

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

**NPDES PERMIT FACT SHEET  
INDIVIDUAL SEWAGE**

Application No. PA0098183  
 APS ID 1107499  
 Authorization ID 1473248

**Applicant and Facility Information**

Applicant Name	<u>Sands, Inc.</u>	Facility Name	<u>Stone Mansion STP</u>
Applicant Address	<u>2000 Georgetown Drive Suite 100</u> <u>Sewickley, PA 15143-8992</u>	Facility Address	<u>Stone Mansion Drive</u> <u>Sewickley, PA 15143</u>
Applicant Contact	<u>Gary A. Sippel</u>	Facility Contact	<u>Same as Applicant</u>
Applicant Phone	<u>(724) 935-2400</u>	Facility Phone	<u>Same as Applicant</u>
Client ID	<u>383824</u>	Site ID	<u>244749</u>
Ch 94 Load Status	<u>Not Overloaded</u>	Municipality	<u>Franklin Park Borough</u>
Connection Status	<u>No Restrictions</u>	County	<u>Allegheny</u>
Date Application Received	<u>February 12, 2024</u>	EPA Waived?	<u>Yes</u>
Date Application Accepted	<u></u>	If No, Reason	<u></u>
Purpose of Application	<u>Renewal and transfer of NPDES permit for Stone Mansion STP</u>		

**Summary of Review**

On February 12, 2024, the Department received an application requesting that NPDES Permit No. PA0098183 for Stone Mansion Sewage Treatment Plant be renewed and transferred from Gary A. Sippel, an individual, to Sands, Inc., a Pennsylvania corporation. The previous permit was issued to Gary A. Sippel.

WQM Permit No. 0288428, issued September 23, 1988, said permit being transferred to Sands, Inc. on 03/05/2024, authorized the construction of a STP with a hydraulic design capacity of 0.0358 MGD.

The existing treatment process is an extended aeration treatment system consisting of a bar screen, comminutor, aeration tanks, clarifiers, sand filtration, chlorination, and de-chlorination.



The receiving stream, Swale to UNT of East Branch Big Sewickley Creek, is classified as a TSF and is located in State Watershed No. 20-G.

The applicant has complied with Act 14 Notifications and no comments were received.

Sludge use and disposal description and location(s): Sludge is transported to and disposed of by Allegheny Valley WWTP.

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-

Approve	Deny	Signatures	Date
X		 Vaughn Coolman / Environmental Engineer Trainee	March 18, 2024
x		 Mahbuba Iasmin, Ph.D., P.E. / Environmental Engineer Manager	March 20, 2024

**Summary of Review**

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>.03583</u>
Latitude	<u>40° 36' 46"</u>	Longitude	<u>-80° 6' 24"</u>
Quad Name	<u>Emsworth</u>	Quad Code	<u>1405</u>
Wastewater Description: <u>Sewage Effluent</u>			
Receiving Waters	<u>Swale to unnamed Tributary of East Branch Big Sewickley Creek (TSF)</u>	Stream Code	<u>Swale to 36627</u>
NHD Com ID	<u>99680584</u>	RMI	<u>0.31</u>
Drainage Area	<u>0.0362</u>	Yield (cfs/mi <sup>2</sup> )	<u>0</u>
Q <sub>7-10</sub> Flow (cfs)	<u>0.000137</u>	Q <sub>7-10</sub> Basis	<u>StreamStats</u>
Elevation (ft)	<u>1170</u>	Slope (ft/ft)	<u></u>
Watershed No.	<u>20-G</u>	Chapter 93 Class.	<u>TSF</u>
Existing Use	<u></u>	Existing Use Qualifier	<u></u>
Exceptions to Use	<u>None</u>	Exceptions to Criteria	<u>None</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>PWSI #5040007, CENTER TWP WATER AUTHORITY</u>		
PWS Waters	<u>OHIO RIVER</u>	Flow at Intake (cfs)	<u>5,880</u>
PWS RMI	<u>953.6</u>	Distance from Outfall (mi)	<u></u>

Changes Since Last Permit Issuance: N/A

Other Comments: N/A

Treatment Facility Summary				
<b>Treatment Facility Name:</b> Stone Mansion STP				
<b>WQM Permit No.</b>		<b>Issuance Date</b>		
0288428		September 23, 1988		
0288428 A-1		August 02, 1999		
Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Tertiary	Extended Aeration	Chlorination & De-chlorination	0.0358
Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.0358	61	Not Overloaded	Sludge holding tank	regional WWTP

Changes Since Last Permit Issuance: N/A

Other Comments: N/A

Compliance History

DMR Data for Outfall 001 (from February 1, 2023 to January 31, 2024)

Parameter	JAN-24	DEC-23	NOV-23	OCT-23	SEP-23	AUG-23	JUL-23	JUN-23	MAY-23	APR-23	MAR-23	FEB-23
Flow (MGD) Average Monthly	0.01515	0.01411	0.01495	0.01499 9	0.01412	0.01599 9	0.01444	0.01400 1	0.01486	0.01789	0.01499 9	0.01622 9
pH (S.U.) Daily Minimum	6.8	6.8	6.7	6.8	6.8	6.5	6.8	6.8	6.9	6.7	6.8	6.8
pH (S.U.) Daily Maximum	7.2	7.3	7.2	7.3	7.4	7.4	7.2	7.2	7.6	7.2	7.2	7.6
DO (mg/L) Daily Minimum	6.6	5.2	4.5	6.1	5.8	4.9	5.4	6.0	5.2	4.9	5.4	6.0
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	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.03	0.02	0.02	0.03
CBOD5 (mg/L) Average Monthly	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 4.7	< 3.0	< 3.0	< 3.0
CBOD5 (mg/L) Instantaneous Maximum	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	6.4	< 3.0	< 3.0	< 3.0
TSS (mg/L) Average Monthly	< 3.0	< 3.0	< 5.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
TSS (mg/L) Instantaneous Maximum	< 3.0	< 3.0	6.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	3.0	< 3.0	< 3.0
Fecal Coliform (No./100 ml) Geometric Mean	32	< 1	12	< 1	< 15	< 5	< 1	< 23	< 1	35	< 1	120
Fecal Coliform (No./100 ml) Instantaneous Maximum	1047	1	39	1	239	30	1	548	1	109	1	> 2420
Total Nitrogen (mg/L) Daily Maximum		33.8										
Ammonia (mg/L) Average Monthly	1.37	0.49	0.7	< 0.17	< 0.18	1.55	1.57	0.17	0.43	< 0.2	< 0.1	0.93

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Stone Mansion STP**

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Ammonia (mg/L) Instantaneous Maximum	2.2	0.66	1.29	0.2	0.26	1.89	1.96	0.21	0.73	0.29	< 0.1	1.6
Total Phosphorus (mg/L) Daily Maximum		5.05										

## Operations Compliance Check Summary Report

**Facility:** Stone Mansion STP

**NPDES Permit No.:** PA0098183

**Compliance Review Period:** 3/2019 – 3/2024

**Inspection Summary:**

INSP ID	INSPECTED DATE	INSP TYPE	AGENCY	INSPECTION RESULT DESC	CREATION DATE	UPDATE DATE
<a href="#">3623185</a>	09/21/2023	Compliance Evaluation	County Health Dept	Violation(s) Noted	10/02/2023	10/04/2023
<a href="#">3409878</a>	08/04/2022	Compliance Evaluation	County Health Dept	Violation(s) Noted	08/22/2022	09/28/2022
3221693	07/20/2021	Compliance Evaluation	County Health Dept	Violation(s) Noted	07/20/2021	09/22/2021
2908940	07/18/2019	Compliance Evaluation	County Health Dept	No Violations Noted	07/19/2019	07/19/2019

**Violation Summary:**

VIOL ID	VIOLATION DATE	VIOLATION TYPE DESC	RESOLVED DATE	INSP ID	INSPECTED DATE
8160634	09/21/2023	NPDES - Failure to properly operate and maintain all facilities which are installed or used by the permittee to achieve compliance	10/04/2023	3623185	09/21/2023
8160635	09/21/2023	NPDES - Violation of effluent limits in Part A of permit	10/04/2023	3623185	09/21/2023
965566	08/04/2022	NPDES - Violation of effluent limits in Part A of permit	08/23/2022	3409878	08/04/2022
965567	08/04/2022	NPDES - Failure to properly operate and maintain all facilities which are installed or used by the permittee to achieve compliance	08/23/2022	3409878	08/04/2022
926211	07/20/2021	NPDES - Failure to properly operate and maintain all facilities which are installed or used by the permittee to achieve compliance	08/13/2021	3221693	07/20/2021

**Open Violations by Client ID:**

No open violations for client id 111663

**Enforcement Summary:**

ENF ID	ENF TYPE	ENF CREATION DATE	EXECUTED DATE	ENF FINALSTATUS	ENF CLOSED DATE
<a href="#">397365</a>	NOV	09/22/2021	08/13/2021	Administrative Close Out	01/02/2024
420515	NOV	10/04/2023	10/04/2023	Administrative Close Out	10/04/2023
407734	NOV	09/28/2022	08/23/2022	Comply/Closed	08/23/2022

