

Application Type Renewal  
Facility Type Municipal  
Major / Minor Minor

**NPDES PERMIT FACT SHEET  
INDIVIDUAL SEWAGE**

Application No. PA0058378  
APS ID 1037363  
Authorization ID 1351579

**Applicant and Facility Information**

Applicant Name	<u>Upper Uwchlan Township Municipal Authority</u>	Facility Name	<u>St Andrews Brae STP</u>
Applicant Address	<u>140 Pottstown Pike</u> <u>Chester Springs, PA 19425-9516</u>	Facility Address	<u>Bryan Wynd &amp; Kiloran Wynd</u> <u>Upper Uwchlan, PA 19425</u>
Applicant Contact	<u>Matthew Brown</u>	Facility Contact	<u>Brian Norris</u>
Applicant Phone	<u>(610) 646-7015</u>	Facility Phone	<u>(610) 633-8009</u>
Client ID	<u>266603</u>	Site ID	<u>547558</u>
Ch 94 Load Status	<u>Not Overloaded</u>	Municipality	<u>Upper Uwchlan Township</u>
Connection Status	<u>No Limitations</u>	County	<u>Chester</u>
Date Application Received	<u>April 26, 2021</u>	EPA Waived?	<u>No</u>
Date Application Accepted	<u></u>	If No, Reason	<u>, DEP Discretion</u>
Purpose of Application	<u>.</u>		

**Summary of Review**

The permittee applied for renewal of NPDES permit for to discharge treated sewage from St. Andrews Brae STP to Black Horse Creek (HQ-TSF, MF) through Outfall 001.

The facility serves 13 houses in place Sr. Andrews Brae located in Upper Uwchlan TWP.

The treatment plant consists of an influent bar screen and drying deck, aerated flow equalization, extended aeration, clarification, chlorination, tertiary filtration, sludge holding, and phosphorus removal. The facility has been in compliance with the permit terms.

DEP has conducted a sit visit on 09/24/2021. No violations are noted.

The facility discharges to Black Horse Creek that discharge to Marsh Creek, in the drainage area of East Branch Brandywine Creek which listed in Christina River TMDL.

Based on previous permit renewal:

*The Christina River Basin Low Flow TMDL originally approved on January 19, 2001. On August 29, 2012, EPA approved an alternative reduction scenario for Christina River Basin Low Flow TMDL as proposed by DEP. This discharge is listed in the alternative reduction scenario and WLAs are assigned for CBOD5, NH3-N, TN, TP and DO. The existing effluent limitations in the permit are consistent with these WLAs. For TN existing permit has load allocations which is continued in this permit. The current limits were developed by the department in 2001 and were based on maintaining existing water quality and ABAT for a special protection watershed.*

Based on the past DMR data, the facility was able to keep the TN loading below the TMDL assigned loading consistently.

Approve	Deny	Signatures	Date
X		<i>Begay Omuralieva</i> Begay Omuralieva / Environmental Engineering Specialist	November 22, 2021
X		<i>Pravin Patel</i> Pravin C. Patel, P.E. / Environmental Engineer Manager	11/22/2021

**Summary of Review**

No changes to quality and quantity of the discharge, therefore all previously established effluent limits and monitoring requirements are proposed. See p. 6 of this factsheet.

Sludge use and disposal description and location(s): The Route 100 Regional wastewater treatment plant.

Act 14 Notification:

Chester County Commissioners received notification regarding submittal of NPDES permit application renewal on April 15, 2021.

Public Participation

DEP will publish notice of the receipt of the NPDES permit application and a tentative decision to issue the individual NPDES permit in the *Pennsylvania Bulletin* in accordance with 25 Pa. Code § 92a.82. Upon publication in the *Pennsylvania Bulletin*, DEP will accept written comments from interested persons for a 30-day period (which may be extended for one additional 15-day period at DEP's discretion), which will be considered in making a final decision on the application. Any person may request or petition for a public hearing with respect to the application. A public hearing may be held if DEP determines that there is significant public interest in holding a hearing. If a hearing is held, notice of the hearing will be published in the *Pennsylvania Bulletin* at least 30 days prior to the hearing and in at least one newspaper of general circulation within the geographical area of the discharge.

