

Application Type Renewal
 Facility Type Non-Municipal
 Major / Minor Minor

**NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE**

Application No. PA0044474
 APS ID 1011718
 Authorization ID 1306128

Applicant and Facility Information

Applicant Name	<u>Brinton Manor Rehab And Nursing Center LLC</u>	Facility Name	<u>Brinton Manor STP</u>
Applicant Address	<u>549 Baltimore Pike Glen Mills, PA 19342-1020</u>	Facility Address	<u>549 Baltimore Pike Glen Mills, PA 19342-1020</u>
Applicant Contact	<u>Nigel Hevener</u>	Facility Contact	<u>Nigel Hevener</u>
Applicant Phone	<u>(610) 358-6005</u>	Facility Phone	<u>(610) 358-6005</u>
Client ID	<u>42677</u>	Site ID	<u>197725</u>
Ch 94 Load Status	<u>Not Overloaded</u>	Municipality	<u>Concord Township</u>
Connection Status		County	<u>Delaware</u>
Date Application Received	<u>February 3, 2020</u>	EPA Waived?	<u>Yes</u>
Date Application Accepted		If No, Reason	
Purpose of Application	<u>Permit Renewal.</u>		

Summary of Review

The applicant requests approval for renewal of an NPDES permit to discharge 13,000 gpd of treated sewage from Brinton Manor STP to West Branch Chester Creek. The receiving stream is classified as TSF/MF.

The sewage treatment plant consists of a bar screen, comminutor, aeration tank, clarifier, sand filter, chlorine contact tank, and sludge holding tank. The treatment plant is permitted under WQM Permit No. 2371408.

Based on the DMRs review and operations section comments, there were few effluent limit violations in the last permit term. According to the permittee and the consultant those were due to operational issues, suspected sample contamination and issue with the chemical feed pump. Those were already resolved and currently the facility is in compliance.

Because there are no changes in flow, treatment units, stream designation, influent characteristics, effluent quality, the current permit limits will be carried over to the new permit as follows:

Parameter	Average Monthly Limits (mg/l)	Basis
CBOD5	25	Ch.92a.47/ previous WQM Model
Total Suspended Solids	30	Ch.92a.47/DRBC
NH3 as N (5-1 to 10-31)	10	Previous WQM Model
NH3 as N (11-1 to 4-30)	20	Previous WQM Model
Phosphorus (5-1 to 10-31)	1.0	BPJ
Phosphorus (11-1 to 4-30)	2.0	BPJ
Dissolved Oxygen	4.0	BPJ/SOP
Total Residual Chlorine	0.5	Ch.92a.48 / BAT

Approve	Deny	Signatures	Date
X		<i>Sara Abraham</i> Sara Reji Abraham, E.I.T. / Project Manager	04-13-2020
X		<i>Pravin Patel</i> Pravin C. Patel, P.E. / Environmental Engineer Manager/	04/13/2020

Summary of Review

Fecal Coliform (CFU/100ml)	200 Geo. Mean	92a.47/Ch.93
pH	6.0 – 9.0 SU at all times	92a.47/Ch.93
Total Nitrogen	Report	SOP/data collection

Anti-Backsliding

N/A

Act 14 Notifications:

- Concord Township - January 10, 2020
- Delaware County - January 10, 2020

Permit Conditions:

- A. No Stormwater
- B. Acquire Necessary Property Rights
- C. Proper Sludge Disposal
- D. Abandon STP when Municipal Sewers Available
- E. Chlorine Optimization
- F. Operator Notification
- G. Solids Management

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.

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Discharge, Receiving Waters and Water Supply Information			
Outfall No.	<u>001</u>	Design Flow (MGD)	<u>.013</u>
Latitude	<u>39° 53' 21.34"</u>	Longitude	<u>-75° 30' 41.10"</u>
Quad Name	<u>West Chester</u>	Quad Code	<u>1941</u>
Wastewater Description: <u>Sewage Effluent</u>			
Receiving Waters	<u>West Branch Chester Creek (TSF, MF)</u>	Stream Code	<u>00542</u>
NHD Com ID	<u>25621448</u>	RMI	<u>5.9</u>
Drainage Area	<u>4.74 sq.mi.</u>		
Q7-10 Flow (cfs)	<u>0.854</u>	Q7-10 Basis	<u>Previous record</u>
Watershed No.	<u>3-G</u>	Chapter 93 Class.	<u>TSF, MF</u>
Assessment Status	<u>Impaired</u>		
Cause(s) of Impairment	<u>CAUSE UNKNOWN, FLOW REGIME MODIFICATION, HABITAT ALTERATIONS, SILTATION</u>		
Source(s) of Impairment	<u>HABITAT MODIFICATION - OTHER THAN HYDROMODIFICATION, URBAN RUNOFF/STORM SEWERS</u>		

Treatment Facility Summary				
Treatment Facility Name: Brinton Manor STP				
Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Tertiary	Extended Aeration With Solids Removal	Hypochlorite	0.013
Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.013		Not Overloaded		

Compliance History

DMR Data for Outfall 001 (from March 1, 2019 to February 29, 2020)

Parameter	FEB-20	JAN-20	DEC-19	NOV-19	OCT-19	SEP-19	AUG-19	JUL-19	JUN-19	MAY-19	APR-19	MAR-19
Flow (MGD) Average Monthly	0.0022	0.0007	0.0005	0.0009	0.0009	0.0013	0.0049	0.0062	0.0052	0.0047	0.0046	0.0036
Flow (MGD) Daily Maximum	0.0037	0.0033	0.0018	0.0015	0.0017	0.0052	0.0069	0.0078	0.0105	0.0067	0.0085	0.0069
pH (S.U.) Instantaneous Minimum	7.0	7.0	6.5	6.9	6.4	6.9	6.8	6.2	6.9	6.6	7.1	7.3
pH (S.U.) Instantaneous Maximum	7.8	7.7	7.6	7.5	7.7	7.6	7.5	7.3	7.3	7.9	7.6	7.8
DO (mg/L) Instantaneous Minimum	5.1	4.3	4.2	5.9	4.3	5.2	5.3	4.0	4.8	5.7	5.5	5.4
TRC (mg/L) Average Monthly	0.4	0.1	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.4	0.4	0.4
TRC (mg/L) Instantaneous Maximum	0.8	0.3	0.7	0.4	0.5	0.4	0.4	0.8	0.5	0.6	0.5	0.5
CBOD5 (lbs/day) Average Monthly	0.04	< 0.006	0.02	< 0.02	< 0.06	< 0.02	< 0.09	< 0.08	< 0.10	< 0.09	0.20	0.04
CBOD5 (mg/L) Average Monthly	3	< 4.9	3	2	< 5	< 3	< 2	< 2	3	< 2	4	3
TSS (lbs/day) Average Monthly	< 0.07	< 0.007	0.02	< 0.04	0.07	< 0.03	< 0.20	< 0.20	0.60	< 0.20	2.04	0.10
TSS (mg/L) Average Monthly	< 4	< 4	5	< 5	6	< 4	< 4	< 4	13	< 4	33	7
Fecal Coliform (CFU/100 ml) Geometric Mean	179	< 2	< 12	2	> 13	> 141	< 14	< 1	4	62	24	< 2
Fecal Coliform (CFU/100 ml) Instantaneous Maximum	2000	4	228	6	> 20000	> 20000	208	< 1	10	550	300	3
Total Nitrogen (mg/L) Average Monthly	< 20.94	< 19.28	6.55	< 15.03	18.7	< 18.23	< 19.55	< 18.13	< 11.77	< 21.49	< 23.79	< 19.37

**NPDES Permit Fact Sheet
Brinton Manor STP**

NPDES Permit No. PA0044474

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Ammonia (lbs/day) Average Monthly	0.004	0.0003	0.004	0.0009	0.02	0.02	0.03	0.01	0.02	< 0.004	< 0.01	< 0.003
Ammonia (mg/L) Average Monthly	0.2	0.2	5	< 0.1	2	3	1	0.2	1	< 0.1	< 0.2	< 0.2
Total Phosphorus (lbs/day) Average Monthly	0.003	0.0004	0.002	0.002	0.01	0.002	0.01	0.04	0.02	0.02	0.09	0.004
Total Phosphorus (mg/L) Average Monthly	0.2	0.2	0.3	0.2	0.5	0.2	0.2	0.8	0.5	0.6	1.9	0.3

Compliance History

Effluent Violations for Outfall 001, from: April 1, 2019 to: February 29, 2020

Parameter	Date	SBC	DMR Value	Units	Limit Value	Units
TSS	04/30/19	Avg Mo	33	mg/L	30	mg/L
Fecal Coliform	10/31/19	IMAX	> 20000	CFU/100 ml	1000	CFU/100 ml
Fecal Coliform	02/29/20	IMAX	2000	CFU/100 ml	1000	CFU/100 ml
Fecal Coliform	09/30/19	IMAX	> 20000	CFU/100 ml	1000	CFU/100 ml

Proposed Effluent Limitations and Monitoring Requirements

Outfall 001, Effective Period: 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	Average Weekly	Minimum	Average Monthly	Maximum	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	4.0 Inst Min	XXX	XXX	XXX	1/day	Grab
TRC	XXX	XXX	XXX	0.5	XXX	1.2	1/day	Grab
CBOD5	2.71	XXX	XXX	25	XXX	50	2/month	24-Hr Composite
TSS	3.25	XXX	XXX	30	XXX	60	2/month	24-Hr Composite
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
Total Nitrogen	XXX	XXX	XXX	Report	XXX	XXX	2/month	24-Hr Composite
Ammonia Nov 1 - Apr 30	2.1	XXX	XXX	20	XXX	40	2/month	24-Hr Composite
Ammonia May 1 - Oct 31	1.0	XXX	XXX	10	XXX	20	2/month	24-Hr Composite
Total Phosphorus Nov 1 - Apr 30	0.21	XXX	XXX	2.0	XXX	4	2/month	24-Hr Composite
Total Phosphorus May 1 - Oct 31	0.10	XXX	XXX	1.0	XXX	2	2/month	24-Hr Composite