

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

**NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE**

Application No. PA0042161
 APS ID 1124648
 Authorization ID 1504512

Applicant and Facility Information

Applicant Name	<u>BG 275 Properties LLC</u>	Facility Name	<u>Green Haven Estates STP</u>
Applicant Address	<u>848 W North Avenue</u> <u>Pittsburgh, PA 15233-1617</u>	Facility Address	<u>4032 E Shaffer Road</u> <u>Aliquippa, PA 15001</u>
Applicant Contact	<u>Suzanne Gibson</u>	Facility Contact	<u></u>
Applicant Phone	<u>(412) 504-9134</u>	Facility Phone	<u></u>
Client ID	<u>367853</u>	Site ID	<u>240604</u>
Ch 94 Load Status	<u>Not Overloaded</u>	Municipality	<u>Raccoon Township</u>
Connection Status	<u>No Limitations</u>	County	<u>Beaver</u>
Date Application Received	<u>October 21, 2024</u>	EPA Waived?	<u>Yes</u>
Date Application Accepted	<u>November 1, 2024</u>	If No, Reason	<u></u>
Purpose of Application	<u>Renewal application to discharge treated sewage</u>		

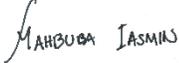
Summary of Review

This review is in response to a renewal application received on October 22, 2024. BG275 Properties owns and operates the Green Haven Estates STP in Raccoon Township, Beaver County. Residential sewage generated from Green Haven Estates is treated with extended aeration, sand filtration, and chlorination before discharging into a drainage swale into an unnamed tributary of Raccoon Creek through outfall 001.

Sludge use and disposal description and location(s): pumped and hauled to another sewage plant.

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		James Vanek James Vanek, P.E. / Environmental Engineer	February 27, 2026
X		 Mahbuba Iasmin, Ph.D., P.E. / Environmental Engineering Manager	March 4, 2026

Discharge, Receiving Waters and Water Supply Information

Outfall No.	<u>001</u>	Design Flow (MGD)	<u>.0112</u>
Latitude	<u>40° 36' 37.65"</u>	Longitude	<u>-80° 20' 11.35"</u>
Quad Name	<u></u>	Quad Code	<u></u>
Wastewater Description: <u>Sewage Effluent</u>			

Receiving Waters	<u>Unnamed Tributary to Raccoon Creek (WWF)</u>	Stream Code	<u>UNT to 33578</u>
NHD Com ID	<u>99681822</u>	RMI	<u>0.19</u>
Drainage Area	<u>NA</u>	Yield (cfs/mi ²)	<u>0.015</u>
Q ₇₋₁₀ Flow (cfs)	<u>0</u>	Q ₇₋₁₀ Basis	<u>Previous fact sheet</u>
Elevation (ft)	<u></u>	Slope (ft/ft)	<u></u>
Watershed No.	<u>20-D</u>	Chapter 93 Class.	<u>WWF</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 Final Name Raccoon Creek Watershed

Background/Ambient Data	Data Source
pH (SU)	<u></u>
Temperature (°F)	<u></u>
Hardness (mg/L)	<u></u>
Other:	<u></u>

Nearest Downstream Public Water Supply Intake

PWS Waters	<u></u>	Flow at Intake (cfs)	<u></u>
PWS RMI	<u></u>	Distance from Outfall (mi)	<u></u>

Changes Since Last Permit Issuance:

Other Comments:

Treatment Facility Summary				
Treatment Facility Name: Green Haven Estates STP				
WQM Permit No.		Issuance Date		
0476402		04/20/1976		
Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary With Ammonia Reduction	Extended Aeration	Hypochlorite	0.0112
Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.0112	19	Not Overloaded	Aerobic Digestion	Other WWTP

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** 0.0112
Latitude 40° 36' 32.50" **Longitude** 80° 19' 57.70"
Wastewater Description: _____

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)(1)

Comments: Discharge to a swale, so average monthly CBOD₅ was given 10 mg/l and TRC was given 1.4 mg/l.

No water quality modeling has been performed during this renewal. The following effluent limits are based on the dry stream discharge policy that was in effect at the time the sewage plant was constructed (1976). The plant can achieve these limits, and these limits will continue to be imposed on this discharge:

Parameter	Average Monthly Limit (mg/l)	SBC

Ammonia-Nitrogen (May 1 – Oct 31)	1.5	3.0
Ammonia-Nitrogen (Nov 1 – Apr 30)	4.5	9.0
Dissolved Oxygen	5.0	Minimum

Disinfection

The Average Monthly and Instantaneous Maximum Total Residual Chlorine (TRC) effluent limitations imposed in the previous NPDES permit were 1.4 mg/l and 3.3 mg/l, respectively. At that time, those values were considered BAT limitations per the SWRO's TRC Implementation for Sewage Facilities Planning Section Interim Guidance, dated June 20, 1995, for an existing minor facility having a design flow <= 0.1 mgd permitted before July 1995. An average monthly limitation of 0.5 mg/l for TRC is now a regulatory standard under §§92a.47(a)(8) and 92a.48(b). Reviews of the Discharge Monitoring Reports reveal the plant consistently achieves the proposed average monthly limit of 0.5 mg/l therefore that limit will be imposed. Sample frequency has been changed to 1/week.

Flow Monitoring

Flow monitoring has been changed from 2/month measured to 1/week measured.

Additional Considerations

Sewage dischargers will include monitoring, at a minimum, for E. Coli, in new and reissued permits, with a monitoring frequency of 1/year for design flows 0.002 – 0.05 MGD per 25 Pa. Code § 92a.061, and Section I.A, Note 12, SOP No. BCW-PMT-033, Establishing Effluent Limitations for Individual Sewage Permits.

Nutrient monitoring is required to establish the nutrient load from the wastewater treatment facility and the impacts that load may have on the quality of the receiving stream(s). The discharge is to waters not impaired for nutrients. A 1/year monitoring requirement for Total N & Total P has been added to the permit per 25 Pa. Code § 92a.061, and Section I.A, Note 7 & 8, SOP No. BCW-PMT-033, Establishing Effluent Limitations for Individual Sewage Permits.

Monitoring frequency for the proposed effluent limits are based upon Table 6-3, Self-Monitoring Requirements for Sewage Dischargers, from the Departments Technical Guidance for the Development and Specification of Effluent Limitations and Other Permit Conditions in NPDES Permits (Document No. 386-0400-001).

Compliance History

DMR Data for Outfall 001 (from November 1, 2023 to October 31, 2024)

Parameter	OCT-24	SEP-24	AUG-24	JUL-24	JUN-24	MAY-24	APR-24	MAR-24	FEB-24	JAN-24	DEC-23	NOV-23
Flow (MGD) Average Monthly		0.0112	0.0016	0.0048	0.0043	0.0038	0.0112	0.0027	0.0027	0.0085	0.0055	0.0087
pH (S.U.) Instantaneous Minimum		6.06	6.11	6.06	6.62	6.8	6.21	6.46	6.54	6.77	6.99	7.02
pH (S.U.) Instantaneous Maximum		6.69	5.02	6.68	7.06	7.06	6.88	7.01	7.40	7.04	7.56	7.41
DO (mg/L) Instantaneous Minimum		6.07	5.02	5.1	5.1	3.16	4.09	4.2	5.50	6.3	6.90	6.25
TRC (mg/L) Average Monthly		0.87	0.89	0.9	0.63	0.48	0.01	0.11	0.87	0.46	0.085	0.095
TRC (mg/L) Instantaneous Maximum		1.27	1.39	1.31	1.10	0.71	0.02	0.26	1.16	0.89	0.11	0.13
CBOD5 (mg/L) Average Monthly		10.85	30.55	8.55	54.95	3.9	7.4	4.7	2.0	2.0	2.45	14.95
CBOD5 (mg/L) Instantaneous Maximum		19.20	52.7	12.4	107.9	5.3	7.4	7.4	2.0	2.0	2.0	23.1
TSS (mg/L) Average Monthly		20.0	36.0	10.3	38.5	10.5	8.0	7.5	5.0	5.0	5.5	6.5
TSS (mg/L) Instantaneous Maximum		31.0	58.0	15.0	62.0	13.0	8.0	10.0	5.0	5.0	6.0	8.0
Fecal Coliform (No./100 ml) Geometric Mean		1.0	1.41	3.67	1.41	6.32	1.0	23.62	1.41	6.08	61.97	19.34
Fecal Coliform (No./100 ml) Instantaneous Maximum		1.0	2.0	13.5	2.0	40	1	279	2.0	37	1920	187
Total Nitrogen (mg/L) Daily Maximum											34.96	

**NPDES Permit Fact Sheet
Green Haven Estates STP**

NPDES Permit No. PA0042161

Ammonia (mg/L) Average Monthly		8.3	5.3	15.7	33.05	1.9	2.7	5.4	0.1	0.20	145.4	0.1
Ammonia (mg/L) Instantaneous Maximum		15.5	7.10	17.9	59.00	3.4	2.7	10.70	0.1	0.3	28.6	0.1
Total Phosphorus (mg/L) Daily Maximum											0.2	

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) ⁽¹⁾		Concentrations (mg/L)				Minimum ⁽²⁾ Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD)	0.0112	XXX	XXX	XXX	XXX	XXX	1/week	Measured
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	2/month	Grab
DO	XXX	XXX	5.0 Inst Min	XXX	XXX	XXX	2/month	Grab
TRC	XXX	XXX	XXX	0.5	XXX	1.6	4/month	Grab
CBOD5	XXX	XXX	XXX	10	XXX	20	2/month	Grab
TSS	XXX	XXX	XXX	25	XXX	50	2/month	Grab
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	2/month	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	2/month	Grab
E. Coli (No./100 ml)	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/year	Grab
Total Nitrogen	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/year	Grab
Ammonia-Nitrogen Nov 1 - Apr 30	XXX	XXX	XXX	4.5	XXX	9.0	2/month	Grab
Ammonia-Nitrogen May 1 - Oct 31	XXX	XXX	XXX	1.5	XXX	3.0	2/month	Grab
Total Phosphorus	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/year	Grab

Compliance Sampling Location: at outfall 001