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	<u>001</u>	Design Flow (MGD)	<u>.0036</u>
Latitude	<u>40° 6' 16.48"</u>	Longitude	<u>-75° 42' 27.15"</u>
Quad Name	<u>Downingtown</u>	Quad Code	<u>08-21-3</u>
Wastewater Description: <u>Sewage Effluent</u>			
Receiving Waters	<u>Black Horse Creek (HQ-TSF, MF)</u>	Stream Code	<u>00336</u>
NHD Com ID	<u>26089198</u>	RMI	<u>2.4</u>
Drainage Area	<u>1.514 mi<sup>2</sup></u>	Yield (cfs/mi <sup>2</sup> )	<u></u>
Q <sub>7-10</sub> Flow (cfs)	<u>0.117</u>	Q <sub>7-10</sub> Basis	<u>Previous WQPR</u>
Watershed No.	<u>3-H</u>	Chapter 93 Class.	<u>HQ-TSF, MF</u>
Existing Use	<u></u>	Existing Use Qualifier	<u></u>
Exceptions to Use	<u></u>	Exceptions to Criteria	<u></u>
Assessment Status	<u>Attaining Use(s)</u>		
TMDL Status	<u>Final</u>	Name	<u>Christina River Basin</u>

Changes Since Last Permit Issuance: none

Treatment Facility Summary				
<b>Treatment Facility Name:</b> St Andrews Brae STP				
<b>WQM Permit No.</b>	<b>Issuance Date</b>			
1501422	03/01/2002			
<b>Waste Type</b>	<b>Degree of Treatment</b>	<b>Process Type</b>	<b>Disinfection</b>	<b>Avg Annual Flow (MGD)</b>
Sewage	Tertiary	Extended Aeration with Solids Removal	Hypochlorite	0.0036
<b>Hydraulic Capacity (MGD)</b>	<b>Organic Capacity (lbs/day)</b>	<b>Load Status</b>	<b>Biosolids Treatment</b>	<b>Biosolids Use/Disposal</b>
0.0036	6.1	Not Overloaded	Hauled out	The Route 100 Regional WWTP

Changes Since Last Permit Issuance: none

Compliance History

DMR Data for Outfall 001 (from October 1, 2020 to September 30, 2021)

Parameter	SEP-21	AUG-21	JUL-21	JUN-21	MAY-21	APR-21	MAR-21	FEB-21	JAN-21	DEC-20	NOV-20	OCT-20
Flow (MGD) Average Monthly	0.00134	0.00119	0.00118	0.00188	0.00207	0.00233	0.00252	0.00256	0.00222	0.00235	0.00218	0.00190
Flow (MGD) Daily Maximum	0.0028	0.0018	0.0022	0.0026	0.0026	0.0028	0.0029	0.0030	0.0026	0.0030	0.0029	0.0027
pH (S.U.) Instantaneous Minimum	7.08	7.04	7.13	7.10	7.06	7.04	7.13	7.11	7.00	7.13	7.11	6.96
pH (S.U.) Instantaneous Maximum	7.80	7.33	7.34	7.36	7.36	7.38	7.37	7.37	7.45	7.38	7.45	7.37
DO (mg/L) Instantaneous Minimum	7.0	6.9	6.6	6.8	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
TRC (mg/L) Average Monthly	0.027	0.025	0.023	0.020	0.019	0.023	0.020	0.026	0.022	0.015	0.019	0.018
TRC (mg/L) Instantaneous Maximum	0.07	0.10	0.07	0.04	0.05	0.05	0.05	0.07	0.07	0.06	0.06	0.07
CBOD5 (lbs/day) Average Monthly	< 0.0317	< 0.03	< 0.0217	< 0.0367	< 0.0431	< 0.0417	< 0.0609	< 0.0384	< 0.035	< 0.0325	< 0.033	< 0.028
CBOD5 (lbs/day) Weekly Average	< 0.038	< 0.03	< 0.022	< 0.042	0.063	< 0.043	0.08	< 0.042	< 0.035	< 0.033	< 0.03	< 0.03
CBOD5 (mg/L) Average Monthly	< 2	< 2	< 2	< 2	< 2.45	< 2	< 3	< 2	< 2	< 2	< 2	< 2
CBOD5 (mg/L) Weekly Average	< 2	< 2	< 2	< 2	2.9	< 2	4	< 2	< 2	< 2	< 2	< 2
BOD5 (lbs/day) Raw Sewage Influent   Average Monthly	1.47	0.89	2.02	1.87	6.87	1.78	3.42	2.65	1.91	2.17	279	3.61
BOD5 (mg/L) Raw Sewage Influent   Average Monthly	77	107	186	118	317	82	164	127	109	130	167	228
TSS (lbs/day) Average Monthly	< 0.022	< 0.03	< 0.011	< 0.018	0.088	0.084	< 0.02	< 0.165	0.035	< 0.041	< 0.025	< 0.014

**NPDES Permit Fact Sheet  
St Andrews Brae STP**

**NPDES Permit No. PA0058378**

TSS (lbs/day) Raw Sewage Influent   Average Monthly	1.99	0.57	1.45	0.78	4.34	1.37	2.34	2.88	2.24	0.63	3.89	2.19
TSS (lbs/day) Weekly Average	0.025	0.045	0.011	0.021	0.152	0.108	< 0.021	0.313	0.035	0.067	0.033	0.016
TSS (mg/L) Average Monthly	< 1.5	< 2	< 1	< 1	4.5	4	< 1	< 8	2	< 2.5	< 1.5	< 1
TSS (mg/L) Raw Sewage Influent   Average Monthly	104	68	134	49	200	63	112	138	128	38	233	138
TSS (mg/L) Weekly Average	2	3	1	1	7	5	< 1	15	2	4	2	1
Fecal Coliform (No./100 ml) Geometric Mean	< 4	< 2	< 3.2	< 2	< 2	< 2	< 2.4	< 2	< 2.4	11.4	< 2	< 13.4
Fecal Coliform (No./100 ml) Instantaneous Maximum	8	< 2	5	< 2	< 2	< 2	3	< 2	3	13	< 2	90
Total Nitrogen (lbs/day) Average Monthly	0.193	0.43	< 0.086	< 0.154	0.259	0.612	< 0.083	0.4	< 0.16	0.515	0.138	0.413
Total Nitrogen (mg/L) Average Monthly	10.05	28.63	< 10.26	< 9.75	11.93	28.24	< 4.06	19.18	< 9.14	30.87	8.26	35.41
Ammonia (lbs/day) Average Monthly	< 0.002	< 0.0045	< 0.0083	< 0.002	< 0.0017	< 0.0073	< 0.0021	< 0.0019	< 0.0028	< 0.0016	< 0.0017	< 0.0014
Ammonia (mg/L) Average Monthly	< 0.135	< 0.3	< 0.765	< 0.11	< 0.1	< 0.36	< 0.105	< 0.1	< 0.16	< 0.1	< 0.1	< 0.1
Total Phosphorus (lbs/day) Average Monthly	0.0066	0.0043	0.0084	0.0063	0.014	< 0.0048	0.0041	0.0306	0.0114	0.0041	0.0137	0.0092
Total Phosphorus (mg/L) Average Monthly	0.46	0.285	0.783	0.36	0.66	< 0.225	0.2	1.485	0.65	0.25	0.82	0.71

**Proposed Effluent Limitations and Monitoring Requirements**

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the "NPDES Permit Writer's Manual" (362-0400-001), SOPs and/or BPJ.

**Outfall 001, Effective Period: Permit Effective Date through Permit Expiration Date.**

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) <sup>(1)</sup>		Concentrations (mg/L)				Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type
	Average Monthly	Weekly Average	Minimum	Average Monthly	Weekly Average	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	Continuous	Metered
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/day	Grab
DO	XXX	XXX	6.0 Inst Min	XXX	XXX	XXX	1/day	Grab
TRC	XXX	XXX	XXX	0.5	XXX	1.2	1/day	Grab
CBOD5 Nov 1 - Apr 30	0.60	0.90	XXX	20	30	40	2/month	Grab
CBOD5 May 1 - Oct 31	0.30	0.45	XXX	10	15	20	2/month	Grab
BOD5 Raw Sewage Influent	Report	XXX	XXX	Report	XXX	XXX	1/month	Grab
TSS Raw Sewage Influent	Report	XXX	XXX	Report	XXX	XXX	1/month	Grab
TSS	0.30	0.45	XXX	10	15	20	2/month	Grab
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	2/month	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	2/month	Grab

Outfall001 , Continued (from Permit Effective Date through Permit Expiration Date)

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) <sup>(1)</sup>		Concentrations (mg/L)				Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type
	Average Monthly	Weekly Average	Minimum	Average Monthly	Weekly Average	Instant. Maximum		
Total Nitrogen	0.9	XXX	XXX	Report	XXX	XXX	1/month	Grab
Ammonia Nov 1 - Apr 30	0.14	XXX	XXX	4.5	XXX	9	2/month	Grab
Ammonia May 1 - Oct 31	0.05	XXX	XXX	1.5	XXX	3	2/month	Grab
Total Phosphorus Nov 1 - Mar 31	0.06	XXX	XXX	2.0	XXX	4	2/month	Grab
Total Phosphorus Apr 1 - Oct 31	0.03	XXX	XXX	1.0	XXX	2	2/month	Grab

Compliance Sampling Location:

Other Comments: