

Application Type Renewal  
Facility Type Municipal  
Major / Minor Minor

## NPDES PERMIT FACT SHEET INDIVIDUAL SEWAGE

Application No. PA0021741  
APS ID 1112599  
Authorization ID 1482426

### Applicant and Facility Information

Applicant Name <u>Borough Of Dublin</u>	Facility Name <u>Dublin Borough STP</u>
Applicant Address <u>119 Maple Avenue</u> <u>Dublin, PA 18917-2403</u>	Facility Address <u>517 Stonebridge Road</u> <u>Bedminster, PA 18910</u>
Applicant Contact <u>Colleen Pursell</u>	Facility Contact <u>John Scully</u>
Applicant Phone <u>(215) 249-3310</u>	Facility Phone <u>(215) 795-2626</u>
Client ID <u>65007</u>	Site ID <u>239886</u>
Ch 94 Load Status <u>Projected Hydraulic Overload</u>	Municipality <u>Bedminster Township</u>
Connection Status <u>Dept. Imposed Connection Prohibitions</u>	County <u>Bucks</u>
Date Application Received <u>April 29, 2024</u>	EPA Waived? <u>Yes</u>
Date Application Accepted _____	If No, Reason _____
Purpose of Application <u>.</u>	

### Summary of Review

The renewal application for Dublin Borough Water Authority has been received.

Dublin Borough STP consists of a pump station, equalization pond, comminutor & splitter box, 2 aeration tanks, 2 clarifiers, 4 dual media filters, and 2 chlorine contact tanks.

Per the approved amendment from July of 2023, the treatment plant's hydraulic design capacity stays as 0.75 MGD which was rerated during the previous amendment from 0.5 MGD.

There is no change in the monitoring limits. The previous approval included two tiers for Total Phosphorous. The proposed limit of 6.2 lbs/day is being carried over to this renewal.

Act 14 notification were sent to Township and County on March 25, 2024.

No violation was noted during the inspection on December 15, 2023.

In addition, the permit contains the following major special conditions:

- No Stormwater in Sewers
- Obtain Necessary Property Rights
- Proper Sludge Disposal
- Chlorine Minimization
- Small Stream Discharge
- Notification of Designated Operator

Approve	Deny	Signatures	Date
X		<i>Charley Yang</i> Charley Yang / Environmental Engineering Specialist	October 30, 2024
X		<i>Pravin Patel</i> Pravin C. Patel, P.E. / Environmental Engineer Manager	10/31/2024

**Summary of Review**

Sludge use and disposal description and location(s):

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.	001	Design Flow (MGD)	.75
Latitude	40° 23' 32.37"	Longitude	-75° 11' 24.00"
Quad Name		Quad Code	
Wastewater Description:		Sewage Effluent	
Receiving Waters	Deep Run (WWF, MF)	Stream Code	03125
NHD Com ID	26030746	RMI	5.1
Drainage Area	3.54	Yield (cfs/mi²)	
Q <sub>7-10</sub> Flow (cfs)	0.0251	Q <sub>7-10</sub> Basis	Previous renewal
Elevation (ft)	424.25	Slope (ft/ft)	
Watershed No.	2-D	Chapter 93 Class.	WWF, MF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	NUTRIENTS, SILTATION		
Source(s) of Impairment	MUNICIPAL POINT SOURCE DISCHARGES, REMOVAL OF RIPARIAN VEGETATION		
TMDL Status		Name	

Changes Since Last Permit Issuance: None

Other Comments:

Compliance History	
Summary of DMRs:	TP seems to be under control. All the reported limits are in compliance with the permit.
Summary of Inspections:	Overall, the site seems to be in good condition. There were two wet weather SSOs that occurred on 12/11/23.

Other Comments: 

Compliance History

DMR Data for Outfall 001 (from September 1, 2023 to August 31, 2024)

