

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

**NPDES PERMIT FACT SHEET  
INDIVIDUAL SEWAGE**

Application No. PA0052434  
 APS ID 1107006  
 Authorization ID 1472349

**Applicant and Facility Information**

Applicant Name	<u>Coventry Crossing Apartments STP</u>	Facility Name	<u>Coventry Crossing Apartments STP</u>
Applicant Address	<u>3843 West Chester Pike</u> <u>Newtown Square, PA 19073-2304</u>	Facility Address	<u>512 Coventry Lane</u> <u>Glen Mills, PA 19342-9412</u>
Applicant Contact	<u>Andrew Holloway</u>	Facility Contact	<u>Mike Bostic</u>
Applicant Phone	<u>(484) 427-2232</u>	Facility Phone	<u>(610) 444-3551</u>
Client ID	<u>381289</u>	Site ID	<u>458534</u>
Ch 94 Load Status	<u>Not Overloaded</u>	Municipality	<u>Chester Heights Borough</u>
Connection Status		County	<u>Delaware</u>
Date Application Received	<u>December 29, 2023</u>	EPA Waived?	<u>Yes</u>
Date Application Accepted		If No, Reason	
Purpose of Application	<u>.</u>		

**Summary of Review**

The applicant requests approval for the renewal of an NPDES permit to discharge 40,000 gpd of treated sewage from Coventry Crossing Apartments STP.

The STP consists of three equalization tanks, six aeration tanks, two clarifiers, two sand filters, one chlorine contact tank and one sludge holding tank.

Based on the review of the DMRs the discharge is in compliance with the existing permit limits most of the time. There are no changes in the treatment system, influent quality, stream designation etc. The proposed effluent limits for the new permit are similar to the existing limits.

Act 14 Notifications:

Chester Heights Borough - April 5, 2024  
 Delaware County - April 5, 2024

WQM model was run to verify the limits and there is no change.



WQM 7.0 Coventry  
Crossing.pdf

Approve	Deny	Signatures	Date
X		<i>Charley Yang</i> Charley Yang / Environmental Engineering Specialist	May 29, 2024
X		<i>Pravin Patel</i> Pravin C. Patel, P.E. / Environmental Engineer Manager	05/30/2024

Summary of Review

Permit Conditions:

- A. No Stormwater
- B. Necessary Property Rights
- C. Proper Sludge Disposal
- D. Abandon STP when Municipal Sewers Available
- E. Chlorine Minimization
- F. Small Stream Discharge
- G. Operator Notification
- H. Fecal Coliform Reporting

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>.04</u>
Latitude	<u>39° 53' 36.71"</u>	Longitude	<u>-75° 28' 47.88"</u>
Quad Name	<u>Media</u>	Quad Code	<u>1942</u>
Wastewater Description: <u>Sewage Effluent</u>			
Receiving Waters	<u>Unnamed Tributary of West Branch Chester Creek (TSF, MF)</u>	Stream Code	<u>00557</u>
NHD Com ID	<u>25606202</u>	RMI	<u>0.69</u>
Drainage Area	<u>0.05</u>	Yield (cfs/mi <sup>2</sup> )	<u></u>
Q <sub>7-10</sub> Flow (cfs)	<u>0.0286</u>	Q <sub>7-10</sub> Basis	<u>Streamstats</u>
Elevation (ft)	<u>268.75</u>	Slope (ft/ft)	<u></u>
Watershed No.	<u>3-G</u>	Chapter 93 Class.	<u>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>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, URBAN RUNOFF/STORM SEWERS, URBAN RUNOFF/STORM SEWERS</u>		
TMDL Status	<u></u>	Name	<u></u>

Changes Since Last Permit Issuance: RMI, Drainage Area, elevation were updated

Other Comments:

Treatment Facility Summary				
<b>Treatment Facility Name:</b> Coventry Crossing Apartments STP				
<b>WQM Permit No.</b>		<b>Issuance Date</b>		
2398404		09/21/1998		
<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	Gas Chlorine	0.04
<b>Hydraulic Capacity (MGD)</b>	<b>Organic Capacity (lbs/day)</b>	<b>Load Status</b>	<b>Biosolids Treatment</b>	<b>Biosolids Use/Disposal</b>
0.04		Not Overloaded		

Changes Since Last Permit Issuance: None

Other Comments:

Compliance History	
Summary of DMRs:	[REDACTED]
Summary of Inspections:	[REDACTED]

Other Comments: [REDACTED]

Compliance History

DMR Data for Outfall 001 (from April 1, 2023 to March 31, 2024)

Parameter	MAR-24	FEB-24	JAN-24	DEC-23	NOV-23	OCT-23	SEP-23	AUG-23	JUL-23	JUN-23	MAY-23	APR-23
Flow (MGD) Average Monthly	0.02194 2	0.0256	0.03055 3	0.02341 4	0.02007	0.02200 7	0.02149	0.0198	0.01901 4	0.01828	0.0211	0.02490 1
Flow (MGD) Daily Maximum	0.03003 4	0.0256	0.04379 5	0.03950 9	0.02973	0.02885 2	0.04107	0.0337	0.02381 3	0.02458	0.0293	0.03265 1
pH (S.U.) Instantaneous Minimum	7.46	7.26	7.33	7.29	7.45	7.23	7.09	7.08	6.84	6.98	7.05	6.99
pH (S.U.) Instantaneous Maximum	8.67	8.22	8.23	8.51	8.47	8.24	8.41	8.29	7.66	7.84	7.62	8.45
DO (mg/L) Instantaneous Minimum	8.29	8.67	8.22	7.55	7.51	6.57	6.19	6.18	6.13	6.06	6.85	7.01
TRC (mg/L) Average Monthly	0.0345	0.03	0.04	0.03	0.01	0.03	0.03	0.02	0.02	0.02	0.03	0.03
TRC (mg/L) Instantaneous Maximum	0.09	0.09	0.07	0.07	0.08	0.10	0.10	0.09	0.05	0.10	0.10	0.10
CBOD5 (lbs/day) Average Monthly	1.06	0.64	1.401	0.586	0.87	0.71	0.9	0.94	0.76	0.6	0.64	0.75
CBOD5 (mg/L) Average Monthly	< 5.8	< 3.0	< 5.5	< 3	5.2	3.85	5.1	5.7	4.8	3.95	3.65	3.6
TSS (lbs/day) Average Monthly	0.91	1.07	1.529	0.976	< 0.42	< 0.37	1.3	0.6	0.32	< 0.4	< 0.26	< 0.21
TSS (mg/L) Average Monthly	< 5.0	< 5.0	< 6.0	< 5	< 2.5	< 2	7.5	3.5	2	< 2.5	< 1.5	< 1
Fecal Coliform (No./100 ml) Geometric Mean	< 1	< 1	< 1	< 6.64	74.5	7.42	< 32	< 13	< 4.47	475	< 4.5	< 2.5
Fecal Coliform (No./100 ml) Instantaneous Maximum	< 1	< 1	< 1	44.1	370	11	500	82	10	490	10	3
Total Nitrogen (mg/L) Average Monthly	< 18.3	< 23.65	< 22.15	21.56	17.92	< 15.70	16.32	18.63	< 4.61	6.48	0.98	10.69
Ammonia (lbs/day) Average Monthly	0.018	0.021	0.157	0.04	< 0.005	0.008	< 0.005	< 0.05	0.005	0.2	0.03	0.30

**NPDES Permit Fact Sheet  
Coventry Crossing Apartments STP**

**NPDES Permit No. PA0052434**

Ammonia (mg/L) Average Monthly	< 0.10	< 0.1	0.615	< 0.21	< 0.03	0.045	< 0.03	< 0.3	0.03	1.1	0.14	1.42
Total Phosphorus (lbs/day) Average Monthly	0.078	0.05	0.124	0.055	0.12	0.116	0.12	0.09	0.04	0.17	0.36	0.41
Total Phosphorus (mg/L) Average Monthly	0.425	0.22	0.485	0.28	0.7	0.63	0.69	0.57	0.25	1.11	2.02	1.96

**Compliance History**

**Effluent Violations for Outfall 001, from: May 1, 2023 To: March 31, 2024**

Parameter	Date	SBC	DMR Value	Units	Limit Value	Units
Fecal Coliform	06/30/23	Geo Mean	475	No./100 ml	200	No./100 ml
Total Phosphorus	05/31/23	Avg Mo	0.36	lbs/day	.3	lbs/day
Total Phosphorus	05/31/23	Avg Mo	0.36	lbs/day	.3	lbs/day
Total Phosphorus	05/31/23	Avg Mo	2.02	mg/L	1.0	mg/L
Total Phosphorus	05/31/23	Avg Mo	2.02	mg/L	1.0	mg/L
Total Phosphorus	06/30/23	Avg Mo	1.11	mg/L	1.0	mg/L

Summary of Inspections:

Other Comments:

**Development of Effluent Limitations**

Outfall No. 001 Design Flow (MGD) .04  
 Latitude 39° 53' 36.63" Longitude -75° 28' 47.99"  
 Wastewater Description: Sewage Effluent

**Technology-Based Limitations**

The following technology-based limitations apply, subject to water quality analysis and BPJ where applicable:

Pollutant	Limit (mg/l)	SBC	Federal Regulation	State Regulation
CBOD <sub>5</sub>	25	Average Monthly	133.102(a)(4)(i)	92a.47(a)(1)
	40	Average Weekly	133.102(a)(4)(ii)	92a.47(a)(2)
Total Suspended Solids	30	Average Monthly	133.102(b)(1)	92a.47(a)(1)
	45	Average Weekly	133.102(b)(2)	92a.47(a)(2)
pH	6.0 – 9.0 S.U.	Min – Max	133.102(c)	95.2(1)
Fecal Coliform (5/1 – 9/30)	200 / 100 ml	Geo Mean	-	92a.47(a)(4)
Fecal Coliform (5/1 – 9/30)	1,000 / 100 ml	IMAX	-	92a.47(a)(4)
Fecal Coliform (10/1 – 4/30)	2,000 / 100 ml	Geo Mean	-	92a.47(a)(5)
Fecal Coliform (10/1 – 4/30)	10,000 / 100 ml	IMAX	-	92a.47(a)(5)
Total Residual Chlorine	0.5	Average Monthly	-	92a.48(b)(2)

Comments:  

**Water Quality-Based Limitations**

A "Reasonable Potential Analysis" (Attachment  ) determined the following parameters were candidates for limitations:  

The following limitations were determined through water quality modeling (output files attached):

Parameter	Limit (mg/l)	SBC	Model
CBOD <sub>5</sub> (05-01 to 10-31)	10	Ave. Monthly	Dry stream guidance
CBOD <sub>5</sub> (11-01 to 04-30)	20	Ave. Monthly	Seasonal limit
TSS	10	Ave. Monthly	Dry Stream guidance
NH <sub>3</sub> -N (05-01 to 10-31)	1.7	Ave. Monthly	Previous calculation /WQM 7.0
NH <sub>3</sub> -N (11-01 to 04-30)	5.1	Ave. Monthly	Seasonal limit
Dissolved Oxygen	6.0	Inst.Min.	WQM 7.0
pH	6.0 to 9.0 std. at all times	Chapter 93	
Fecal Coliform	200/1000 (#/100ml)	Ave.Monthly/Inst.Max.	Chapter 92 & DRBC
TRC	0.04	Ave. Monthly	Previous calculation
Phosphorus, total (05-01 to 10-31)	1.0	Ave. Monthly	BPJ
Phosphorus, total (11-01 to 04-31)	2.0	Ave. Monthly	Seasonal limit
Nitrogen, Total	Monitor		Data Collection

Comments:



**Best Professional Judgment (BPJ) Limitations**

Comments:  

**Anti-Backsliding**

N/A

**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” (386-0400-001), 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	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	6.0 Inst Min	XXX	XXX	XXX	1/day	Grab
TRC	XXX	XXX	XXX	0.04	XXX	0.1	1/day	Grab
CBOD5 Nov 1 - Apr 30	6.7	XXX	XXX	20	XXX	40	2/month	24-Hr Composite
CBOD5 May 1 - Oct 31	3.3	XXX	XXX	10	XXX	20	2/month	24-Hr Composite
TSS	3.3	XXX	XXX	10	XXX	20	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	1/month	24-Hr Composite
Ammonia Nov 1 - Apr 30	1.7	XXX	XXX	5.1	XXX	10.2	2/month	24-Hr Composite
Ammonia May 1 - Oct 31	0.6	XXX	XXX	1.7	XXX	3.4	2/month	24-Hr Composite
Total Phosphorus Nov 1 - Apr 30	0.7	XXX	XXX	2.0	XXX	4	2/month	24-Hr Composite

Outfall 001 , 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	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Total Phosphorus May 1 - Oct 31	0.3	XXX	XXX	1.0	XXX	2	2/month	24-Hr Composite

Compliance Sampling Location:

Other Comments: