

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

**NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE**

Application No. PA0101664
 APS ID 1030611
 Authorization ID 1339918

Applicant and Facility Information

Applicant Name	<u>Fred C Berlin LLC</u>	Facility Name	<u>Orchard Park Estates</u>
Applicant Address	<u>6101 Park Road</u> <u>Berwick, PA 18603-5713</u>	Facility Address	<u>135 Apricot Drive</u> <u>Franklin, PA 16323-8115</u>
Applicant Contact	<u>Fred Berlin</u>	Facility Contact	<u>Andrew Narlee</u>
Applicant Phone	<u>(570) 204-2531</u>	Facility Phone	<u>(724) 301-1042</u>
Client ID	<u>290762</u>	Site ID	<u>239243</u>
Ch 94 Load Status	<u>Not Overloaded</u>	Municipality	<u>Cranberry Township</u>
Connection Status	<u>No Limitations</u>	County	<u>Venango</u>
Date Application Received	<u>January 9, 2021</u>	EPA Waived?	<u>Yes</u>
Date Application Accepted	<u>February 1, 2021</u>	If No, Reason	<u></u>
Purpose of Application	<u>Renewal of an NPDES permit to discharge treated sewage.</u>		

Summary of Review

Act 14 – Proof of notification were submitted and received.

There is 1 open violation for subject client no. 290762 as of 02/23/2022 for unauthorized discharge of polluting substance to commonwealth waters. Debris was sighted in the dry stream.

A Consent Order and Agreement was entered into on June 23, 2021 to address violations.

This facility is currently submitting eDMR reports.

Planning was approved on May 5, 1972.

Sludge use and disposal description and location(s): Septage must be pumped and hauled off-site by a septage hauler for land application under a general permit authorized by DEP or disposal at an STP.

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.

Approve	Deny	Signatures	Date
X		Jon F. Bucha Jonathan F. Bucha / Civil Engineer General	February 23, 2022
X		Justin C. Dickey Justin C. Dickey, P.E. / Environmental Engineer Manager	February 28, 2022

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	<u>001</u>	Design Flow (MGD)	<u>.018</u>
Latitude	<u>41° 23' 8.2"</u>	Longitude	<u>-79° 48' 9.4"</u>
Quad Name	<u>Franklin</u>	Quad Code	<u>0707</u>
Wastewater Description: <u>Sewage Effluent</u>			
Receiving Waters	<u>Lower Twomile Run (CWF)</u>	Stream Code	<u>Unknown</u>
NHD Com ID	<u>100477203</u>	RMI	<u>0.64</u>
Drainage Area	<u>0.1 mi²</u>	Yield (cfs/mi ²)	<u>0</u>
Q ₇₋₁₀ Flow (cfs)	<u>0</u>	Q ₇₋₁₀ Basis	<u>Dry Stream</u>
Elevation (ft)	<u>1390 (Google Earth)</u>	Slope (ft/ft)	<u>-</u>
Watershed No.	<u>16-G</u>	Chapter 93 Class.	<u>CWF</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>		
Cause(s) of Impairment	<u>-</u>		
Source(s) of Impairment	<u>-</u>		
TMDL Status	<u>-</u>	Name	<u>-</u>
Background/Ambient Data		Data Source	
pH (SU)	<u>-</u>		<u>-</u>
Temperature (°F)	<u>-</u>		<u>-</u>
Hardness (mg/L)	<u>-</u>		<u>-</u>
Other:	<u>-</u>		<u>-</u>
Nearest Downstream Public Water Supply Intake	<u>Aqua PA Inc - Emlenton</u>		
PWS Waters	<u>Allegheny River</u>	Flow at Intake (cfs)	<u>1376</u>
PWS RMI	<u>90</u>	Distance from Outfall (mi)	<u>32.9</u>

Changes Since Last Permit Issuance: No changes to the discharge or receiving stream since last permit renewal.

Other Comments: This discharge should not impact downstream use. The Allegheny River has a flow of 1250 cfs below French Creek in Franklin.

Treatment Facility Summary				
Treatment Facility Name: Orchard Park Estates				
WQM Permit No.		Issuance Date		
6172412		December 13, 1972		
6172412 T-1		November 30, 2011		
6172412 A-1		October 11, 2017		
Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary	Stabilization Lagoon	Ultraviolet	0.018
Hydraulic Capacity (MGD)				
0.018	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
	68	Not Overloaded		

Changes Since Last Permit Issuance: The 2017 WQM permit amendment included addition of UV disinfection and post aeration to the treatment facility.

Other Comments: Treatment is with a three-cell lagoon with an influent flow splitter, two parallel (1,237,000-gallon and 2,178,000-gallon) primary cells and one (1,820,000-gallon) secondary cell, Ultraviolet disinfection, and post-aeration.

Compliance History	
Summary of DMRs:	The past 3 years have had numerous effluent violations for CBOD ₅ , TSS, and Fecal Coliform. Effluent violations are frequent.
Summary of Inspections:	An inspection occurred on 8/25/2021, where 1 violation was noted for an unauthorized, unpermitted discharge of polluting substances to waters of the commonwealth resulting in pollution. Multiple debris items were observed in the stream.

Other Comments: **A Consent Order and Agreement was entered into on June 23, 2021 as a result of chronic effluent violations. During the fourth quarter of 2021 multiple effluent violations triggered an evaluation of the treatment facility by a Pennsylvania-licensed engineer set fourth in the COA.**

Compliance History

DMR Data for Outfall 001 (from January 1, 2021 to December 31, 2021)

Parameter	DEC-21	NOV-21	OCT-21	SEP-21	AUG-21	JUL-21	JUN-21	MAY-21	APR-21	MAR-21	FEB-21	JAN-21
Flow (MGD) Average Monthly	0.009	0.006	0.005	0.008	0.0085	0.014	0.003	0.015	0.006	0.015	0.007	0.008
Flow (MGD) Daily Maximum	0.013	0.011	0.011	0.012	0.017	0.014	0.014	0.022	0.012	0.03	0.009	0.02
pH (S.U.) Minimum	7.5	7.4	7.4	7.2	7.0	7.0	7.0	7.3	7.3	7.2	7.0	7.2
pH (S.U.) Maximum	8.0	7.8	7.8	7.7	7.8	8.0	8.2	7.8	7.8	7.6	7.7	7.6
DO (mg/L) Minimum	8.1	7.2	6.2	7.1	6.3	6.1	6.0	7.14	6.7	6.6	8.4	8.11
CBOD5 (mg/L) Average Monthly	90.0	> 146.0	> 69.5	8.6	13.6	16.35	> 29.0	> 139.0	69.6	> 70.1	< 3.0	69.4
CBOD5 (mg/L) Instantaneous Maximum	> 148.0	> 147.0	> 72.9	8.6	15.7	17.9	> 29.0	> 139.0	> 69.6	> 70.1	< 3.0	69.4
TSS (mg/L) Average Monthly	21.0	8.5	16.5	15.0	24.0	34.5	42.0	48.0	3.0	64.0	31.0	25.0
TSS (mg/L) Instantaneous Maximum	24.0	11.0	20.0	15.0	29.0	54.0	42.0	48.0	3.0	64.0	31.0	25.0
Fecal Coliform (CFU/100 ml) Geometric Mean	2	< 1	< 1	108	< 22.1	< 1	4	< 1	< 1	> 2420	> 2400	1986
Fecal Coliform (CFU/100 ml) Instantaneous Maximum	4	< 1	< 1	108	489	< 1	4	< 1	< 1	> 2420	> 2400	1986
UV Transmittance (%) Average Monthly	88.5	92	91.3	89	81.5	85.3	93	94.6	80	81.3	82	78
Total Nitrogen (mg/L) Average Monthly	16.9	18.9	18.8	13.8	9.8	8	4.21	17.1	8.59	4.49	9.09	7.42
Ammonia (mg/L) Average Monthly	10.2	12.25	11.2	10.5	7	4	2.44	7.91	7.25	6.69	6.82	5.87
Total Phosphorus (mg/L) Average Monthly	2.4	2.5	2.27	2.48	2.0	1.23	0.63	2.16	0.33	1.09	0.94	0.98

Compliance History

Effluent Violations for Outfall 001, from: February 1, 2021 To: December 31, 2021

Parameter	Date	SBC	DMR Value	Units	Limit Value	Units
CBOD5	03/31/21	Avg Mo	> 70.1	mg/L	20.0	mg/L
CBOD5	06/30/21	Avg Mo	> 29.0	mg/L	20.0	mg/L
CBOD5	10/31/21	Avg Mo	> 69.5	mg/L	20.0	mg/L
CBOD5	04/30/21	Avg Mo	69.6	mg/L	20.0	mg/L
CBOD5	11/30/21	Avg Mo	> 146.0	mg/L	20.0	mg/L
CBOD5	05/31/21	Avg Mo	> 139.0	mg/L	20.0	mg/L
CBOD5	12/31/21	Avg Mo	90.0	mg/L	20.0	mg/L
CBOD5	05/31/21	IMAX	> 139.0	mg/L	40.0	mg/L
CBOD5	04/30/21	IMAX	> 69.6	mg/L	40.0	mg/L
CBOD5	03/31/21	IMAX	> 70.1	mg/L	40.0	mg/L
CBOD5	12/31/21	IMAX	> 148.0	mg/L	40.0	mg/L
CBOD5	10/31/21	IMAX	> 72.9	mg/L	40.0	mg/L
CBOD5	06/30/21	IMAX	> 29.0	mg/L	40.0	mg/L
CBOD5	11/30/21	IMAX	> 147.0	mg/L	40.0	mg/L
TSS	08/31/21	Avg Mo	24.0	mg/L	20.0	mg/L
TSS	05/31/21	Avg Mo	48.0	mg/L	20.0	mg/L
TSS	07/31/21	Avg Mo	34.5	mg/L	20.0	mg/L
TSS	06/30/21	Avg Mo	42.0	mg/L	20.0	mg/L

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Orchard Park Estates

NPDES Permit No. PA0101664

TSS	12/31/21	Avg Mo	21.0	mg/L	20.0	mg/L
TSS	03/31/21	Avg Mo	64.0	mg/L	20.0	mg/L
TSS	02/28/21	Avg Mo	31.0	mg/L	20.0	mg/L
TSS	06/30/21	IMAX	42.0	mg/L	40.0	mg/L
TSS	05/31/21	IMAX	48.0	mg/L	40.0	mg/L
TSS	03/31/21	IMAX	64.0	mg/L	40.0	mg/L
TSS	07/31/21	IMAX	54.0	mg/L	40.0	mg/L
Fecal Coliform	03/31/21	Geo Mean	> 2420	CFU/100 ml	2000	CFU/100 ml
Fecal Coliform	02/28/21	Geo Mean	> 2400	CFU/100 ml	2000	CFU/100 ml
Fecal Coliform	02/28/21	IMAX	> 2400	CFU/100 ml	10000	CFU/100 ml
Fecal Coliform	03/31/21	IMAX	> 2420	CFU/100 ml	10000	CFU/100 ml

Development of Effluent Limitations

Outfall No. <u>001</u>	Design Flow (MGD) <u>.018</u>
Latitude <u>41° 23' 8.2"</u>	Longitude <u>-79° 48' 9.4"</u>
Wastewater Description: <u>Sewage Effluent</u>	

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 ₅	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

The point of first use was determined to be the confluence with Lower Twomile Run, located 0.64 mi from the outfall. Water quality modeling is not necessary since there is no aquatic life to protect in the dry stream, and the discharge will not have an impact on stream uses at Lower Twomile Run or the Allegheny River.

Best Professional Judgment (BPJ) Limitations

Comments: Monitoring for Total Nitrogen, Total Phosphorus, and Ammonia Nitrogen will be continued at a frequency of 1/month based on eDMR data, and the SOP titled “Establishing Effluent Limitations for Individual Sewage Permits”.

E. Coli monitoring of 1/year is required for design flows between 0.002 – 0.05 mgd for this permit renewal based on the SOP mentioned above. E. Coli is a new parameter for this permit renewal.

CBOD₅ and TSS limits of 20 mg/L average monthly and 40 mg/L imax will be continued on this permit renewal to ensure downstream uses are protected.

Dissolved oxygen daily minimum limit is 6 mg/L, which meets both dry stream and CWF requirements.

In accordance with the SOP, since there is less than 3 parts stream flow (Q7-10) to 1 part effluent (design flow), the treatment requirements in document number 391-2000-014, titled, “Policy and Procedure for Evaluating Wastewater Discharges to Intermittent and Ephemeral Streams, Drainage Channels and Swales, and Storm Sewers”, dated April 12, 2008, were evaluated for this NPDES Permit renewal. Based on the eDMR data, this facility would not be able to meet all of the treatment requirements in document number 391-2000-014, so no additional requirements will be added with this renewal. JCD

Anti-Backsliding

Anti-backsliding does not apply since limitations are not being relaxed.

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) ⁽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	1/month	Measured
pH (S.U.)	XXX	XXX	6.0 Daily Min	XXX	XXX	9.0	1/day	Grab
DO	XXX	XXX	6.0 Daily Min	XXX	XXX	XXX	1/day	Grab
CBOD5	XXX	XXX	XXX	20.0	XXX	40.0	1/month	Grab
TSS	XXX	XXX	XXX	20.0	XXX	40.0	1/month	Grab
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	1/month	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	1/month	Grab
E. Coli (No./100 ml)	XXX	XXX	XXX	XXX	XXX	Report	1/year	Grab
UV Transmittance (%)	XXX	XXX	XXX	Report	XXX	XXX	1/day	Measured
Total Nitrogen	XXX	XXX	XXX	Report	XXX	XXX	1/month	Grab
Ammonia	XXX	XXX	XXX	Report	XXX	XXX	1/month	Grab
Total Phosphorus	XXX	XXX	XXX	Report	XXX	XXX	1/month	Grab

Compliance Sampling Location: Outfall 001 after disinfection.

Attachment A – eMAP Stream Designation