Parameter	AUG-24	JUL-24	JUN-24	MAY-24	APR-24	MAR-24	FEB-24	JAN-24	DEC-23	NOV-23	OCT-23	SEP-23
Flow (MGD) Average Monthly	0.18425 81	0.12312 9	0.19086 67	0.1976	0.3441	0.50658 4	0.50175 86	0.68612 9	0.66509	0.14436 67	0.13161 29	0.39473 33
Flow (MGD) Weekly Average	0.26042 86	0.152	0.28457 14	0.2933	0.71	0.76	0.6166	0.89871 43	0.975	0.2792	0.18457 14	0.68428 57
pH (S.U.) Instantaneous Minimum	7.51	7.29	7.56	7.45	7.49	7.72	7.68	7.52	7.81	7.61	7.77	7.54
pH (S.U.) Instantaneous Maximum	7.87	8.09	7.81	7.83	7.97	7.99	7.96	8.1	8.11	8.17	8.07	8.11
DO (mg/L) Minimum	6.92	7.01	7.6	7.75	8.67	9.7	9.85	10.0	10.37	9.31	8.9	8.05
TRC (mg/L) Average Monthly	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
TRC (mg/L) Instantaneous Maximum	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
CBOD5 (lbs/day) Average Monthly	5	< 4	< 6	< 5	< 9.0	17.0	25.0	27.0	< 17.0	3.0	< 2	< 6
CBOD5 (lbs/day) Raw Sewage Influent   Average Monthly	247	213	247	288	< 311	333	547	918	1141	290	275	463
CBOD5 (lbs/day) Weekly Average	8	8	11	< 6	24.0	22.0	47.0	47.0	21.0	6.0	< 4	< 9
CBOD5 (mg/L) Average Monthly	4.0	< 3.0	< 4.0	< 3.0	< 2.0	5.0	5.0	4.0	< 3.0	3.0	< 2.0	< 2.0
CBOD5 (mg/L) Raw Sewage Influent   Average Monthly	194	170	126	181.3	< 150.9	103.1	118	146	184	249	313	189
CBOD5 (mg/L) Weekly Average	5.0	5.0	6.0	4.0	3.0	5.7	8.0	6.0	4.0	4.0	3.0	< 2.0
BOD5 (lbs/day) Raw Sewage Influent   Average Monthly	255	230	252	351	432	433	634	904	1571	366	334	513

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BOD5 (mg/L) Raw Sewage Influent   Average Monthly	214	185	122	226	203.6	144.8	137.8	147	242	318	393	202
TSS (lbs/day) Average Monthly	12	9	28	13	50.0	38.0	64.0	100	68.0	14	8.0	< 9
TSS (lbs/day) Raw Sewage Influent   Average Monthly	189	215	242	297	412	639	564	1150	1353	229	303	637
TSS (lbs/day) Weekly Average	23	17	72	22	147	79.0	92.0	168	96.0	42	15.0	28
TSS (mg/L) Average Monthly	10.0	7.0	12.0	7.0	12.0	9.0	13.0	16.0	12.0	10.0	8.0	< 4.0
TSS (mg/L) Raw Sewage Influent   Average Monthly	164	169	104	197	189	185	124	180	214	210	327	248
TSS (mg/L) Weekly Average	20.0	10.0	17.0	11.0	18.0	15.0	16.0	21.0	17.0	17.0	15.0	11.0
Fecal Coliform (No./100 ml) Geometric Mean	117	56	< 2	< 10	< 9	10	10	10	27	< 9	35	30
Fecal Coliform (No./100 ml) Instantaneous Maximum	420	390	260	56	44	23	18	43	88	251	370	96
Total Nitrogen (lbs/day) Average Monthly	< 29	< 34	< 49	< 45	< 35	< 48	< 71	< 81	< 86	< 27	< 23	< 51
Total Nitrogen (mg/L) Average Monthly	< 24.6	< 28.8	< 23.7	< 25.1	< 15.14	< 14.02	< 15.81	< 13.39	< 13.17	< 25.93	< 24.24	< 22.51
Ammonia (lbs/day) Average Monthly	0.2	0.08	0.2	0.1	0.1	< 0.1	< 0.2	< 0.5	< 0.2	0.04	< 0.03	< 0.09
Ammonia (mg/L) Average Monthly	0.1	0.1	0.1	0.1	0.04	< 0.04	< 0.04	< 0.1	< 0.03	0.04	< 0.02	< 0.03
Total Phosphorus (lbs/day) Average Monthly	1.70	1.50	3.50	2.30	2.90	3.20	4.00	5.50	4.00	1.10	1.20	2.30
Total Phosphorus (mg/L) Average Monthly	1.4	1.3	1.6	1.1	1.1	0.9	0.9	0.9	0.6	0.9	1.1	0.8
Total Copper (mg/L) Average Monthly	0.011	0.011	0.016	0.015	0.012	0.015	0.013	0.011	0.018	0.014	0.014	0.017

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Total Copper (mg/L) Daily Maximum	0.011	0.011	0.016	0.015	0.012	0.015	0.013	0.011	0.018	0.014	0.014	0.017
Total Hardness (mg/L) Average Monthly	247	212	203	232	94.6	153	193	148	153	209	188	252

**Compliance History**

**Effluent Violations for Outfall 001, from: October 1, 2023 To: August 31, 2024**

Parameter	Date	SBC	DMR Value	Units	Limit Value	Units
Total Copper	12/31/23	Avg Mo	0.018	mg/L	.017	mg/L

Summary of Inspections:  

Other Comments:

**Development of Effluent Limitations**

Outfall No. 001  
Latitude 40° 23' 32.09"  
Wastewater Description: Sewage Effluent

Design Flow (MGD) .5  
Longitude -75° 11' 24.30"

**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)

**Water Quality-Based Limitations**

Copper

Copper limit is carried over from the previous approval.

Parameter	Maximum Concentration in Application	Most Stringent Criterion (ug/l)	WQBEL (ug/l) Limit from Pentox	Comments
Copper	9.0	9.3	16.74	Establish Limits

During the previous renewal, a "Reasonable Potential Analysis" was performed and Copper was determined as candidate for limitations. Based on the PENTOX modeling and Toxic screening analysis results, it was determined that the average monthly limit for dissolved copper is 16.75 ug/l, and the maximum daily limit is 26.13 ug/l.

CBOD<sub>5</sub>

CBOD<sub>5</sub> limits are carried over from previous permits. CBOD<sub>5</sub> limits are also confirmed by recent WQM computer model run.

NH<sub>3</sub>-N

Current NH<sub>3</sub>-N limits were first included in permit issued in 1986. NH<sub>3</sub>-N limits are also confirmed by recent WQM model run.

Dissolved Oxygen

The permit limit for D.O. is 6 mg/l (min.). since the facility is consistently meeting the D.O. limit, the existing limit is carried over.



Phosphorus

The current phosphorus limit was first included in the 1986 permit. A stream assessment conducted in 2001 listed Deep Run segment as impaired due to nutrients. Therefore, the Total Phosphorous is re-evaluated and the limit is reduced to 1.0 mg/L, in-order to be consistent with discharge limits with other facilities discharging to Deep run and to minimize further impairment.

Total Nitrogen

Weekly monitoring for total nitrogen was included in last permit renewal as recommended by SOPs and it is carried over to this permit renewal.

TRC

TRC limit of 0.02 mg/l was included in the 1998 permit renewal based on TRC\_CALC.XLS spreadsheet and the existing limit is carried over.

**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	Weekly Average	Minimum	Average Monthly	Weekly Average	Instant. Maximum		
Flow (MGD)	Report	Report	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 Avg Mo	XXX	XXX	XXX	1/day	Grab
TRC	XXX	XXX	XXX	0.02	XXX	0.05	1/day	Grab
CBOD5 Nov 1 - Apr 30	104.0	156.0	XXX	25.0	40.0	50	1/week	24-Hr Composite
CBOD5 Raw Sewage Influent	Report	XXX	XXX	Report	XXX	XXX	1/week	24-Hr Composite
CBOD5 May 1 - Oct 31	85	125	XXX	20.0	30.0	40	1/week	24-Hr Composite
BOD5 Raw Sewage Influent	Report	XXX	XXX	Report	XXX	XXX	1/month	24-Hr Composite
TSS	125	190	XXX	30.0	45.0	60	1/week	24-Hr Composite
TSS Raw Sewage Influent	Report	XXX	XXX	Report	XXX	XXX	1/week	24-Hr Composite
Fecal Coliform (No./100 ml)	XXX	XXX	XXX	200 Geo Mean	XXX	1000	1/week	Grab
Total Nitrogen	Report	XXX	XXX	Report	XXX	XXX	1/week	24-Hr Composite
Ammonia Nov 1 - Apr 30	16	XXX	XXX	3.9	XXX	7.8	1/week	24-Hr Composite
Ammonia May 1 - Oct 31	5.5	XXX	XXX	1.3	XXX	2.6	1/week	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	Weekly Average	Minimum	Average Monthly	Weekly Average	Instant. Maximum		
Total Phosphorus	6.2	XXX	XXX	1.0	XXX	2	1/week	24-Hr Composite
Total Copper	XXX	XXX	XXX	0.017	0.026 Daily Max	0.034	1/month	24-Hr Composite
Total Hardness	XXX	XXX	XXX	Report	XXX	XXX	1/month	24-Hr Composite

Compliance Sampling Location:

Other Comments: