the treatment facility is used to prepare the annual Municipal Wasteload Management Report to help determine whether a "hydraulic overload" situation exists, as defined in Title 25 Pa. Code Chapter 94.

(2) The effluent limitations for Outfalls 001 were determined using effluent discharge rates of 10 MGD.

(3) The organic design capacity of 12750 lbs BOD_5 per day for the treatment facility is used to prepare the annual Municipal Wasteload Management Report to determine whether an "organic overload" condition exists, as defined in 25 Pa. Code Chapter 94.

(4) Total Nitrogen is the sum of Total Kjeldahl-N (TKN) plus Nitrite-Nitrate as N (NO_2+NO_3-N), where TKN and NO_2+NO_3-N are measured in the same sample.

II. DEFINITIONS

At Outfall (XXX) means a sampling location in outfall line XXX below the last point at which wastes are added to outfall line (XXX), or where otherwise specified.

Average refers to the use of an arithmetic mean, unless otherwise specified in this permit. (40 CFR 122.41(l)(4)(iii))

Best Management Practices (BMPs) means schedules of activities, prohibitions of practices, maintenance procedures and other management practices to prevent or reduce the pollutant loading to surface waters of the Commonwealth. The term also includes treatment requirements, operating procedures and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. The term includes activities, facilities, measures, planning or procedures used to minimize accelerated erosion and sedimentation and manage stormwater to protect, maintain, reclaim, and restore the quality of waters and the existing and designated uses of waters within this Commonwealth before, during and after earth disturbance activities. (25 Pa. Code § 92a.2)

Bypass means the intentional diversion of waste streams from any portion of a treatment facility. (40 CFR 122.41(m)(1)(i))

Calendar Week is defined as the seven consecutive days from Sunday through Saturday, unless the permittee has been given permission by DEP to provide weekly data as Monday through Friday based on showing excellent performance of the facility and a history of compliance. In cases when the week falls in two separate months, the month with the most days in that week shall be the month for reporting.

Clean Water Act means the Federal Water Pollution Control Act, as amended (33 U.S.C.A. §§ 1251 to 1387).

Composite Sample (for all except GC/MS volatile organic analysis) means a combination of individual samples (at least eight for a 24-hour period or four for an 8-hour period) of at least 100 milliliters (mL) each obtained at spaced time intervals during the compositing period. The composite must be flow-proportional; either the volume of each individual sample is proportional to discharge flow rates, or the sampling interval is proportional to the flow rates over the time period used to produce the composite. (EPA Form 2C)

Composite Sample (for GC/MS volatile organic analysis) consists of at least four aliquots or grab samples collected during the sampling event (not necessarily flow proportioned). The samples must be combined in the laboratory immediately before analysis and then one analysis is performed. (EPA Form 2C)

Daily Average Temperature means the average of all temperature measurements made, or the mean value plot of the record of a continuous automated temperature recording instrument, either during a calendar day or during the operating day if flows are of a shorter duration.

Daily Discharge means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the "daily discharge" is calculated as the average measurement of the pollutant over the day. (25 Pa. Code § 92a.2, 40 CFR 122.2)

Daily Maximum Discharge Limitation means the highest allowable "daily discharge."

Discharge Monitoring Report (DMR) means the DEP or EPA supplied form(s) for the reporting of self-monitoring results by the permittee. (25 Pa. Code § 92a.2, 40 CFR 122.2)

Estimated Flow means any method of liquid volume measurement based on a technical evaluation of the sources contributing to the discharge including, but not limited to, pump capabilities, water meters and batch discharge volumes.

Geometric Mean means the average of a set of n sample results given by the n^{th} root of their product.

Grab Sample means an individual sample of at least 100 mL collected at a randomly selected time over a period not to exceed 15 minutes. (EPA Form 2C)

Hauled-In Wastes means any waste that is introduced into a treatment facility through any method other than a direct connection to the sewage collection system. The term includes wastes transported to and disposed of within the treatment facility or other entry points within the collection system.

Hazardous Substance means any substance designated under 40 CFR Part 116 pursuant to Section 311 of the Clean Water Act. (40 CFR 122.2)

Immersion Stabilization (i-s) means a calibrated device is immersed in the wastewater until the reading is stabilized.

Indirect Discharger means a non-domestic discharger introducing pollutants to a Publicly Owned Treatment Works (POTW) or other treatment works. (25 Pa. Code § 92a.2, 40 CFR 122.2)

Industrial User means a source of Indirect Discharge. (40 CFR 403.3)

Instantaneous Maximum Effluent Limitation means the highest allowable discharge of a concentration or mass of a substance at any one time as measured by a grab sample. (25 Pa. Code § 92a.2)

Measured Flow means any method of liquid volume measurement, the accuracy of which has been previously demonstrated in engineering practice, or for which a relationship to absolute volume has been obtained.

Monthly Average Discharge Limitation means the highest allowable average of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month. (25 Pa. Code § 92a.2)

Municipality means a city, town, borough, county, township, school district, institution, authority or other public body created by or pursuant to State law and having jurisdiction over disposal of sewage, industrial wastes, or other wastes. (25 Pa. Code § 92a.2)

Municipal Waste means garbage, refuse, industrial lunchroom or office waste and other material, including solid, liquid, semisolid or contained gaseous material resulting from operation of residential, municipal, commercial or institutional establishments and from community activities; and sludge not meeting the definition of residual or hazardous waste under this section from a municipal, commercial or institutional water supply treatment plant, waste water treatment plant or air pollution control facility. (25 Pa. Code § 271.1)

Publicly Owned Treatment Works (POTW) means a treatment works as defined by §212 of the Clean Water Act, owned by a state or municipality. The term includes any devices and systems used in the storage, treatment, recycling and reclamation of municipal sewage or industrial wastes of a liquid nature. The term also includes sewers, pipes or other conveyances if they convey wastewater to a POTW providing treatment. The term also means the municipality as defined in section 502(4) of the Clean Water Act, which has jurisdiction over the indirect discharges to and the discharges from such a treatment works. (25 Pa Code § 92a.2, 40 CFR 122.2)

Residual Waste means garbage, refuse, other discarded material or other waste, including solid, liquid, semisolid or contained gaseous materials resulting from industrial, mining and agricultural operations and sludge from an industrial, mining or agricultural water supply treatment facility, wastewater treatment facility or air pollution control facility, if it is not hazardous. The term does not include coal refuse as defined in the Coal Refuse Disposal Control Act. The term does not include treatment sludges from coal mine drainage treatment plants, disposal of which is being carried on under and in compliance with a valid permit issued under the Clean Streams Law. (25 Pa Code § 287.1)

Severe Property Damage means substantial physical damage to property, damage to the treatment facilities that causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production. (40 CFR 122.41(m)(1)(ii))

Stormwater means the runoff from precipitation, snow melt runoff, and surface runoff and drainage. (25 Pa. Code § 92a.2)

Stormwater Associated With Industrial Activity means the discharge from any conveyance that is used for collecting and conveying stormwater and that is directly related to manufacturing, processing or raw materials storage areas at an industrial plant, and as defined at 40 CFR §122.26(b)(14)(i) – (ix) and (xi) and 25 Pa. Code § 92a.2.

Toxic Pollutant means those pollutants, or combinations of pollutants, including disease-causing agents, which after discharge and upon exposure, ingestion, inhalation or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains may, on the basis of information available to DEP cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions, including malfunctions in reproduction, or physical deformations in these organisms or their offspring. (25 Pa. Code § 92a.2)

Weekly Average Discharge Limitation means the highest allowable average of "daily discharges" over a calendar week, calculated as the sum of all "daily discharges" measured during a calendar week divided by the number of "daily discharges" measured during that week.

III. SELF-MONITORING, REPORTING AND RECORDKEEPING

A. Representative Sampling

1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity (40 CFR 122.41(j)(1)). Representative sampling includes the collection of samples, where possible, during periods of adverse weather, changes in treatment plant performance and changes in treatment plant loading. If possible, effluent samples must be collected where the effluent is well mixed near the center of the discharge conveyance and at the approximate mid-depth point, where the turbulence is at a maximum and the settlement of solids is minimized. (40 CFR 122.48, 25 Pa. Code § 92a.61)

2. Records Retention (40 CFR 122.41(j)(2))

   Except for records of monitoring information required by this permit related to the permittee's sludge use and disposal activities which shall be retained for a period of at least 5 years, all records of monitoring activities and results (including all original strip chart recordings for continuous monitoring instrumentation and calibration and maintenance records), copies of all reports required by this permit, and records of all data used to complete the application for this permit shall be retained by the permittee for 3 years from the date of the sample measurement, report or application, unless a longer retention period is required by the permit. The 3-year period shall be extended as requested by DEP or the EPA Regional Administrator.

3. Recording of Results (40 CFR 122.41(j)(3))

   For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

   a. The exact place, date and time of sampling or measurements.
   b. The person(s) who performed the sampling or measurements.
   c. The date(s) the analyses were performed.
   d. The person(s) who performed the analyses.
   e. The analytical techniques or methods used; and the associated detection level.
   f. The results of such analyses.

4. Test Procedures

   a. Facilities that test or analyze environmental samples used to demonstrate compliance with this permit shall be in compliance with laboratory accreditation requirements of Act 90 of 2002 (27 Pa. C.S. §§ 4101-4113) and 25 Pa. Code Chapter 252, relating to environmental laboratory accreditation.

   b. Test procedures (methods) for the analysis of pollutants or pollutant parameters shall be those approved under 40 CFR Part 136 or required under 40 CFR Chapter I, Subchapters N or O, unless the method is specified in this permit or has been otherwise approved in writing by DEP. (40 CFR 122.41(j)(4), 122.44(i)(1)(iv))

   c. Test procedures (methods) for the analysis of pollutants or pollutant parameters shall be sufficiently sensitive. A method is sufficiently sensitive when 1) the method minimum level is at or below the level of the effluent limit established in the permit for the measured pollutant or pollutant parameter; or 2) the method has the lowest minimum level of the analytical methods approved under 40 CFR Part 136 or required under 40 CFR Chapter I, Subchapters N or O, for the measured pollutant or pollutant parameter; or 3) the method is specified in this permit or has been otherwise approved in writing by DEP for the measured pollutant or pollutant parameter. Permittees have the option of providing matrix or sample-specific minimum levels rather than the published levels. (40 CFR 122.44(i)(1)(iv))

5. Quality/Assurance/Control

   In an effort to assure accurate self-monitoring analyses results:

   a. The permittee, or its designated laboratory, shall participate in the periodic scheduled quality assurance inspections conducted by DEP and EPA. (40 CFR 122.41(e), 122.41(i)(3))

   b. The permittee, or its designated laboratory, shall develop and implement a program to assure the quality and accurateness of the analyses performed to satisfy the requirements of this permit, in accordance with 40 CFR Part 136. (40 CFR 122.41(j)(4))

B. Reporting of Monitoring Results

1. The permittee shall effectively monitor the operation and efficiency of all wastewater treatment and control facilities, and the quantity and quality of the discharge(s) as specified in this permit. (25 Pa. Code §§ 92a.3(c), 92a.41(a), 92a.44, 92a.61(i) and 40 CFR §§ 122.41(e), 122.44(i)(1))

2. The permittee shall use DEP's electronic Discharge Monitoring Report (eDMR) system to report the results of compliance monitoring under this permit (see www.dep.pa.gov/edmr). Permittees that are not using the eDMR system as of the effective date of this permit shall submit the necessary registration and trading partner agreement forms to DEP's Bureau of Clean Water (BCW) within 30 days of the effective date of this permit and begin using the eDMR system when notified by DEP BCW to do so. (25 Pa. Code §§ 92a.3(c), 92a.41(a), 92a.61(g) and 40 CFR § 122.41(l)(4))

3. Submission of a physical (paper) copy of a Discharge Monitoring Report (DMR) is acceptable under the following circumstances:

   a. For a permittee that is not yet using the eDMR system, the permittee shall submit a physical copy of a DMR to the DEP regional office that issued the permit during the interim period between the submission of registration and trading partner agreement forms to DEP and DEP's notification to begin using the eDMR system.

   b. For any permittee, as a contingency a physical DMR may be mailed to the DEP regional office that issued the permit if there are technological malfunction(s) that prevent the successful submission of a DMR through the eDMR system. In such situations, the permittee shall submit the DMR through the eDMR system within 5 days following remedy of the malfunction(s).

4. DMRs must be completed in accordance with DEP's published DMR instructions (3800-FM-BCW0463). DMRs must be received by DEP no later than 28 days following the end of the monitoring period. DMRs are based on calendar reporting periods and must be received by DEP in accordance with the following schedule:

   - Monthly DMRs must be received within 28 days following the end of each calendar month.
   - Quarterly DMRs must be received within 28 days following the end of each calendar quarter, i.e., January 28, April 28, July 28, and October 28.
   - Semiannual DMRs must be received within 28 days following the end of each calendar semiannual period, i.e., January 28 and July 28.
   - Annual DMRs must be received by January 28, unless Part C of this permit requires otherwise.

5. The permittee shall complete all Supplemental Reporting forms (Supplemental DMRs) attached to this permit, or an approved equivalent, and submit the signed, completed forms as attachments to the DMR, through DEP's eDMR system. DEP's Supplemental Laboratory Accreditation Form (3800-FM-BCW0189) must be completed and submitted to DEP with the first DMR following issuance of this permit, and anytime thereafter when changes to laboratories or methods occur. (25 Pa. Code §§ 92a.3(c), 92a.41(a), 92a.61(g) and 40 CFR § 122.41(l)(4))

6. The completed DMR Form shall be signed and certified by either of the following applicable persons, as defined in 25 Pa. Code § 92a.22:

- For a corporation - by a principal executive officer of at least the level of vice president, or an authorized representative, if the representative is responsible for the overall operation of the facility from which the discharge described in the NPDES form originates.
- For a partnership or sole proprietorship - by a general partner or the proprietor, respectively.
- For a municipality, state, federal or other public agency - by a principal executive officer or ranking elected official.

If signed by a person other than the above and for co-permittees, written notification of delegation of DMR signatory authority must be submitted to DEP in advance of or along with the relevant DMR form. (40 CFR § 122.22(b))

7. If the permittee monitors any pollutant at monitoring points as designated by this permit, using analytical methods described in Part A III.A.4. herein, more frequently than the permit requires, the results of this monitoring shall be incorporated, as appropriate, into the calculations used to report self-monitoring data on the DMR. (40 CFR 122.41(l)(4)(ii))

C. Reporting and Notification Requirements

1. Planned Changes to Physical Facilities – The permittee shall give notice to DEP as soon as possible but no later than 30 days prior to planned physical alterations or additions to the permitted facility. A permit under 25 Pa. Code Chapter 91 may be required for these situations prior to implementing the planned changes. A permit application, or other written submission to DEP, can be used to satisfy the notification requirements of this section.

   Notice is required when:

   a. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b). (40 CFR 122.41(l)(1)(i))

   b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are not subject to effluent limitations in this permit. (40 CFR 122.41(l)(1)(ii))

   c. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan. (40 CFR 122.41(l)(1)(iii))

   d. The planned change may result in noncompliance with permit requirements. (40 CFR 122.41(l)(2))

2. Planned Changes to Waste Stream – Under the authority of 25 Pa. Code § 92a.24(a) and 40 CFR 122.42(b), the permittee shall provide notice to DEP and EPA as soon as possible but no later than 45 days prior to any planned changes in the volume or pollutant concentration of its influent waste stream as a result of indirect discharges or hauled-in wastes, as specified in paragraphs 2.a. and 2.b., below. Notice shall be provided on the "Planned Changes to Waste Stream" Supplemental Report (3800-FM-BCW0482), available on DEP's website. The permittee shall provide information on the quality and quantity of waste introduced into the POTW, and any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW (40 CFR 122.42(b)(3)). The Report shall be sent via Certified Mail or other means to confirm DEP's receipt of the notification. DEP will determine if the submission of a new application and receipt of a new or amended permit is required.

   a. Introduction of New Pollutants (25 Pa. Code § 92a.24(a), 40 CFR 122.42(b)(1))

      New pollutants are defined as parameters that meet one or more of the following criteria:

(i) Any pollutants that were not detected in the facilities' influent waste stream as reported in the permit application; and have not been approved to be included in the permittee's influent waste stream by DEP in writing.

(ii) Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to Sections 301 or 306 of the Clean Water Act if it were directly discharging those pollutants (40 CFR 122.42(b)(1)).

The permittee shall provide notification of the introduction of new pollutants in accordance with paragraph 2 above. The permittee may not authorize the introduction of new pollutants until the permittee receives DEP's written approval.

b. Increased Loading of Approved Pollutants (25 Pa. Code § 92a.24(a), 40 CFR 122.42(b)(2))

Approved pollutants are defined as parameters that meet one or more of the following criteria:

(i) Were detected in the facilities' influent waste stream as reported in the permittee's permit application; or have been previously approved to be included in the permittee's influent waste stream by DEP in writing.

(ii) Have an effluent limitation or monitoring requirement in this permit.

The permittee shall provide notification of the introduction of increased influent loading (lbs/day) of approved pollutants in accordance with paragraph 2 above when (1) the cumulative increase in influent loading (lbs/day) exceeds 20% of the maximum loading reported in the permit application, or a loading previously approved by DEP and/or EPA, or (2) may cause an exceedance in the effluent of Effluent Limitation Guidelines (ELGs) or limitations in Part A of this permit, or (3) may cause interference or pass through at the POTW, or (4) may cause exceedances of the applicable water quality standards in the receiving stream. Unless specified otherwise in this permit, if DEP does not respond to the notification within 30 days of its receipt, the permittee may proceed with the increase in loading. The acceptance of increased loading of approved pollutants may not result in an exceedance of ELGs or effluent limitations, may not result in a hydraulic or organic overload condition as defined in 25 Pa. Code § 94.1, and may not cause exceedances of the applicable water quality standards in the receiving stream.

3. Reporting Requirements for Hauled-In Wastes

a. Receipt of Residual Waste

(i) The permittee shall document the receipt of all hauled-in residual wastes (including but not limited to wastewater from oil and gas wells, food processing waste, and landfill leachate), as defined at 25 Pa. Code § 287.1, that are received for processing at the treatment facility. The permittee shall report hauled-in residual wastes on a monthly basis to DEP on the "Hauled In Residual Wastes" Supplemental Report (3800-FM-BCW0450) as an attachment to the DMR. If no residual wastes were received during a month, submission of the Supplemental Report is not required.

The following information is required by the Supplemental Report. The information used to develop the Report shall be retained by the permittee for five years from the date of receipt and must be made available to DEP or EPA upon request.

(1) The dates that residual wastes were received.

(2) The volume (gallons) of wastes received.

(3) The license plate number of the vehicle transporting the waste to the treatment facility.

(4) The permit number(s) of the well(s) where residual wastes were generated, if applicable.

(5) The name and address of the generator of the residual wastes.

(6) The type of wastewater.

The transporter of residual waste must maintain these and other records as part of the daily operational record (25 Pa. Code § 299.219). If the transporter is unable to provide this information or the permittee has not otherwise received the information from the generator, the residual wastes shall not be accepted by the permittee until such time as the permittee receives such information from the transporter or generator.

(ii) The following conditions apply to the characterization of residual wastes received by the permittee:

(1) If the generator is required to complete a chemical analysis of residual wastes in accordance with 25 Pa. Code § 287.51, the permittee must receive and maintain on file a chemical analysis of the residual wastes it receives. The chemical analysis must conform to the Bureau of Waste Management's Form 26R except as noted in paragraph (2), below. Each load of residual waste received must be covered by a chemical analysis if the generator is required to complete it.

(2) For wastewater generated from hydraulic fracturing operations ("frac wastewater") within the first 30 production days of a well site, the chemical analysis may be a general frac wastewater characterization approved by DEP. Thereafter, the chemical analysis must be waste-specific and be reported on the Form 26R.

b. Receipt of Municipal Waste

(i) The permittee shall document the receipt of all hauled-in municipal wastes (including but not limited to septage and liquid sewage sludge), as defined at 25 Pa. Code § 271.1, that are received for processing at the treatment facility. The permittee shall report hauled-in municipal wastes on a monthly basis to DEP on the "Hauled In Municipal Wastes" Supplemental Report (3800-FM-BCW0437) as an attachment to the DMR. If no municipal wastes were received during a month, submission of the Supplemental Report is not required.

The following information is required by the Supplemental Report:

(1) The dates that municipal wastes were received.

(2) The volume (gallons) of wastes received.

(3) The BOD_5 concentration (mg/l) and load (lbs) for the wastes received.

(4) The location(s) where wastes were disposed of within the treatment facility.

(ii) Sampling and analysis of hauled-in municipal wastes must be completed to characterize the organic strength of the wastes, unless composite sampling of influent wastewater is performed at a location downstream of the point of entry for the wastes. The influent BOD_5 characterization for the treatment facility, as reported in the annual Municipal Wasteload Management Report per 25 Pa. Code Chapter 94, must be representative of the hauled-in municipal wastes received.

4. Unanticipated Noncompliance or Potential Pollution Reporting

   a. Immediate Reporting - The permittee shall immediately report any incident causing or threatening pollution in accordance with the requirements of 25 Pa. Code §§ 91.33 and 92a.41(b).

      (i) If, because of an accident, other activity or incident a toxic substance or another substance which would endanger users downstream from the discharge, or would otherwise result in pollution or create a danger of pollution or would damage property, the permittee shall immediately notify DEP by telephone of the location and nature of the danger. Oral notification to the Department is required as soon as possible, but no later than 4 hours after the permittee becomes aware of the incident causing or threatening pollution.

      (ii) If reasonably possible to do so, the permittee shall immediately notify downstream users of the waters of the Commonwealth to which the substance was discharged. Such notice shall include the location and nature of the danger.

      (iii) The permittee shall immediately take or cause to be taken steps necessary to prevent injury to property and downstream users of the waters from pollution or a danger of pollution and, in addition, within 15 days from the incident, shall remove the residual substances contained thereon or therein from the ground and from the affected waters of this Commonwealth to the extent required by applicable law.

   b. The permittee shall report any noncompliance which may endanger health or the environment in accordance with the requirements of 40 CFR 122.41(l)(6). These requirements include the following obligations:

      (i) 24 Hour Reporting - The permittee shall orally report any noncompliance with this permit which may endanger health or the environment within 24 hours from the time the permittee becomes aware of the circumstances. The following shall be included as information which must be reported within 24 hours under this paragraph (40 CFR 122.41(l)(6)(ii)):

         (1) Any unanticipated bypass which exceeds any effluent limitation in the permit;

         (2) Any upset which exceeds any effluent limitation in the permit; and

         (3) Violation of the maximum daily discharge limitation for any of the pollutants listed in the permit as being subject to the 24-hour reporting requirement.

      (ii) Written Report - A written submission shall also be provided within 5 days of the time the permittee becomes aware of any noncompliance which may endanger health or the environment. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

      (iii) Waiver of Written Report - DEP may waive the written report on a case-by-case basis if the associated oral report has been received within 24 hours from the time the permittee becomes aware of the circumstances which may endanger health or the environment. Unless such a waiver is expressly granted by DEP, the permittee shall submit a written report in accordance with this paragraph. (40 CFR 122.41(l)(6)(iii))

5. Other Noncompliance

   The permittee shall report all instances of noncompliance not reported under paragraph C.4 of this section or specific requirements of compliance schedules, at the time DMRs are submitted, on the Non-Compliance Reporting Form (3800-FM-BCW0440). The reports shall contain the information listed in paragraph C.4.b.(ii) of this section. (40 CFR 122.41(l)(7))

PART B

I. MANAGEMENT REQUIREMENTS

A. Compliance

1. The permittee shall comply with all conditions of this permit. If a compliance schedule has been established in this permit, the permittee shall achieve compliance with the terms and conditions of this permit within the time frames specified in this permit. (40 CFR 122.41(a)(1))

2. The permittee shall submit reports of compliance or noncompliance, or progress reports as applicable, for any interim and final requirements contained in this permit. Such reports shall be submitted no later than 14 days following the applicable schedule date or compliance deadline. (25 Pa. Code § 92a.51(c), 40 CFR 122.47(a)(4))

B. Permit Modification, Termination, or Revocation and Reissuance

1. This permit may be modified, terminated, or revoked and reissued during its term in accordance with 25 Pa. Code § 92a.72 and 40 CFR 122.41(f).

2. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition. (40 CFR 122.41(f))

3. In the absence of DEP action to modify or revoke and reissue this permit, the permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time specified in the regulations that establish those standards or prohibitions. (40 CFR 122.41(a)(1))

C. Duty to Provide Information

1. The permittee shall furnish to DEP, within a reasonable time, any information which DEP may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. (40 CFR 122.41(h))

2. The permittee shall furnish to DEP, upon request, copies of records required to be kept by this permit. (40 CFR 122.41(h))

3. Other Information - Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to DEP, it shall promptly submit the correct and complete facts or information. (40 CFR 122.41(l)(8))

4. The permittee shall provide the following information in the annual Municipal Wasteload Management Report, required under the provisions of Title 25 Pa. Code Chapter 94:

   a. The requirements identified in 25 Pa. Code § 94.12.

   b. The identity of any indirect discharger(s) served by the POTW which are subject to pretreatment standards adopted under Section 307(b) of the Clean Water Act; the POTW shall also specify the total volume of discharge and estimated concentration of each pollutant discharged into the POTW by the indirect discharger.

   c. A "Solids Management Inventory" if specified in Part C of this permit.

   d. The total volume of hauled-in residual and municipal wastes received during the year, by source.

   e. The Annual Report requirements for permittees required to implement an industrial pretreatment program listed in Part C, as applicable.

D. General Pretreatment Requirements

1. Any POTW (or combination of POTWs operated by the same authority) with a total design flow greater than 5 million gallons per day (MGD) and receiving from industrial users pollutants which pass through or interfere with the operation of the POTW or are otherwise subject to Pretreatment Standards will be required to establish a POTW Pretreatment Program unless specifically exempted by the Approval Authority. A POTW with a design flow of 5 MGD or less may be required to develop a POTW Pretreatment Program if the Approval Authority finds that the nature or volume of the industrial influent, treatment process upsets, violations of effluent limitations, contamination of sludge, or other circumstances warrant in order to prevent interference or pass through. (40 CFR 403.8)

2. Each POTW with an approved Pretreatment Program pursuant to 40 CFR 403.8 shall develop and enforce specific limits to implement the prohibitions listed in 40 CFR 403.5(a)(1) and (b), and shall continue to develop these limits as necessary and effectively enforce such limits. This condition applies, for example, when there are planned changes to the waste stream as identified in Part A III.C.2. If the permittee is required to develop or continue implementation of a Pretreatment Program, detailed requirements will be contained in Part C of this permit.

3. For all POTWs, where pollutants contributed by indirect dischargers result in interference or pass through, and a violation is likely to recur, the permittee shall develop and enforce specific limits for indirect dischargers and other users, as appropriate, that together with appropriate facility or operational changes, are necessary to ensure renewed or continued compliance with this permit or sludge use or disposal practices. Where POTWs do not have an approved Pretreatment Program, the permittee shall submit a copy of such limits to DEP when developed. (25 Pa. Code § 92a.47(d))

E. Proper Operation and Maintenance

1. The permittee shall employ operators certified in compliance with the Water and Wastewater Systems Operators Certification Act (63 P.S. §§ 1001-1015.1).

2. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance includes, but is not limited to, adequate laboratory controls including appropriate quality assurance procedures. This provision also includes the operation of backup or auxiliary facilities or similar systems that are installed by the permittee, only when necessary to achieve compliance with the terms and conditions of this permit. (40 CFR 122.41(e))

F. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge, sludge use or disposal in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment. (40 CFR 122.41(d))

G. Bypassing

1. Bypassing Not Exceeding Permit Limitations - The permittee may allow a bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions in paragraphs two, three and four of this section. (40 CFR 122.41(m)(2))

2. Other Bypassing - In all other situations, bypassing is prohibited and DEP may take enforcement action against the permittee for bypass unless:

a. A bypass is unavoidable to prevent loss of life, personal injury or "severe property damage." (40 CFR 122.41(m)(4)(i)(A))

b. There are no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance. (40 CFR 122.41(m)(4)(i)(B))

c. The permittee submitted the necessary notice required in paragraph G.4 below. (40 CFR 122.41(m)(4)(i)(C))

3. DEP may approve an anticipated bypass, after considering its adverse effects, if DEP determines that it will meet the conditions listed in paragraph G.2 above. (40 CFR 122.41(m)(4)(ii))

4. Notice

a. Anticipated Bypass – If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible, at least 10 days before the bypass. (40 CFR 122.41(m)(3)(i))

b. Unanticipated Bypass – The permittee shall submit oral notice of any other unanticipated bypass within 24 hours, regardless of whether the bypass may endanger health or the environment or whether the bypass exceeds effluent limitations. The notice shall be in accordance with Part A III.C.4.b.

H. Sanitary Sewer Overflows (SSOs)

An SSO is an overflow of wastewater, or other untreated discharge from a separate sanitary sewer system (which is not a combined sewer system), which results from a flow in excess of the carrying capacity of the system or from some other cause prior to reaching the headworks of the sewage treatment facility. SSOs are not authorized under this permit. The permittee shall immediately report any SSO to DEP in accordance with Part A III.C.4 of this permit.

II. PENALTIES AND LIABILITY

A. Violations of Permit Conditions

Any person violating Sections 301, 302, 306, 307, 308, 318 or 405 of the Clean Water Act or any permit condition or limitation implementing such sections in a permit issued under Section 402 of the Act is subject to civil, administrative and/or criminal penalties as set forth in 40 CFR 122.41(a)(2).

Any person or municipality, who violates any provision of this permit; any rule, regulation or order of DEP; or any condition or limitation of any permit issued pursuant to the Clean Streams Law, is subject to criminal and/or civil penalties as set forth in Sections 602, 603 and 605 of the Clean Streams Law.

B. Falsifying Information

Any person who does any of the following:

- Falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit, or

- Knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit (including monitoring reports or reports of compliance or noncompliance)

Shall, upon conviction, be punished by a fine and/or imprisonment as set forth in 18 Pa.C.S.A § 4904 and 40 CFR 122.41(j)(5) and (k)(2).

C. Liability

Nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance pursuant to Section 309 of the Clean Water Act or Sections 602, 603 or 605 of the Clean Streams Law.

Nothing in this permit shall be construed to preclude the institution of any legal action or to relieve the permittee from any responsibilities, liabilities or penalties to which the permittee is or may be subject to under the Clean Water Act and the Clean Streams Law.

D. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. (40 CFR 122.41(c))

III. OTHER RESPONSIBILITIES

A. Right of Entry

Pursuant to Sections 5(b) and 305 of Pennsylvania's Clean Streams Law, and Title 25 Pa. Code Chapter 92a and 40 CFR 122.41(i), the permittee shall allow authorized representatives of DEP and EPA, upon the presentation of credentials and other documents as may be required by law:

1. To enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit; (40 CFR 122.41(i)(1))

2. To have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit; (40 CFR 122.41(i)(2))

3. To inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices or operations regulated or required under this permit; and (40 CFR 122.41(i)(3))

4. To sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act or the Clean Streams Law, any substances or parameters at any location. (40 CFR 122.41(i)(4))

B. Transfer of Permits

1. Transfers by modification. Except as provided in paragraph 2 of this section, a permit may be transferred by the permittee to a new owner or operator only if this permit has been modified or revoked and reissued, or a minor modification made to identify the new permittee and incorporate such other requirements as may be necessary under the Clean Water Act. (40 CFR 122.61(a))

2. Automatic transfers. As an alternative to transfers under paragraph 1 of this section, any NPDES permit may be automatically transferred to a new permittee if:

   a. The current permittee notifies DEP at least 30 days in advance of the proposed transfer date in paragraph 2.b. of this section; (40 CFR 122.61(b)(1))

   b. The notice includes the appropriate DEP transfer form signed by the existing and new permittees containing a specific date for transfer of permit responsibility, coverage and liability between them; and (40 CFR 122.61(b)(2))

   c. DEP does not notify the existing permittee and the proposed new permittee of its intent to modify or revoke and reissue this permit, the transfer is effective on the date specified in the agreement mentioned in paragraph 2.b. of this section. (40 CFR 122.61(b)(3))

d. The new permittee is in compliance with existing DEP issued permits, regulations, orders and schedules of compliance, or has demonstrated that any noncompliance with the existing permits has been resolved by an appropriate compliance action or by the terms and conditions of the permit (including compliance schedules set forth in the permit), consistent with 25 Pa. Code § 92a.51 (relating to schedules of compliance) and other appropriate Department regulations. (25 Pa. Code § 92a.71)

3. In the event DEP does not approve transfer of this permit, the new owner or operator must submit a new permit application.

C. Property Rights

The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege. (40 CFR 122.41(g))

D. Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for a new permit. (40 CFR 122.41(b))

E. Other Laws

The issuance of this permit does not authorize any injury to persons or property or invasion of other private rights, or any infringement of state or local law or regulations.

IV. ANNUAL FEE

Permittees shall pay an annual fee in accordance with 25 Pa. Code § 92a.62. Annual fee amounts are specified in the following schedule and are due on each anniversary of the effective date of the most recent new or reissued permit. All flows identified in the schedule are annual average design flows. (25 Pa. Code § 92a.62)

Small Flow Treatment Facility (SRSTP and SFTF)	$0
Minor Sewage Facility < 0.05 MGD (million gallons per day)	$250
Minor Sewage Facility ≥ 0.05 and < 1 MGD	$500
Minor Sewage Facility with CSO (Combined Sewer Overflow)	$750
Major Sewage Facility ≥ 1 and < 5 MGD	$1,250
Major Sewage Facility ≥ 5 MGD	$2,500
Major Sewage Facility with CSO	$5,000

As of the effective date of this permit, the facility covered by the permit is classified in the following fee category: **Major Sewage Facility >=5 MGD**.

Invoices for annual fees will be mailed to permittees approximately three months prior to the due date. In the event that an invoice is not received, the permittee is nonetheless responsible for payment. Throughout a five year permit term, permittees will pay four annual fees followed by a permit renewal application fee in the last year of permit coverage. Permittees may contact the DEP at 717-787-6744 with questions related to annual fees. The fees identified above are subject to change in accordance with 25 Pa. Code § 92a.62(e).

Payment for annual fees shall be remitted to DEP at the address below by the anniversary date. Checks should be made payable to the Commonwealth of Pennsylvania.

PA Department of Environmental Protection
Bureau of Clean Water
Re: Chapter 92a Annual Fee
P.O. Box 8466
Harrisburg, PA 17105-8466

PART C

I. OTHER REQUIREMENTS

A. No storm water from pavements, area ways, roofs, foundation drains or other sources shall be directly admitted to the sanitary sewers associated with the herein approved discharge.

B. The approval herein given is specifically made contingent upon the permittee acquiring all necessary property rights by easement or otherwise, providing for the satisfactory construction, operation, maintenance or replacement of all sewers or sewerage structures associated with the herein approved discharge in, along, or across private property, with full rights of ingress, egress and regress.

C. Collected screenings, slurries, sludges, and other solids shall be handled and disposed of in compliance with 25 Pa. Code, Chapters 271, 273, 275, 283, and 285 (related to permits and requirements for landfilling, land application, incineration, and storage of sewage sludge), Federal Regulation 40 CFR 257, Pennsylvania Clean Streams Law, Pennsylvania Solid Waste Management Act of 1980, and the Federal Clean Water Act and its amendments. The permittee is responsible to obtain or assure that contracted agents have all necessary permits and approvals for the handling, storage, transport, and disposal of solid waste materials generated as a result of wastewater treatment.

D. The permittee shall optimize chlorine dosages used for disinfection or other purposes to minimize the concentration of Total Residual Chlorine (TRC) in the effluent, meet applicable effluent limitations, and reduce the possibility of adversely affecting the receiving waters. Optimization efforts may include an evaluation of wastewater characteristics, mixing characteristics, and contact times, adjustments to process controls, and maintenance of the disinfection facilities. If DEP determines that effluent TRC is causing adverse water quality impacts, DEP may reopen this permit to apply new or more stringent effluent limitations and/or require implementation of control measures or operational practices to eliminate such impacts.

E. The permittee shall not accept hauled-in wastes at the treatment facility under the following conditions, unless otherwise approved by DEP in writing:

- When acceptance of hauled-in wastes would cause a hydraulic or organic overload as defined in Chapter 94.1 of the DEP's regulations.
- When the treatment facility is considered to be in an existing hydraulic or organic overload condition, as determined by the permittee or DEP, as defined in Chapter 94.1 of the DEP's regulations.
- When the instantaneous flow at the treatment facility exceeds 28 MGD (flow taken from the WQM application #1009404 – Amendment No. 1), and for 24 hours following exceedance of this threshold.

II. POTW PRETREATMENT PROGRAM IMPLEMENTATION

A. General Requirement – The permittee shall operate and implement a POTW pretreatment program in accordance with the federal Clean Water Act, the Pennsylvania Clean Streams Law, and the federal General Pretreatment Regulations at 40 CFR Part 403. The program shall also be implemented in accordance with the permittee's approved pretreatment program and any modifications thereto submitted by the permittee and approved by the Approval Authority.

B. Annual Report and Other Requirements – The permittee shall submit a Pretreatment Annual Report by March 31 of each year to EPA that describes the permittee's pretreatment activities for the previous calendar year. The Pretreatment Annual Report shall include a description of pretreatment activities in all municipalities from which wastewater is received at the permittee's POTW. The Pretreatment Annual Report shall include the following information, at minimum:

1. Industrial Listing – The Annual Report shall contain an updated industrial listing providing the names and addresses of all current Significant Industrial Users (SIUs) and Non-Significant Categorical

Industrial Users (NSCIUs), as defined in 40 CFR 403.3, and the categorical standard, if any, applicable to each. The listing must: (1) identify any users that are subject to reduced reporting requirements under 40 CFR 403.12(e)(3); (2) identify which users are NSCIUs; (3) identify any users that have been granted a monitoring waiver in accordance with 40 CFR 403.12(e)(2) as well as the pollutants for which the waiver was granted and the date of the last POTW sampling event for each pollutant; and (4) identify any categorical industrial users that have been given mass-based limits in place of concentration-based categorical limits in accordance with 40 CFR 403.6(c)(5) or concentration-based limits in place of mass-based categorical limits in accordance with 40 CFR 403.6(c)(6).

In addition, the Annual Report shall contain a summary of any hauled-in wastes accepted at the POTW including the source of the wastes (domestic, commercial or industrial) and the receiving location for acceptance of the wastes. For each industrial source (whether or not classified as an SIU), the report shall indicate (1) the name and address of the industrial source; (2) the average daily amount of wastewater received; (3) a brief description of the type of process operations conducted at the industrial facility; (4) whether the source facility is a categorical industrial user (including NSCIU), significant industrial users, or non-significant industrial user; and (5) any controls imposed on the user.

2. Control Mechanism Issuance – The Annual Report shall contain a summary of SIU control mechanism issuance, including a list of issuance, effective, and expiration dates for each SIU control mechanism. For each general control mechanism issued, provide the names of all SIUs covered by the general control mechanism and an explanation of how the users meet the criteria of 40 CFR 403.8(f)(1)(iii)(A) for issuance of a general control mechanism.

3. Sampling and Inspection – The Annual Report shall contain a summary of the number and types of inspections and sampling events of SIUs by the permittee, including a list of all SIUs either not sampled or not inspected, and the reason that the sampling and/or inspection was not conducted. For any user subject to reduced reporting under 40 CFR 403.12(e)(3), the list shall include the date of the last POTW sampling event and the date of the last POTW inspection of the user. In addition, the report shall include a summary of the number of self-monitoring events conducted by each SIU and the number required to be conducted, including a list of all SIUs that did not submit the required number of reports and the reason why the reports were not submitted. For NSCIUs, the report shall provide the date of the compliance certification required under 40 CFR 403.12(q).

4. Industrial User Compliance and POTW Enforcement – The Annual Report shall contain a summary of the number and type of violations of pretreatment standards and requirements, including local limits, and the actions taken by the permittee to obtain compliance, including compliance schedules, penalty assessments and actions for injunctive relief. The report shall state whether each SIU was in significant noncompliance, as that term is defined in 40 CFR Section 403.8(f)(2)(viii), and include the parameter(s) in violation, the period of violation, the actions taken by the POTW in response to the violations, and the compliance status at the end of the reporting period. A copy of the publication of users meeting the significant noncompliance criteria shall be included. In addition, the report shall provide a list of users previously designated as NSCIUs that have violated (to any extent) any pretreatment standard or requirement during the year and the date and description of the violation(s).

5. Summary of POTW Operations – The Annual Report shall contain a summary of any interference, pass-through, or permit violations by the POTW and indicate the following: (1) which, if any, permit violations may be attributed to industrial users; (2) which IU(s) are responsible for such violations; and (3) the actions taken to address these events. The report shall also include all sampling and analysis of POTW treatment plant influent, effluent, and sludge conducted during the year for local limit and priority pollutants identified pursuant to Section 303(d) of the Clean Water Act, 33 U.S.C. 1313(d).

6. Pretreatment Program Changes – The Annual Report shall contain a summary of any changes made or proposed to the approved program during the period covered by the report and the date of submission to the Approval Authority.

A summary of pretreatment activities shall be incorporated into the permittee's Annual Municipal Wasteload Management Report required by 25 Pa. Code Chapter 94 and referenced in Part B I.C.4 of this permit.

C. Routine Monitoring – The permittee shall conduct monitoring at its treatment plant that, at a minimum, includes quarterly influent, effluent, and sludge analysis for all pollutants for which local limits have been established, and an annual priority pollutant scan for influent and sludge.

D. Notification of Pass Through or Interference – The permittee shall notify EPA and DEP, in writing, of any instance of pass through or interference, as defined at 40 CFR 403.3(p) and (k), respectively, known or suspected to be related to a discharge from an IU into the POTW. The notification shall be attached to the DMR submitted to EPA and DEP and shall describe the incident, including the date, time, length, cause (including responsible user if known), and the steps taken by the permittee and IU (if identified) to address the incident. A copy of the notification shall also be sent to the EPA at the address provided below.

E. Headworks Analysis – The permittee shall submit to EPA a reevaluation of its local limits based on a headworks analysis of its treatment plant within one (1) year of permit issuance, and provide a revised submission within three (3) months of receipt of comments from EPA or DEP unless a longer period of time is granted in writing by EPA or DEP. In order to ensure that the permittee's discharge complies with water quality standards, the reevaluation of local limits shall consider, at a minimum, all water quality standards under 25 Pa. Code Chapter 93 applicable to the pollutants included in the reevaluation, unless the POTW is subject to an effluent limitation for the pollutant in Part A of this permit. The list of pollutants to be evaluated, as well as a sampling plan for collection of necessary data, shall be submitted to EPA within three (3) months of permit issuance. Unless otherwise approved in writing, the list of pollutants shall include arsenic, cadmium, chromium, copper, cyanide, lead, mercury, molybdenum, nickel, selenium, silver, zinc, BOD_5, TSS, ammonia, any pollutants for which a local limit currently exists, any pollutant limited in this permit, as well as any other pollutants that have been identified in the POTW through monitoring or the receipt of indirect discharges and hauled-in wastes in quantities that have the potential to cause pass through and/or interference. For example, facilities receiving residual waste from oil and gas operations should include pollutants such as Total Dissolved Solids (TDS), specific ions such as chlorides and sulfates, specific radionuclides, metals such as barium and strontium, and other pollutants that could reasonably be expected to be present. Within four (4) months of acceptance of the headworks analysis by the Approval Authority, the permittee shall adopt any revisions to the local limits and, if necessary to ensure that the limits are enforceable throughout the service area, notify all contributing municipalities of the need to adopt the revised local limits.

F. Changes to Pretreatment Program – EPA and DEP may require the permittee to submit for approval changes to its pretreatment program if any one or more of the following conditions is present:

1. The program is not implemented in accordance with 40 CFR Part 403;

2. Problems such as interference, pass through or sludge contamination develop or continue;

3. The POTW proposes to introduce new pollutants or an increased loading of approved pollutants as described in Part A III.C.2 of this permit;

4. Federal, State, or local requirements change;

5. Changes are needed to assure protection of waters of the Commonwealth.

Program modification is necessary whenever there is a significant change in the operation of the pretreatment program that differs from the information contained in the permittee's submission, as approved under 40 CFR 403.11.

G. Procedure for Pretreatment Program Changes – Upon submittal by the permittee, and written notice of approval by the Approval Authority to the permittee of any changes to the permittee's approved pretreatment program, such changes are effective and binding upon the permittee unless the permittee objects within 30 days of receipt of the written notice of approval. Any objection must be submitted in writing to EPA and DEP.

H. Correspondence – The Approval Authority shall be EPA at the following address:

Pretreatment Coordinator (3WP41)
U.S. Environmental Protection Agency
1650 Arch Street
Philadelphia, PA 19103-2029

III. SOLIDS MANAGEMENT

A. The permittee shall manage and properly dispose of sewage sludge and/or biosolids by performing sludge wasting that maintains an appropriate mass balance of solids within the treatment system. The wasting rate must be developed and implemented considering the specific treatment process type, system loadings, and seasonal variation while maintaining compliance with effluent limitations. Holding excess sludge within clarifiers or in the disinfection process is not permissible.

B. The permittee shall submit the Supplemental Reports entitled, "Supplemental Report – Sewage Sludge/Biosolids Production and Disposal" (Form No. 3800-FM-BCW0438) as an attachment to the DMR on a monthly basis. When applicable, the permittee shall submit the Supplemental Reports entitled, "Supplemental Report – Hauled In Municipal Wastes" (Form No. 3800-FM-BCW0437) and "Supplemental Report – Hauled In Residual Wastes" (Form No. 3800-FM-BCW0450), as attachments to the DMR.

C. By March 31 of each year, the permittee shall submit a "Sewage Sludge Management Inventory" that summarizes the amount of sewage sludge and/or biosolids produced and wasted during the calendar year from the system. The "Sewage Sludge Management Inventory" may be submitted with the Municipal Wasteload Management Report required by Chapter 94. This summary shall include the expected sewage sludge production (estimated using the methodology described in the U.S. EPA handbook, "Improving POTW Performance Using the Composite Correction Approach" (EPA-625/6-84-008)), compared with the actual amount disposed during the year. Sludge quantities shall be expressed as dry weight in addition to gallons or other appropriate units.

IV. WHOLE EFFLUENT TOXICITY (WET)

A. General Requirements

1. The permittee shall conduct **chronic** WET tests as specified in this section. The permittee shall collect discharge samples and perform WET tests to generate **survival and reproduction** data for the cladoceran, *Ceriodaphnia dubia* and **survival and growth** data for the fathead minnow, *Pimephales promelas*.

2. Samples shall be collected at Outfall 001 in accordance with paragraph E.

3. The permittee shall perform testing using the following dilution series: **18%, 37%, 73%, 87%, and 100%** effluent, with a control, where **73%** is the facility-specific Target In-Stream Waste Concentration (TIWC).

4. The determination of whether a test endpoint passes or fails shall be made using DEP's WET Analysis Spreadsheet (available at www.dep.pa.gov/wett) by comparing replicate data for the control with replicate data for the TIWC dilution or any dilution greater than the TIWC.

5. The permittee shall submit only valid WET test results to DEP.

B. Test Frequency and Reporting

1. WET testing shall be conducted annually, at a minimum, during the period January 1 – December 31. Annual WET tests must be completed at least 6 months apart, and shall start in the year the permit becomes effective if the permit effective date is prior to October 1.

2. A complete WET test report shall be submitted to the DEP regional office that issued the permit within 45 days of test completion. A complete WET test report submission shall include the information contained in paragraph H, below. The permittee shall continue annual WET monitoring, at a minimum, during the permit renewal review period and during any period of administrative extension of this permit.

3. If a test failure is determined for any endpoint during annual monitoring, the permittee shall initiate a re-test for the species with the failure within 45 days of test completion. All endpoints for the species shall be evaluated in the re-test. The results of the re-test shall be submitted to the DEP regional office that issued the permit.

4. If a passing result is determined for all endpoints in a re-test, the permittee may resume annual monitoring.

5. If there is a failure for one or more endpoints in a re-test, the permittee shall initiate or continue quarterly WET testing for both species until there are four consecutive passing results for all endpoints. The results of all tests shall be submitted to the DEP regional office that issued the permit. In addition, the permittee shall initiate a Phase I Toxicity Reduction Evaluation (TRE) as specified in paragraph C, below.

6. The permittee shall attach the WET Analysis Spreadsheet for the latest four consecutive WET tests to the NPDES permit renewal application that is submitted to DEP at least 180 days prior to the permit expiration date.

C. Phase I Toxicity Reduction Evaluation (TRE)

1. The Phase I TRE trigger is one WET endpoint failure followed by a re-test that confirms the failure for the same species. When the TRE process is triggered, quarterly WET testing shall be initiated for both species until there are four consecutive passing results for all endpoints. The Phase I TRE may include a Toxicity Identification Evaluation (TIE) if the permittee cannot immediately identify the possible causes of the effluent toxicity and the possible sources of the causative agents.

2. The permittee shall, within one year following the Phase I TRE trigger, submit a Phase I TRE report to the DEP regional office that issued the permit. The Phase I TRE shall be conducted in accordance with EPA's guidance, "Toxicity Reduction Evaluation for Municipal Wastewater Treatment Plants" (EPA/833B-99/002), "Generalized Methodology for Conducting Industrial Toxicity Reduction Evaluations" (EPA/600/2-88/070), and other relevant EPA guidance, as applicable. If a TIE is conducted as part of the Phase I TRE, it shall conform to EPA's guidance, "Methods for Aquatic Toxicity Identification Evaluations Phase I" (EPA/600/6-91/003), "Phase II" (EPA/600/R-92/080), "Phase III" (EPA/600/R-92/081) and other relevant EPA guidance. The Phase I TRE report shall be submitted with the fourth quarterly WET test report that is completed following the Phase I TRE trigger. The TRE shall include all activities undertaken to identify the cause(s) and source(s) of toxicity and any control efforts.

3. If all four quarterly WET tests produce passing results for all endpoints during the Phase I TRE process, performance of a Phase II TRE is not required, and annual WET testing in accordance with paragraph B.1 may resume.

4. If the four WET tests produce at least one failing result during the Phase I TRE process, the permittee shall continue quarterly WETT monitoring for both species and initiate a Phase II TRE in accordance with paragraph D. In this case, the Phase I TRE must include a schedule for completion of the Phase II TRE. The schedule must include interim milestones and a final completion date not to exceed two years from the initiation of the Phase II TRE. The permittee shall implement the Phase II TRE in accordance with the schedule unless DEP issues written approval to modify the schedule or cease performance of the Phase II TRE.

5. Re-tests during the TRE process are required for invalid tests but are optional and at the discretion of the permittee for valid tests. The results of all re-tests must be submitted to the DEP regional office that issued the permit along with the required elements in paragraph H.

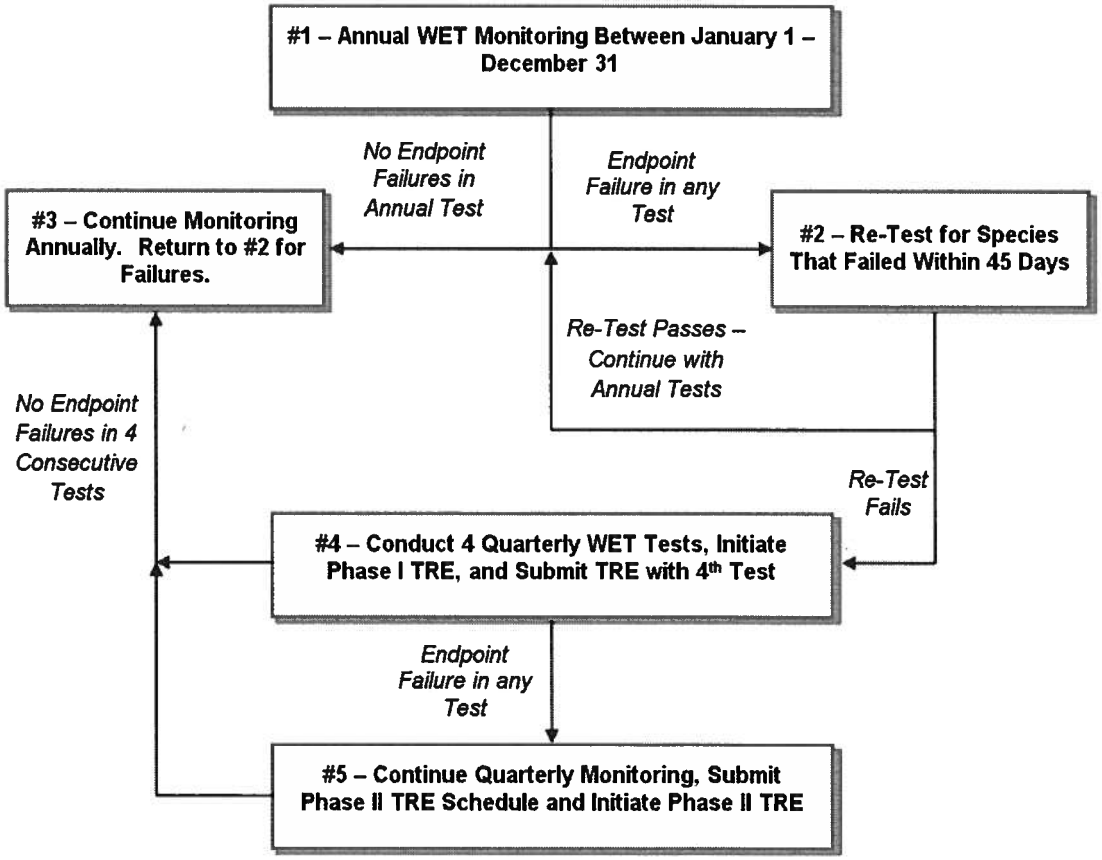
D. Phase II Toxicity Reduction Evaluation (TRE)

1. The Phase II TRE trigger is one WET endpoint failure during performance of the Phase I TRE. A Phase II TRE, if required, shall conform to EPA's guidance, "Toxicity Reduction Evaluation for Municipal Wastewater Treatment Plants" (EPA/833B-99/002), "Generalized Methodology for Conducting Industrial Toxicity Reduction Evaluations" (EPA/600/2-88/070), and other relevant EPA guidance, as applicable. A Phase II TRE evaluates the possible control options to reduce or eliminate the effluent toxicity and the implementation of controls.

2. Once initiated, the Phase II TRE must continue until the source(s) of toxicity are controlled as evidenced by four consecutive WET test passing results for all endpoints, and a final TRE report must be submitted on or before the date specified in the schedule, unless otherwise approved by DEP in writing.

3. If four consecutive quarterly WET tests produce passing results for all endpoints during the Phase II TRE process, annual WET testing in accordance with paragraph B.1 may be initiated or resume.

An overview of the process described in paragraphs B, C and D is presented below:



E. Sample Collection

For each acute testing event, a 24-hour flow-proportioned composite sample shall be collected. For each chronic testing event, three 24-hour flow-proportioned, composite samples shall be collected over a seven day exposure period. The samples must be collected at a frequency of not greater than every two hours and must be flow-proportioned. The samples must be collected at the permit compliance sampling location. Samples must be analyzed within 36 hours from the end of the compositing period and must be placed on ice and held at ≤ 6°C. Refer to the sample handling and preservation regulations set forth in 40 CFR 136, 25 Pa. Code Chapter 252, The NELAC Institute (TNI) Standard, and the appropriate EPA methods.

F. Test Conditions and Methods

Laboratories must be accredited by the DEP Laboratory Accreditation Program in order to perform and report WET tests for NPDES permit compliance. Laboratories must be either State or NELAP accredited.

1. Acute tests shall be completed in accordance with EPA's "Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms" (EPA-821-R-02-012, latest edition). Forty eight (48) hour static non-renewal tests shall be used.

2. Chronic tests shall be completed in accordance with EPA's "Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms" (EPA-821-R-02-013, latest edition). Seven (7) day tests shall be used with renewal every 24 hours.

3. The quality assurance and control (QA/QC) requirements and test acceptability standards specified in EPA's test methods and the requirements set forth in 25 Pa Code Chapter 252 or the TNI Standard must be followed.

4. If the permittee or its accredited laboratory determines that QA/QC requirements and/or test acceptability standards have not been met, a re-test shall be initiated within 45 days. Original test data must be maintained by the laboratory and be submitted to DEP upon request. The justification for a re-test must be clearly documented and kept on file with the sample results.

G. Chemical Analyses

Chemical analyses must follow the requirements of the EPA methods and applicable State and/or Federal regulations.

1. Chemical analysis on effluent samples shall include pH, Conductivity, Total Alkalinity, Total Hardness, Total Residual Chlorine, Total Ammonia (Unionized Ammonia), Dissolved Oxygen and temperature. Chemical analyses as described in the EPA Methods (above) shall be performed for each sampling event, including each new batch of dilution water and each testing event.

2. In addition to the chemical analyses required above, those parameters listed in Part A of the NPDES permit for the outfall(s) tested shall be analyzed concurrently with the WET test by using the method(s) specified in the permit.

H. WET Report Elements

WET test reports that are submitted to DEP must include the requirements identified in 25 Pa. Code § 252.401(j)(1) – (15) or in the TNI Standard, or equivalent, as well as the following information:

1. A general test description, including the origin and age of test organisms, dates and results of reference toxicant tests, light and temperature regimes, and other documentation that QA and test acceptability criteria as specified in EPA's methods and DEP's QA Summaries have been met.

2. A description of sample collection procedures and sampling location.

3. Name(s) of individual(s) collecting and transporting samples, including sample renewals, and the date(s) and time(s) of sample collection.

4. All chemical and physical data including laboratory quantitation limits and observations made on the species. The hardness shall be reported for each test condition.

5. Copies of raw data sheets and/or bench sheets with data entries and signatures.

6. When effluents are dechlorinated, dechlorination procedures must be described and if applicable a thiosulfate control used in addition to the normal dilution water control. If the thiosulfate control results are significantly different from the normal control, as determined using DEP's WET Analysis Spreadsheet, the thiosulfate control shall be used in the spreadsheet for comparison with the TIWC condition. The WET report must specify which control was used to determine whether the test result is pass or fail.

7. A description of all observations or test conditions that may have affected the test outcome.

8. Control charts for the species tested regarding age, temperature test range, mortality data and all reference toxicant tests.

9. A completed WET test summary report (3800-FM-BCW0485).

10. A DEP WET Analysis Spreadsheet printout that provides control and TIWC replicate data and displays the outcome of the test (pass or fail) for each endpoint tested.

    WETT reports shall be submitted to the DEP regional office that issued the permit and, for discharges to the Delaware River basin, the Delaware River Basin Commission (DRBC).

V. REQUIREMENTS FOR TOTAL RESIDUAL CHLORINE (TRC)

Optional Site-Specific Data Collection

If the permittee elects to evaluate chlorine demand concentrations, the study shall be performed in accordance with DEP's guidance, "Implementation Guidance Total Residual Chlorine (TRC) Regulation" (DEP ID 391-2000-015), Appendix B, or subsequent guidance published by DEP. DEP's current modeling practice is to assume an in-stream and discharge chlorine demands of 0.3 mg/l and 0 mg/l, respectively. The study results shall be submitted with the next renewal application.

VI. REQUIREMENTS APPLICABLE TO STORMWATER OUTFALLS

A. The permittee is authorized to discharge non-polluting stormwater from its site, alone or in combination with other wastewaters, through the following outfalls:

Outfall No.	Latitude	Longitude
011	40° 50' 30"	79° 55' 07"
012	40° 50' 29"	79° 55' 06"
013	40° 50' 27"	79° 55' 00"
014	40° 50' 28"	79° 54' 50"
018	40° 50' 30"	79° 54' 49"

A non-polluting stormwater discharge(s) is defined as causing no significant adverse environmental impact.

Monitoring requirements and effluent limitations for these outfalls are specified in Part A of this permit, if applicable.

B. Preparedness, Prevention and Contingency (PPC) Plan

1. The permittee shall develop and implement a PPC Plan in accordance with 25 Pa. Code § 91.34 following the guidance contained in DEP's "Guidelines for the Development and Implementation of Environmental Emergency Response Plans" (DEP ID 400-2200-001), its NPDES-specific addendum and the minimum requirements below.

   a. The PPC Plan must identify all potential sources of pollutants that may reasonably be expected to affect the quality of stormwater discharges from the facility.

   b. The PPC Plan must describe preventative measures and BMPs that will be implemented to reduce or eliminate pollutants from coming into contact with stormwater resulting from routine site activities and spills.

   c. The PPC Plan must address actions that will be taken in response to on-site spills or other pollution incidents.

   d. The PPC Plan must identify areas which, due to topography or other factors, have a high potential for soil erosion, and identify measures to limit erosion. Where necessary, erosion and sediment control measures must be developed and implemented in accordance with 25 Pa. Code Chapter 102 and DEP's "Erosion and Sediment Pollution Control Manual" (DEP ID 363-2134-008).

   e. The PPC Plan must address security measures to prevent accidental or intentional entry which could result in an unintentional discharge of pollutants.

   f. The PPC Plan must include a plan for training employees and contractors on pollution prevention, BMPs, and emergency response measures.

   g. If the facility is subject to SARA Title III, Section 313, the PPC Plan must identify releases of "Water Priority Chemicals" within the previous three years. Water Priority Chemicals are those identified in EPA's "Guidance for the Determination of Appropriate Methods for the Detection of Section 313 Water Priority Chemicals" (EPA 833-B-94-001, April 1994). The Plan must include an evaluation of all activities that may result in the stormwater discharge of Water Priority Chemicals.

   h. Spill Prevention Control and Countermeasure (SPCC) plans may be used to meet the requirements of this section if the minimum requirements are addressed.

2. The permittee shall review and if necessary update the PPC Plan on an annual basis, at a minimum, and when one or more of the following occur:

   a. Applicable DEP or federal regulations are revised, or this permit is revised.

   b. The PPC Plan fails in an emergency.

   c. The facility's design, industrial process, operation, maintenance, or other circumstances change in a manner that materially increases the potential for fires, explosions or releases of toxic or hazardous constituents; or which changes the response necessary in an emergency.

   d. The list of emergency coordinators or equipment changes.

   e. When notified in writing by DEP.

   The permittee shall maintain all PPC Plan updates on-site, make the updates available to DEP upon request.

C. Minimum Required BMPs

In addition to BMPs identified in the PPC Plan, the permittee shall implement the following minimum BMPs relating to stormwater pollution prevention:

1. If applicable, post-construction stormwater BMPs that are required under 25 Pa. Code Chapter 102 must be maintained.

2. Manage sludge in accordance with all applicable permit requirements.

3. Store chemicals in secure and covered areas on impervious surfaces away from storm drains.

4. For new facilities and upgrades, design wastewater treatment facilities to avoid, to the maximum extent practicable, stormwater commingling with sanitary wastewater, sewage sludge, and biosolids.

5. Efficiently use herbicides for weed control. Where practicable, use the least toxic herbicide that will achieve pest management objectives. Do not apply during windy conditions.

6. Do not wash parts or equipment over impervious surfaces that wash into storm drains.

7. Implement infiltration techniques, including infiltration basins, trenches, dry wells, porous pavement, etc., wherever practicabl

D. Routine Inspections.

Areas contributing to a stormwater discharge associated with industrial activity shall be visually inspected for evidence of, or the potential for, pollutants entering the drainage system. BMPs in the PPC Plan and required by this permit shall be inspected on a semiannual basis, at a minimum, to determine whether they are adequate and properly implemented in accordance with the terms of this permit or whether additional control measures are needed. Documentation of inspections shall be maintained on-site and be made available to DEP upon request.

Appendix B
Anticipated Short-Term Capital Improvement Projects

BUTLER AREA SEWER AUTHORITY

ANTICIPATED SHORT-TERM CAPITAL IMPROVEMENT PROJECTS

(AS OF JULY 31, 2023)

	CAPITAL IMPROVEMENT PROJECTS	COMMENTS	ESTIMATED PROJECT COSTS
1.	Structural Repairs of Square Chlorin Contact Tank at WWTP		$50,000
2.	SCADA Upgrade - Phase 3:		100,000
	hardware and programming for remote sites (continued)		
3.	Rock Lick Pump Station Force Main Design	Project Authorized	$20,000
		(October 11, 2022)	
	Rock Lick Pump Station Construction Improvements:	Project Authortized	$200,000
	Replace piping and add bypass piping(continued)	(April 12, 2022)	
4.	Hansen/Whitestown Road Sewer Improvement Design	Project Authortized	$50,000
		(September 13, 2022)	
6.	Area 10 & 11, Alameda Park Sewer Design	Project Authorized	$105,000
		(August 10, 2021)	
7.	DEP CAP - Design pump stations and EQ tanks	Project Authorized	$680,000
	for Fisher Heights, Brewster/Brewster Booster and	(December 8, 2020)	
	and Greenwood/Benbrook/Bryson Pump Station locations		
8.	DEP CAP - Property acquisition service and misc. services	Project Authorized	$50,000
	for Fisher Heights, Brewster/Brewster Booster and	(July 13, 2021)	
	and Greenwood/Benbrook/Bryson Pump Station locations		
9.	Monroe Pump Station Dual Auger Rag Removal System	Project Authoized	$245,000
		(January 10, 2023)	
10.	Fairlane Road Sewer Improvements	Project Authorized	$52,000
		(April 11, 2023)	
11.	Odor Control System Evaluation Proposal approved for Hatch		$12,500
12.	Pump Station Electricl Upgrades		$65,000
13.	Trickling Filter Retaining Wall Repair& Underdrain		$12,000
14.	Repair Metal in Reactor Clarifier #1		$15,000
15.	Area 10 & 11, Alameda Park Sewer Upsize	Initiated Post Sale to PAWC	$1,750,000
16.	Dep CAP Construction costs for Fisher Heights, Brewster/	Initiated Post Sale to PAWC	$12,000,000
	Brewster Booster and Greenwood Benbrook/Bryson EQ tanks		
	tanks, pump stations and land acquisition		

BUTLER AREA SEWER AUTHORITY

ANTICIPATED SHORT-TERM CAPITAL IMPROVEMENT PROJECTS

(AS OF JULY 31, 2023)

	CAPITAL IMPROVEMENT PROJECTS	COMMENTS	ESTIMATED PROJECT COSTS
17.	NHCOG Sewer system jetting and Tving, manhole repairs and mainline repairs primarily in the CAP area		$250,000
18.	Repair and Touchup Paint EQ tanks (Ball Park)		$10,000
19.	Grinder Pump replacement/maint. plan	On going replacement plan	$10,000
20.	Priority Plant Projects		$150,000
21.	Priority Pump Station Projects		$150,000
22.	Replace flights, chains, sprockets in Primary Tanks 4&5		$125,000
23.	Reroute 24" interceptor at Kharns Bridge PADOT bridge replacement project		$120,645
24.	Replace Concrete Steps in Tunnel		$15,000
25.	Replace Truck 42 (F250) with Ford F250		$45,000
26.	Replace Traveling Bridge on Secondary Tank #1 Electrical		$200,000
27.	Remove Storm Drains from process water		$25,000
28.	Replace Truck 19 (1997 vactor) with Jet Truck		$190,000
29.	Blower Building MMC Upgrades		$60,000
30.	Construct Decant Area for Vactor Truck Debris		$20,000
	Total		**$16,777,145**

Appendix C
Anticipated Long-Term Capital Improvement Projects

BUTLER AREA SEWER AUTHORITY

ANTICIPATED LONG-TERM
CAPITAL IMPROVEMENT PROJECTS
(AS OF JULY 31, 2023)

CAPITAL IMPROVEMENT PROJECTS	ESTIMATED PROJECT COSTS
Replace obsolete Federal Pacific Motor Control	$450,000
Centers in Main Pump Station and Chemical Building	
Evaluate construct 8-inch gravity sewer extension to	$15,000
eliminate Foxcroft Pump Station	
Sewer realignment to improve hydraulics of Cupps	$75,000
Road Pump Station force main discharge into	
sewers near Meridian Road and Silver Lane	
Replace Diamond Street Pump Station	$1,000,000
AND	
Replace about 2,700 lineal feet of 8-inch	$560,000
main line gravity sewers and service laterals	
tributary to Diamond Street Pump Station	
Replace September Drive Pump Station	$1,000,000
OR construct gravity sewer extension to	
eliminate pump station	
Renovate and upgrade laboratory at WWTP	$400,000
Phased contracting of manhole raising work in	$1,000,000
older sewer areas of City and Butler Township	
Phased contracting of sewer cleaning & televising	$1,500,000
work in older sewer areas of City & Butler Twp.	
Replace Chlorin Contact wihtr UV Disinfection system th	$4,000,000
Replace traveling bridge sludge collectors on	$3,000,000
secondary settling tanks	
Install new air containment and odor control system	$500,000
for Primary Settling Tanks at WWTP	
Install aluminum safety kick plate rails on existing	$125,000
safety railings at WWTP	
Reconstruct portions of sanitary sewer collection	$170,000,000
system greater than 50 years old (Est. 160 miles)	
SCADA system upgrade, Phase 3 (contuinued)	$800,000
remote site SCADA panels and communications	
Install mag meters at pump stations	$20,000
Replace mixers on aeration basins	$500,000
eight (8) mixers	
Replace excavator	$100,000
Total	**$185,045,000**

Appendix D
Corrective Action Plan

BUTLER AREA SEWER AUTHORITY
2019 CORRECTIVE ACTION PLAN
PUMP STATION SANITARY SEWER OVERFLOWS

SECOND QUARTER 2023 PROGRESS REPORT

I. BACKGROUND

In accordance with the requirements of the Pennsylvania Department of Environmental Protection (DEP) Chapter 94 Regulations, the Butler Area Sewer Authority (BASA) submitted the 2019 Corrective Action Plan (CAP) dated March 11, 2019 to the DEP to evaluate and address the recurring wet weather sanitary sewer overflows (SSOs) during the 2018 record rainfall year associated with several of BASA's sewage pump stations. DEP formally approved the CAP on March 26, 2019. Two revised CAP plans, "RCAP" and "R2CAP", were approved on February 22, 2021 and June 2, 2022 respectively. The CAP plans outline specific tasks to assess the causes of the SSOs and determine the necessary corrective actions to reduce the overloaded conditions and/or to provide the additional capacities, if necessary, to accommodate the hydraulic overload conditions and eliminate the SSOs. A Connection Management Program to limit and/or control new connections to these overloaded pump stations was also included as part of the CAP.

The original CAP was subdivided into three separate sections located in two separate areas of the sewer collection system that have experienced recurring wet weather SSO events: the Fisher Heights Pump Station, Brewster and Brewster Booster Pump Station, and Greenwood, Benbrook and Bryson Pump Stations. Hydraulic relationships with neighboring pump stations, as well as the two separate locations for which the pump stations are located, prompted the Authority to address the two areas using the following nomenclature:

1. Fisher Heights, Brewster, and Brewster Booster Pump Stations (FBB)
2. Greenwood, Benbrook, Bryson Pump Stations (GBB)

The Authority hired Herbert Rowland & Grubic (HRG) to assist with FBB and GBB design evaluation, sewage facilities planning, design and permitting, and bidding and construction services. *As of June 30, 2023, design evaluation (phase 01 & 02) and sewage facilities planning (phase 03) are complete. HRG has FBB 90% design drawings nearly complete (Phase 04); wetland permit applications are being prepared for regulatory agency submission (Phase 05); land acquisition arrangements continue (Phase 06); zoning variance erosion and sediment and stormwater management plans are under way (phase 07). Bidding and Construction for FBB (Phase 8) is anticipated to start in late 2023 and GBB (Phase 9) is scheduled for 2024.*

Included in the progress report, you will find details on inflow and infiltration (I/I) repair and replacement efforts, a summary of corrective actions for the FBB and GBB areas, a section on the Connection Management Program, and HRG's summary reports for the *Second Quarter 2023.*

II. IDENTIFICATION AND REDUCTION OF INFILTRATION AND INFLOW (I/I) SOURCES

The Authority makes continuous effort to identify and remove sources of I/I from our gravity sewers while prioritizing areas that have experienced hydraulic overload. Having the highest amount of historical intermittent sanitary sewer overflows, the Greenwood Pump Station, also known as sewershed #13, has become BASA's primary focus. BASA intends to identify and eliminate I/I, first on the public portion of the sewer system in this area.

Flow monitors were placed into the northwest, northeast, and southeast primary sewer trunk lines associated with sewershed #13 in April 2022. Since that time, it has been determined that the northeast and southeast sewer trunk lines have higher than normal wet weather flows with the southeast trunk line contributing most of the I/I. Two of the flow monitors found in the northeast and southeast trunk lines remain to capture current I/I information and to provide BASA with any I/I flow improvements seen after repairs are completed.

Focusing first on the southeast sewer trunk line, both BASA and an outside contractor completed separate closed-circuit television (CCTV) evaluations of the mainline sections. BASA staff focused on the furthest reaches of the mainline pipe network and captured roughly 3,300 ft of camera footage. Using the North Hills Council of Government pricing, BASA had State Pipe Services CCTV survey approximately 9,066 ft of mainline sewer. As of June 30, 2023, BASA has reviewed the State Pipe Services camera footage, worked with State Pipe Services to devise a plan of action, and mobilized State Pipe Services to complete 19 repair/maintenance projects in Greenwood sewershed #13. The work completed includes: 8 cured in place pipe repairs, 2 heavy line cleanings, 7 open cut repairs, and 2 sections of pipe burst line replacements.

BASA intends to review its internal CCTV footage of the upper reaches of the Greenwood Sewershed #13 collection system and create a repair and replacement plan where necessary. As there are other main line branches in the southeast sewer trunk line, the intent is to understand their pipeline condition as well so that a comprehensive investigation is completed.

III. FISHER HEIGHTS, BREWSTER, AND BREWSTER BOOSTER PUMP STATION SYSTEM

FBB are located within Center Township in the northwest portion of the Butler Area Sewer Shed known as Sullivan Run Sub-Basin. In their respective order, Fisher Heights, Brewster, and Brewster Booster Pump Stations are located at 2019 William Flynn Highway, 306 East Butler Road and 171 East Brewster Road. All wastewater pumped by Fisher Heights Station, as well as separate supplemental gravity fed residential sources, is received by Brewster Pump Station. Brewster Pump Station then directly pumps all wastewater to Brewster Booster Pump Station. Fisher Heights Station has two 250 gpm design flow rate pumps that typically convey 0.02 - 0.07 MGD. Brewster and Brewster Booster Stations are identical in that they have two 600 gpm design flow rate pumps per station that transfer 0.1 – 0.3 MGD. FBB has experienced high wet weather flows caused by excessive I/I entering the collection system. High flows have led to the exceedance of FBB's pumping capacities causing intermittent sanitary sewer overflows. The CAP schedule was designed to eliminate SSOs at FBB by taking immediate and long-term actions to lower the wet weather flow rate and increase the pumping capacities of the stations.

As of *June 30, 2023*, FBB stations will be upgraded with new submersible and immersible pumps, pump control systems, magnetic flow meters, valve vaults, wet wells, bypass connections, trash baskets, cranes and new discharge piping. The existing dry and wet chambers at Fisher Heights and Brewster Pump Stations will be abandoned, backfilled, and replaced by new wet wells. Due to construction constraints, Brewster Booster Pump Station will continue to use a dry pit chamber with a neighboring wet well. Fisher Heights Pump Station will be equipped with a below-ground concrete equalization tank while Brewster Pump Station will have an above-ground glass-fused steel equalization tank. To avoid rags/debris from entering the equalization tanks, Duperon dual auger systems are to be installed at Fisher Heights and Brewster Pump Station. The rag/debris removal system design concepts will differ in that Fisher Heights Pump Station dual auger will only accept equalization tank wastewater flow; while the Brewster Pump Stations dual auger will accept all influent pump station flow.

A. CORRECTIVE ACTIONS COMPLETED AS OF ***JUNE 30, 2023***

1. Installation of Flow Meters Within Fisher Heights Tributary Sewer System
- Original Deadline – Jan. 31, 2019
- Completed – Jan. 2019

2. List of FBB Sewer Rehab Repairs for Contract 2018-04
- Original Deadline – Mar. 31, 2019
- Completed – Mar. 2019

3. FBB Sewer Rehabilitation Repairs for Contract 2018 Completed
- Original Deadline – Aug. 31, 2019
- Completed – Sep. 2019

4. Fisher Heights Station Pump Tests
- Original Deadline – Sep. 30, 2019
- Completed – Aug. 2019

5. Fisher Heights Pump Station Short Term Repairs
- Original Deadline – Dec. 31, 2019
- Completed – Oct. 2019

6. FBB 12-Months SSO Flow Monitoring

- Original Deadline – Fisher Heights Pump Station - Apr. 30, 2020
- Original Deadline – Brewster/Brester Booster Pump Station - May 30, 2020

7. FBB Final Structural Improvements Recommendations and Design Scope

- Original Deadline – Jul. 31, 2020
- Completed – Oct. 2020

8. Sewage Facilities Planning Completion

- Revised "RCAP" Deadline – Jan. 30, 2022
- Completed – Sep. 2021

9. Submission of Water Quality Management Permit Application

- Revised "R2CAP" Deadline – Jan. 31, 2023
- Completed – Jan. 2023

- Water Quality Management permits were approved for all pump stations on April 27, 2023.

B. CORRECTIVE ACTIONS IN PROGRESS

1. Pump Station Design Work

- Revised "R2CAP" Deadline – Aug. 30, 2023

- HRG continued to design stormwater management site plans in coordination with Center Township.
- HRG installed corner pins for land acquisition areas and surveyed geotechnical drilling locations at the pump station sites.
- HRG coordinated as needed with GeoMechanics, Inc. for the start of geotechnical drilling at Fisher and Brewster pump stations.
- HRG provided updated easement exhibits for the Brewster Booster Pump Staton at the request of the Solicitor.
- HRG finalized and printed all three (3) subdivision plans for Fisher, Brewster, and Brewster Booster pump stations on Mylar sheets for landowner signatures coordinated by the Solicitor. HRG has received all signed Mylar sheets from the Solicitor.
- HRG coordinated with Aquastore to meet zoning requirements for the Brewster EQ tank.
- HRG continued writing technical specifications for the FBB contract.
- HRG provided a proposal to complete zoning variances and land development submissions.
- HRG prepared and mailed land development applications for the FBB sites to Center Township on June 28, 2023.
- HRG began filing building permits for Center Township.
- HRG sent electrical progress drawings to BASA and PAWC for review on June 16, 2023.

C. CORRECTIVE ACTIONS TO BE TAKEN

1. FBB Bid Award

- Revised "R2CAP" Deadline January 31, 2024

2. FBB Construction Completion

- Revised "R2CAP" Deadline May 3, 2025

IV. GREENWOOD, BENBROOK & BRYSON PUMP STATION SYSTEM

GBB are all located within Butler Township in the western portion of the Butler Area Sewer Shed known as Deshon Sub-Basin. In their respective order, Greenwood, Benbrook, and Bryson Pump Stations are located at 200 Greenwood Drive, 524 South Benbrook Road, and 106 Bryson Road. Wastewater is pumped consecutively in the order of Greenwood, Benbrook, Bryson. However, Benbrook does receive a small amount of flow from local residential sources. GBB are all equipped with two 500 gpm design capacity pumps and generally pump 0.19 - 0.24 MGD. GBB has experienced high wet weather flows caused by excessive I/I entering the collection system. High flows have led to the exceedance of GBB's pumping capacity causing intermittent sanitary sewer overflows. The CAP schedule was designed to eliminate SSOs at GBB by taking immediate and long-term actions to lower the wet weather flow rate and increase the pumping capacities of the stations.

As of *June 30, 2023*, Greenwood, Benbrook, and Bryson Pump Stations will be upgraded. Greenwood and Bryson Pump Stations will be equipped with new submersible pumps, pump control systems, magnetic flow meters, valve vaults, wet wells, bypass connections, trash baskets, cranes, discharge and force main piping. The existing dry and wet chambers at each station will be abandoned, backfilled, and replaced by new wet wells. A below-ground equalization tank is to be installed at Greenwood Pump Station. To avoid rags/debris from entering the station, as well as the equalization tank, a Duperon dual auger system is to be installed on Greenwood Pump Station's influent wastewater line.

Rather than accepting all flows from Greenwood Pump Station as Benbrook Pump Station currently operates, the new design will eliminate these flows and only accept wastewater from 5-6 households via gravity sewer lines. Future flows will be diverted to the Greenwood force main line using a triplex E/One grinder pump system near the existing wet well. With the exception of the pump house that will be used to house the new E/One control panel and offer extra storage space, the existing infrastructure will be abandoned.

A. CORRECTIVE ACTIONS COMPLETED AS OF *JUNE 30, 2023*

1. List of Sewer Rehab Repairs for Contract 2018-04
- Original Deadline – Mar. 31, 2019
- Completed – Mar. 2019

2. Sewer Rehabilitation Repairs for Contract 2018 Completed
- Original Deadline – Aug. 31, 2019
- Completed – Sep. 2019

3. 12-Month Flow Monitoring for any Occurrences of Sanitary Sewer Overflows
- Original Deadline – May 31, 2020
- Ongoing

4. Final Structural Improvements Recommendations and Design Scope
- Original Deadline – Nov. 30, 2020
- Completed – Oct. 2020

5. Sewage Facilities Planning Completion
- Revised "RCAP" Deadline – Jan. 30, 2022
- Completed – Sep. 2021

6. Sewage Facilities Planning Modification
- Revised "R2CAP" Deadline – July 31, 2022
- Completed – July 2022

7. Submission of Water Quality Management Permit Application
- Revised "R2CAP" Deadline – Jan. 31, 2023
- Completed – Jan 2023

- Water Quality Management permits were approved for all pump stations on April 27, 2023.

B. CORRECTIVE ACTIONS IN PROGRESS

1. Pump Station Design Work
- Revised "R2CAP" Deadline – Dec. 31, 2024

- HRG continued to design stormwater management (SWM) site plans in coordination with Butler Township.
- HRG completed utility and wetland survey of the east side of S. Benbrook Road for the alternate Greenwood Force Main alignment.
- HRG continued the GP-5 permit application for the Greenwood force main with the new location of the proposed force main.
- HRG installed corner pins for land acquisition areas and surveyed geotechnical drilling locations at the pump station sites.
- HRG coordinated as needed with GeoMechanics, Inc. for the start of geotechnical drilling at Greenwood and Bryson pump stations.
- HRG provided updated easement exhibits for the Bryson Pump Station properties at the request of the Solicitor.
- HRG finalized and printed the two (2) subdivision plans for Greenwood and Bryson pump stations on Mylar sheets for landowner signatures coordinated by the Solicitor. HRG has received both signed Mylar sheets from the Solicitor.
- HRG provided a proposal to complete zoning variances and land development submissions.
- HRG began filing building permits for Butler Township.
- HRG sent electrical progress drawings to BASA and PAWC for review on June 16, 2023.

C. CORRECTIVE ACTIONS TO BE TAKEN

1. <u>GBB Bid Award</u>
- Revised "R2CAP" Deadline Apr. 30, 2025

2. <u>GBB Construction Completion</u>
- Revised "R2CAP" Deadline Aug. 31, 2026

V. CONNECTION MANAGEMENT PROGRAM

Under the DEP's Chapter 94 Regulations, BASA must prohibit new sewer service connections to the gravity sewer systems tributary to the Fisher, Brewster Booster (FBB) and Greenwood, Benbrook, Bryson (GBB) Pump Stations unless approved by DEP. BASA's other pump station facilities and sewer system areas that are not hydraulically overloaded are not subject to this new connection prohibition.

BASA's original CAP submittal included a provision that BASA may request DEP approval of an additional new sewer connection allotment for use during each upcoming year as part of BASA's Fourth Quarter Progress Report.

As part of BASA's Fourth Quarter 2022 Progress Report, BASA requested and was approved for 45 EDUs, or 18,000 gallons per day (gpd), of sewage flow (based on 400 gpd/EDU) within the CAP sewer service areas for use during the period from February 1, 2023 through January 31, 2024. BASA's request for 45 EDUs was based upon 35 EDUs from a proposed apartment complex in the GBB system and an additional 10 EDUs for single household connections. From February 1, 2023 to *June 30, 2023*, no sewer connection permits have been completed.

In addition, BASA also reserved the right to approve and issue new sewer connection permits for any property that meets the specific exception definitions in the Chapter 94 Regulations. Any replacement of discharge exceptions that may be approved by BASA must be reported to the DEP, along with documentation supporting the replacement exception. Any proposed connections that would meet the exception criteria for the elimination of a threat to public health or for a facility of public need must be submitted to DEP for approval of the exception prior to the issuance of a new sewer connection permit. Through *June 30, 2023*, BASA has not requested any such sewer connection exceptions from the DEP.

VI. HRG MONTHLY PROGRESS REPORTS AND SCHEDULE

Herbert, Rowland & Grubic, Inc.
220 West Kensinger Drive, Suite 100
Cranberry Township, PA 16066
724.779.4777
www.hrg-inc.com

PROGRESS REPORT

BUTLER AREA SEWER AUTHORITY

Report Period: April 2023
HRG Project Number: R004192.0430

May 1, 2023

The following summarizes the recent activities for the Planning, Design, and Permitting Services of the Corrective Action Plan (CAP) Pump Station Upgrades regarding Fisher-Brewster-Booster (FBB) and Greenwood-Benbrook-Bryson (GBB) pump stations:

TASKS COMPLETED THIS MONTH

- Water Quality Management (WQM) permits were approved for all pump stations on April 27.
- HRG completed utility and wetland survey of the east side of S. Benbrook Road for the alternate Greenwood Force Main alignment.
- HRG installed corner pins for land acquisition areas and surveyed geotechnical drilling locations at the pump station sites.
- HRG continued to design stormwater management (SWM) site plans and coordination with Butler and Center Townships.
- HRG continued the GP-5 permit application for the Greenwood force main with the new location of the proposed force main.
- HRG provided a proposal to complete zoning variances and land development submissions.
- HRG made additional edits to the land acquisition/easement exhibits and subdivision plans after discussions with the solicitor.
- HRG began writing technical specifications for the FBB contract.

TASKS FOR NEXT MONTH

- HRG will continue to prepare and submit stormwater management plans for FBB then GBB.
- HRG will continue to work on GP-5 permit based on the new Greenwood force main alignment.
- HRG will continue with structural and electrical design.
- HRG will continue coordinating with BASA's selected geotechnical engineering firm, GeoMechanics Inc., to complete geotechnical borings at Fisher, Brewster, Greenwood, and Bryson Pump Stations.
- HRG will continue coordination for land acquisition and easement acquisition, as needed.
- Upon execution of the proposal, HRG will complete work for zoning variances and land development submissions.
- HRG will continue drafting technical specifications for the FBB contract.
- HRG will draft Highway Occupancy Permit (HOP) for the Greenwood force main based on newest alignment.

Please see attached schedule for long-term tasks and milestones. Feel free to contact us if you have any questions regarding this report or other items.

Respectfully submitted,

Herbert, Rowland & Grubic, Inc.

John D. Klein
Team Leader | Water & Wastewater

Landon R. Hacker, EIT
Staff Professional | Water & Wastewater

JDK/LRH/kmg
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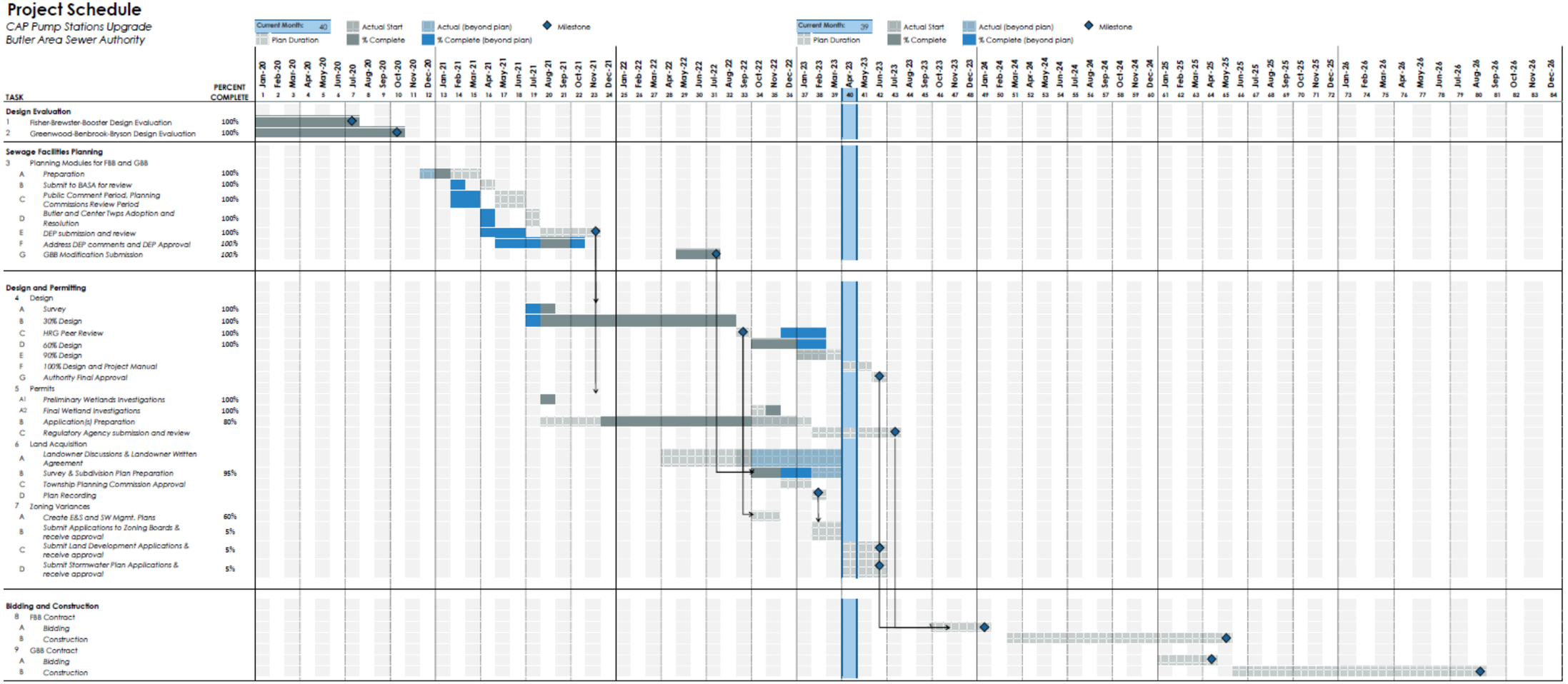
Enclosure: Project Schedule

Project Schedule

CAP Pump Stations Upgrade
Butler Area Sewer Authority



TASK			PERCENT COMPLETE
Design Evaluation			
1		Fisher-Brewster-Booster Design Evaluation	100%
2		Greenwood-Benbrook-Bryson Design Evaluation	100%
Sewage Facilities Planning			
3		Planning Modules for FBB and GBB	
	A	*Preparation*	100%
	B	*Submit to BASA for review*	100%
	C	*Public Comment Period, Planning Commissions Review Period*	100%
	D	*Butler and Center Twps Adoption and Resolution*	100%
	E	*DEP submission and review*	100%
	F	*Address DEP comments and DEP Approval*	100%
	G	*GBB Modification Submission*	100%
Design and Permitting			
4		Design	
	A	*Survey*	100%
	B	*30% Design*	100%
	C	*HRG Peer Review*	100%
	D	*60% Design*	100%
	E	*90% Design*	
	F	*100% Design and Project Manual*	
	G	*Authority Final Approval*	
5		Permits	
	A1	*Preliminary Wetlands Investigations*	100%
	A2	*Final Wetland Investigations*	100%
	B	*Application(s) Preparation*	80%
	C	*Regulatory Agency submission and review*	
6		Land Acquisition	
	A	*Landowner Discussions & Landowner Written Agreement*	
	B	*Survey & Subdivision Plan Preparation*	95%
	C	*Township Planning Commission Approval*	
	D	*Plan Recording*	
7		Zoning Variances	
	A	*Create E&S and SW Mgmt. Plans*	60%
	B	*Submit Applications to Zoning Boards & receive approval*	5%
	C	*Submit Land Development Applications & receive approval*	5%
	D	*Submit Stormwater Plan Applications & receive approval*	5%
Bidding and Construction			
8		FBB Contract	
	A	*Bidding*	
	B	*Construction*	
9		GBB Contract	
	A	*Bidding*	
	B	*Construction*	

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PROGRESS REPORT

BUTLER AREA SEWER AUTHORITY

Report Period: May 2023
HRG Project Number: R004192.0430

June 6, 2023

The following summarizes the recent activities for the Planning, Design, and Permitting Services of the Corrective Action Plan (CAP) Pump Station Upgrades regarding Fisher-Brewster-Booster (FBB) and Greenwood-Benbrook-Bryson (GBB) pump stations:

TASKS COMPLETED THIS MONTH

- HRG redesigned the Greenwood Pump Station force main alignment along S. Benbrook Road as requested. Upon approval of the alignment, HRG will prepare and submit a Highway Occupancy Permit (HOP) and finalize the GP-5 stream crossing permit.
- HRG finalized and printed all five (5) subdivision plans on Mylar sheets for landowner signatures coordinated by the Solicitor.
- HRG provided updated easement exhibits for the Bryson Pump Station properties and the Brewster Booster land acquisition property at the request of the Solicitor.
- HRG continued to draft land development applications for the FBB sites.
- HRG coordinated with Aquastore to meet zoning requirements for the Brewster EQ tank.
- HRG coordinated as needed with GeoMechanics, Inc. for the start of geotechnical drilling at Fisher, Brewster, Greenwood, and Bryson pump stations.
- HRG continued writing technical specifications for the FBB contract.

TASKS FOR NEXT MONTH

- HRG will submit the land development applications for the FBB contract.
- HRG will finalize and submit the GP-5 permit and begin drafting the HOP pending approval of the new Greenwood force main alignment.
- HRG will continue with structural and electrical design.
- HRG will continue coordinating with BASA's selected geotechnical engineering firm, GeoMechanics, Inc., to finish geotechnical borings at Fisher, Brewster, Greenwood, and Bryson Pump Stations.
- HRG will continue coordination for land acquisition and easement acquisition, as needed.
- HRG will continue drafting technical specifications for the FBB contract.

Please see attached schedule for long-term tasks and milestones. Feel free to contact us if you have any questions regarding this report or other items.

Respectfully submitted,

Herbert, Rowland & Grubic, Inc.

John D. Klein
Team Leader | Water & Wastewater

Landon R. Hacker, EIT
Staff Professional | Water & Wastewater

JDK/LRH/kmg
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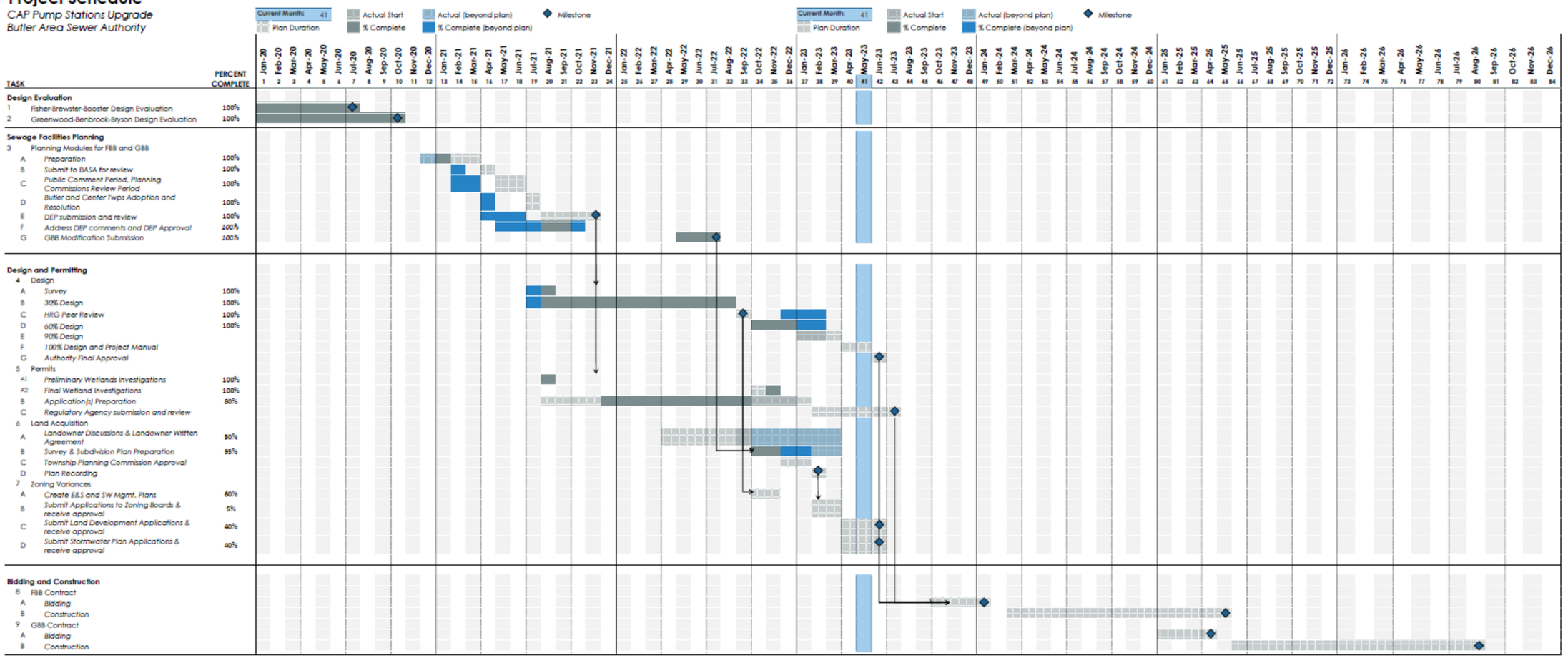
Enclosure: Project Schedule

Project Schedule

CAP Pump Stations Upgrade
Butler Area Sewer Authority



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PROGRESS REPORT

BUTLER AREA SEWER AUTHORITY

Report Period: June 2023
HRG Project Number: R004192.0430

July 5, 2023

The following summarizes the recent activities for the Planning, Design, and Permitting Services of the Corrective Action Plan (CAP) Pump Station Upgrades regarding Fisher-Brewster-Booster (FBB) and Greenwood-Benbrook-Bryson (GBB) pump stations:

TASKS COMPLETED THIS MONTH

- HRG received approval for the re-routed Greenwood Pump Station force main alignment along S. Benbrook Road as requested.
- HRG finalized and printed all five (5) subdivision plans on Mylar sheets for landowner signatures coordinated by the Solicitor. HRG has received four (4) signed Mylar sheets from the solicitor (Brewster not yet returned).
- HRG mailed land development applications for the FBB sites to Center Township on June 28.
- HRG began filing building permits for Center and Butler Townships.
- HRG continued writing technical specifications for the FBB contract.
- HRG sent electrical progress drawings to BASA and PAW for review on June 16.

TASKS FOR NEXT MONTH

- HRG will support and assist the FBB land development applications through the approval process.
- HRG will continue preparing land development applications for the GBB sites.
- HRG will finalize and submit the GP-5 permit and begin drafting the HOP for the Greenwood force main alignment.
- HRG will continue with structural and electrical design.
- HRG expects to receive the geotechnical drilling reports by the end of July.
  - HRG will incorporate findings into design and specs as needed.
- HRG will continue coordination for land acquisition and easement acquisition, as needed.
- HRG will continue drafting technical specifications for the FBB contract.

Please see attached schedule for long-term tasks and milestones. Feel free to contact us if you have any questions regarding this report or other items.

Respectfully submitted,

Herbert, Rowland & Grubic, Inc.

John D. Klein
Team Leader | Water & Wastewater

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JDK/LRH/kmg
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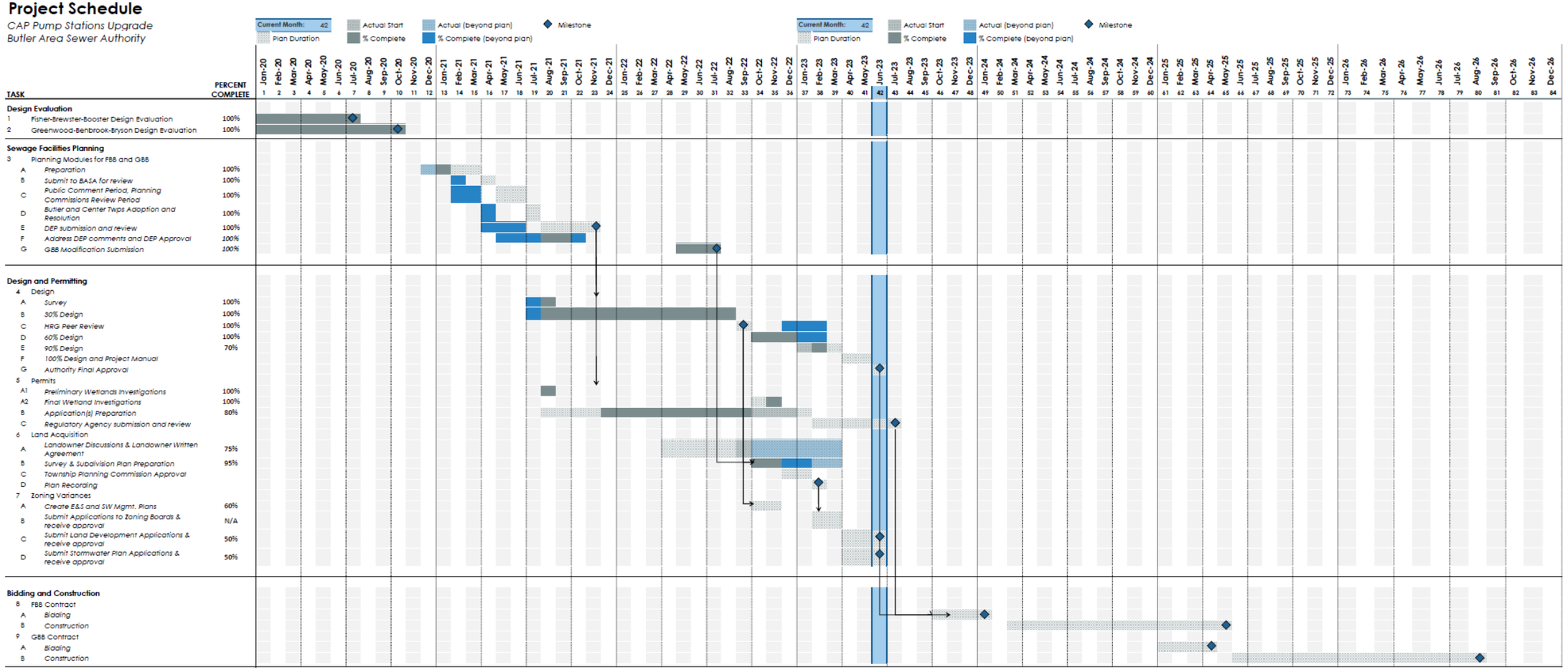
Enclosure: Project Schedule

Project Schedule

CAP Pump Stations Upgrade
Butler Area Sewer Authority



Appendix E
Rate Schedule For
New Service Connections

BUTLER AREA SEWER AUTHORITY
NOTICE OF CHANGE IN RATES EFFECTIVE OCTOBER 1, 2023

BILLING DISTRICT		ANNUAL BASE SEWER SERVICE RATE # ($/EDU)	ANNUAL AREA SEWER DEBT SURCHARGE RATE ($/EDU)	TOTAL PER YEAR ($/EDU)	TOTAL PER QUARTER ($/EDU)	TOTAL PER MONTH ($/EDU)
BUTLER CITY	BC	546.00		546.00	136.50	45.50
BUTLER/SUMMIT	BS	546.00		546.00	136.50	45.50
BUTLER TOWNSHIP	BT	546.00		546.00	136.50	45.50
CENTER/LAGOON	CL	546.00		546.00	136.50	45.50
CENTER TOWNSHIP	CT	546.00		546.00	136.50	45.50
DESHON AREA	DA	546.00		546.00	136.50	45.50
EAST BUTLER	EB	546.00		546.00	136.50	45.50
HULL PLAN	HP	546.00		546.00	136.50	45.50
MERIDIAN AREA	MA	546.00		546.00	136.50	45.50
MERIDIAN/HEATHER	MH	546.00		546.00	136.50	45.50
NORTHWEST AREA	NW	546.00		546.00	136.50	45.50
OAK HILLS AREA	OH	546.00		546.00	136.50	45.50
Dutchtown Opt 1		546.00		546.00	136.50	45.50
Dutchtown Opt 2		546.00	432.00 *	978.00	244.50	81.50
Dutchtown Opt 3		546.00	576.00 **	1,122.00	280.50	93.50
SOUTH BUTLER	SB	546.00		546.00	136.50	45.50

 # Base rate increased by $2.50 per month per EDU effective October 1, 2023 (last increase 7/1/2022).

*** Surcharge effective January 1, 2011 (surcharge anticipated to be applied until December 31, 2035).**

**** Surcharge effective January 1, 2011 (surcharge anticipated to be applied until December 31, 2035).**

For sewer services effective July 1, 2011, interest will be applied at 10% APR (5% APR on liens).

EDU = Equivalent Dwelling Unit (or Unit) average water usage of 4,000 gallons per month.

BASE SEWER SERVICE RATE FOR MULTI-FAMILY RESIDENTIAL UNITS:	TOTAL PER YEAR # ($/EDU)	TOTAL PER QUARTER # ($/EDU)	TOTAL PER MONTH # ($/EDU)
For the first 25 Units or any part thereof	546.00	136.50	45.50
For the next 25 Units or any part thereof	535.20	133.80	44.60
For the next 25 Units or any part thereof	524.40	131.10	43.70
For the next 25 Units or any part thereof	513.60	128.40	42.80
For the next 25 Units or any part thereof	502.80	125.70	41.90
For the next 25 Units or any part thereof	492.00	123.00	41.00
For all Units over 150 or any part thereof	481.20	120.30	40.10

Appendix F
Current Insurance Coverage

THE CINCINNATI INSURANCE COMPANIES
Everything Insurance Should Be®

Mailing Address:
P.O. Box 145496
Cincinnati, OH 45250-5496

Street Address
6200 S. Gilmore Road
Fairfield, OH 45014-5141
513.870.2000

POLICY SUMMARY

Insured:	BUTLER AREA SEWER AUTHORITY
Quote Number:	1740046 V1
Policy Number:	ETD0455836
Policy Dates:	10/01/2020 - 10/01/2023
Trans Eff Date:	12/15/2020

PREMIUM SUMMARY	PREMIUM
Commercial Auto	$17,501.00
Property	$42,226.00
General Liability	$20,896.00
Inland Marine	$7,229.00
Cyber Risk Liability	$329.00
Umbrella	$9,031.00
Terrorism	$1,226.00
Installment Charge	$18.00
Total Annual Premium	**$98,456.00**

LOCATION SCHEDULE

(cont.)

Loc Number	Address	Bldg Number
28	519 NEGLEY AVE BUTLER PA 16001	6

PROPERTY	LIMIT	PREMIUM
ALL LOCATIONS		
Blanket Information		
Combined Blanket Building and BPP Insured & Others	$96,030,554	
Coinsurance: 90%		
Deductible: 2,500		
Valuation: Replacement Cost		
Agreed Value: Yes		
Inflation Guard: No		
Margin Clause: No		
Bridge Endorsement		Included
Business Personal Property Extension Coverage		$374.00
Deductible: 2,500		
Property Off Premises (All Other)	$100,000	
Water Utilities Commercial Property Endorsement		$805.00
Blanket Coverage Limit	$1,000,000	
LOCATION 1 - 100 LITMAN RD, BUTLER, PA 16001		
BUILDING 1		
Building Coverage	$2,089,237	$715.00
Blanket: Yes		
Deductible: 2,500		
Valuation: Replacement Cost		
Agreed Value: Yes		
Inflation Guard: No		
ACV Provision: No		
Cosmetic Exclusion: No		
Earthquake	$336,000	$31.00
Blanket: Yes		
Deductible: 25,000		
Flood	$1,000,000	$4,000.00
Blanket: Yes		
Deductible: 50,000		
Business Income - Coinsurance	$1,000,000	$220.00
Extra Expense: Yes		
Coinsurance: 90%		
Waiting Period Deductible: Zero		
Agreed Value: No		
BPP - Insured & Others	$588,020	$202.00
Blanket: Yes		
Deductible: 2,500		
Valuation: Replacement Cost		
Agreed Value: Yes		
Inflation Guard: No		
Water Backup from Sewers, Drains, Septic Systems or Sump Pumps	$100,000	$158.00
Deductible: 2,500		
BUILDING 2		
Building Coverage	$6,447,410	$2,208.00
Blanket: Yes		
Deductible: 2,500		
Valuation: Replacement Cost		
Agreed Value: Yes		
Inflation Guard: No		
ACV Provision: No		
Cosmetic Exclusion: No		
Earthquake	$100,000	$11.00
Blanket: Yes		
Deductible: 25,000		
BPP - Insured & Others	$5,869,511	$2,010.00
Blanket: Yes		
Deductible: 2,500		

(cont.)

Inflation Guard: No		
ACV Provision: No		
Cosmetic Exclusion: No		
Earthquake	$5,000	$1.00
Blanket: Yes		
Deductible: 25,000		
Total Property Premium		**$42,226.00**

GENERAL LIABILITY	LIMIT	PREMIUM
Premises Operations And Products/Completed Operations		
Occurrence Limit: $1,000,000		
General Aggregate: $3,000,000		
Products Aggregate Limit: $3,000,000		
Personal and Advertising Injury Limit: $1,000,000		
Exclusion Personal and Advertising Injury: No		
Exclusion Damage to Premises Rented to You: No		
Exclusion Employees and Volunteer Workers as Insureds: No		
Medical Payments: $10,000		
Excess Med Pay: No		
ALL LOCATIONS		
Employee Benefit Liability	$1,000,000/$3,000,000	$222.00
Water Utilities Commercial General Liability Broadened Endorsement		$984.00
LOCATION 1 - 100 LITMAN RD, BUTLER, PA 16001		
Classification Description	**Premium Basis**	**Premium**
98810 SEWAGE DISPOSAL-PLANT OPERATIONS	Payroll	
Prem/Op Exposure: 606,341		$5,459.00
Prod/CO Exposure: Included		Included
Classification Description	**Premium Basis**	**Premium**
48039 SEWERS	Each	
Prem/Op Exposure: 230		$14,216.00
Prod/CO Exposure: Included		Included
Classification Description	**Premium Basis**	**Premium**
49451 VACANT LAND - OT NFP	Each	
Prem/Op Exposure: 13		$15.00
Prod/CO Exposure: Included		Included
Total General Liability Premium		**$20,896.00**

CYBER RISK LIABILITY	LIMIT	DEDUCTIBLE
Cincinnati Data Defender Coverage		
A. Response Expenses	$50,000	$1,000.00
Forensic Information Technology Review Sublimit	$25,000	
Legal Review Sublimit	$25,000	
Public Relations Services Sublimit	$25,000	
B. Defense and Liability	$50,000	$1,000.00
Regulatory Fines and Penalties Sublimit	$25,000	
Payment Card Industry Fines and Penalties Sublimit	$25,000	
C. Identity Recovery	$25,000	$250.00
Lost Wages and Child and Elder Care Sublimit	$5,000	
Mental Health Counseling Sublimit	$1,000	
Miscellaneous Unnamed Costs Sublimit	$1,000	
Retroactive Date: 10/01/2017		
CINCINNATI DATA DEFENDER COVERAGE PREMIUM		**$87.00**
Cincinnati Network Defender Coverage		
A. Computer Attack	$100,000	$1,000.00
Loss of Business Sublimit	$50,000	
Public Relations Sublimit	$50,000	
Cyber Extortion Sublimit	$10,000	$1,000.00
B. Network Security Liability and Electronic Media Liability	$100,000	$1,000.00
Retroactive Date: 10/01/2017		
CINCINNATI NETWORK DEFENDER COVERAGE PREMIUM		**$242.00**
Total Cyber Risk Liability Premium		**$329.00**

(cont.)

INLAND MARINE	LIMIT	PREMIUM
ALL LOCATIONS		
Contractors Equipment		
Scheduled Equipment Deductible: 500 Flat Valuation: ACV	$186,363	$1,025.00
Scheduled Equipment Deductible: 2,500 Flat Valuation: ACV	$70,959	$390.00
Scheduled Equipment Deductible: 2,500 Flat Valuation: FRC	$183,865	$1,011.00
Scheduled Equipment Deductible: 2,500 Flat Valuation: FRC	$302,642	$1,665.00
Scheduled Equipment Deductible: 2,500 Flat Valuation: ACV	$75,578	$416.00
Scheduled Equipment Deductible: 2,500 Flat Valuation: ACV	$126,274	$695.00
Scheduled Equipment Deductible: 2,500 Flat Valuation: ACV	$56,800	$312.00
Scheduled Equipment Deductible: 500 Flat Valuation: ACV	$82,200	$452.00
Scheduled Equipment Deductible: 2,500 Flat Valuation: ACV	$27,892	$153.00
Scheduled Equipment Deductible: 2,500 Flat Valuation: ACV	$25,114	$138.00
Scheduled Equipment Deductible: 2,500 Flat Valuation: ACV	$31,137	$171.00
Coinsurance: 80%		
Equipment Leased or Rented From Others Deductible: 500Flat Valuation: ACV	$45,000	$200.00
Electronic Data Processing - Blanket		
Coverage A Blanket Deductible: 1,000/1,000	$159,595	$351.00
Transportation		
For Each Loss That Involves More Than One Railroad Car, Vessel or Vehicle Deductible: 2,500	$100,000	
You, On a Vehicle You Own, Lease or Hire		$250.00
LOCATION 1 - 100 LITMAN RD, BUTLER, PA 16001		
Total Inland Marine Premium		**$7,229.00**

COMMERCIAL AUTO	LIMIT	PREMIUM
Liability: CSL $1,000,000 (PA) UM/UIM Limit Type: CSL $35,000 Non-Stacked UIM: Limit Type:CSL $35,000 First Party Benefit Type: Basic (With WC)		
CinciPlus® Business Auto Expanded Coverage (XC®)		$251.00

(cont.)

Scheduled Vehicles

Vehicle	Liab	OTC DED	Collision DED	UM/UIM	Valuation-Cost New	Garage State	Premium
2000 JOHN DEERE BACKHOE (PA) 0000					$70,959	PA	**$472.00**
2015 GODWIN TRAILER Dri-Prime (PA) 0000					$56,800	PA	**$546.00**
1997 FORD H-SERIES (PA) 2683						PA	**$1,144.00**
2008 INTERNATIONAL 7000 (PA) 0144						PA	**$1,251.00**
2009 FORD F350 (PA) 5461		$500	$500		$28,285	PA	**$670.00**
2009 FORD F350 (PA) 5462		$500	$500		$28,285	PA	**$670.00**
2011 INTERNATIONAL 4000 (PA) 4074		$500	$500		$90,168	PA	**$1,063.00**
2011 FORD F450 (PA) 0806		$500	$500		$42,753	PA	**$813.00**
2011 FORD F550 (PA) 5499					$75,578	PA	**$589.00**
2011 FORD ECONOLINE (PA) 2208					$126,274	PA	**$563.00**
2011 FORD RANGER (PA) 1062		$500	$500		$25,015	PA	**$769.00**
2012 FORD ECONOLINE (PA) 3375		$500	$500		$30,445	PA	**$847.00**
2012 FORD F350 (PA) 4379		$500	$500		$36,808	PA	**$805.00**
2012 FORD F250 (PA) 6260		$500	$500		$38,030	PA	**$907.00**
2014 FORD F250 (PA) 9575		$500	$500		$32,715	PA	**$905.00**
2017 FORD EXPLORER (PA) 9225		$500	$500		$35,925	PA	**$1,123.00**
2001 VIKING TRAILER (PA) 8034		$500	$500		$9,100	PA	**$94.00**
2001 FOREST RIVER TRAILER (PA) 0796		$500	$500		$2,297	PA	**$62.00**
2011 VIKING TRAILER (PA) 8758		$500	$500		$6,290	PA	**$93.00**
2018 FORD F350 (PA) 2780		$500	$500		$43,015	PA	**$1,041.00**
2019 FORD TRANSIT (PA) 6700		$500	$500		$36,600	PA	**$1,157.00**

(cont.)

Vehicle	Liab	OTC DED	Collision DED	UM/UIM	Valuation-Cost New	Garage State	Premium
2020 FORD F250 (PA) 6177		$500	$500		$40,095	PA	**$1,219.00**

Additional Auto Coverages

Coverage	Liab	Premium
Hired and Non-Owned Auto Liability		**$447.00**

Total Commercial Auto Premium	**$17,501.00**

UMBRELLA	LIMIT	PREMIUM
Commercial Umbrella		$9,031.00
Occurrence	$4,000,000	
Aggregate	$4,000,000	
Total Umbrella Premium		**$9,031.00**

DISCLAIMER: This summary is not a policy. For a complete statement of the coverages and exclusions, please see the policy contract. Any changes to the policy and use of scheduled credits or debits is subject to approval by the company.

Appendix G
BASA New Industrial Appraisal June 2023

The June 2023 Industrial Appraisal Report is contained on the attached USB Drive