**DMR Violation Summary:**

START	END	NON COMPLIANCE CATEGORY	PARAMETER	SAMPLE	PERMIT	UNIT OF MEASURE	STATISTICAL BASE CODE
02/01/2023	02/28/2023	Concentration 3 Effluent Violation	Fecal Coliform	> 2420	10000	No./100 ml	Instantaneous Maximum
01/01/2023	01/31/2023	Concentration 2 Effluent Violation	Fecal Coliform	> 110	2000	No./100 ml	Geometric Mean
01/01/2023	01/31/2023	Concentration 3 Effluent Violation	Fecal Coliform	> 2420	10000	No./100 ml	Instantaneous Maximum
03/01/2022	03/31/2022	Concentration 2 Effluent Violation	Ammonia-Nitrogen	9.51	3.0	mg/L	Average Monthly
03/01/2022	03/31/2022	Concentration 3 Effluent Violation	Ammonia-Nitrogen	14.4	6.0	mg/L	Instantaneous Maximum
03/01/2022	03/31/2022	Concentration 3 Effluent Violation	Fecal Coliform	> 2420	10000	No./100 ml	Instantaneous Maximum
08/01/2021	08/31/2021	Concentration 2 Effluent Violation	Fecal Coliform	248	200	No./100 ml	Geometric Mean
08/01/2021	08/31/2021	Concentration 3 Effluent Violation	Fecal Coliform	1120	1000	No./100 ml	Instantaneous Maximum
06/01/2020	06/30/2020	Concentration 3 Effluent Violation	Fecal Coliform	1414	1000	No./100 ml	Instantaneous Maximum

**Compliance Status:**

In compliance.

**Completed by:** John Murphy

**Completed date:** 3/6/2024



**Development of Effluent Limitations**

<b>Outfall No.</b> <u>001</u>	<b>Design Flow (MGD)</b> <u>.03583</u>
<b>Latitude</b> <u>40° 36' 45.00"</u>	<b>Longitude</b> <u>-80° 6' 24.00"</u>
<b>Wastewater Description:</b> <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 <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: This facility was permitted prior to final publication of the Department’s Policy and Procedure for Evaluating Wastewater Dischargers to Intermittent and Ephemeral Streams, Drainage Channels and Swales, and Storm Sewers (386-2000-013). The stream flow (Q7-10) to wastewater flow (design flow) ratio is less than 3:1, but since the discharge is not expanding, the receiving stream is not impaired, and the existing point source discharge does not contribute to any impairment, the standards set forth in DEP guidance (386-2000-013) are not applicable and the exiting limits will be re-imposed as noted in Section I.C.1-3 of the SOP for Clean Water Program, Establishing Effluent Limitations for Individual Sewage Permits, Final November 9, 2012, Revised February 5, 2024, Version 2.0.

The previous NPDES Permit imposed a TSS limit of 10 mg/L AML in accordance with the Department’s “Implementation Guidance for Evaluating Wastewater Discharges to Drainage Swales and Ditches”. This limit will be re-imposed on this discharger as there has been no change to the discharge or to the receiving stream.

**Water Quality-Based Limitations**

The following limitations were determined through water quality modeling:

Parameter	Limit (mg/l)	SBC	Model
CBOD <sub>5</sub>	10.0	Average Monthly	WQAM63
Ammonia Nitrogen (5/1 – 10/31)	2.0	Average Monthly	WQAM63
Ammonia Nitrogen (11/1 – 4/30)	3.0	Average Monthly	WQAM63
Total Residual Chlorine	0.02	Average Monthly	TRC_CALC Spreadsheet

Comments: Due to anti-backsliding, the limits for CBOD<sub>5</sub>, Ammonia-Nitrogen, and TRC as shown in the table above will continue to be imposed.

The applicable portion of the SOP states “For existing discharges, where the existing TRC limit is at or below 0.1 mg/L, the existing limit may remain in the reissued permit (no modeling required)” in Section II.C.4 of the SOP for Clean Water Program, Establishing Effluent Limitations for Individual Sewage Permits, Final November 9, 2012, Revised February 5, 2024, Version 2.0. Therefore, the existing TRC limit of 0.02 mg/L will be re-imposed.

### **Best Professional Judgment (BPJ) Limitations**

Comments: A minimum Dissolved Oxygen (DO) limit of 4.0 mg/L should be established based on BPJ to ensure adequate operation and maintenance (Section I.A, Note 6, SOP for Clean Water Program, Establishing Effluent Limitations for Individual Sewage Permits, Final November 9, 2012, Revised February 5, 2024, Version 2.0).

### **Anti-Backsliding**

Section 402(o) of the Clean Water Act (CWA), enacted in the Water Quality Act of 1987, establishes anti-backsliding rules governing two situations. The first situation occurs when a permittee seeks to revise a Technology-Based effluent limitation based on BPJ to reflect a subsequently promulgated effluent guideline which is less stringent. The second situation addressed by Section 402(o) arises when a permittee seeks relaxation of an effluent limitation which is based upon a State treatment standard of water quality standard.

Previous limits can be used pursuant to EPA's anti-backsliding regulation 40 CFR 122.44 (l) Reissued permits. (1) Except as provided in paragraph (l)(2) of this section when a permit is renewed or reissued. Interim effluent limitations, standards or conditions must be at least as stringent as the final effluent limitations, standards, or conditions in the previous permit (unless the circumstances on which the previous permit was based have materially and substantially changed since the time the permit was issued and would constitute cause for permit modification or revocation and reissuance under §122.62). (2) In the case of effluent limitations established on the basis of Section 402(a)(1)(B) of the CWA, a permit may not be renewed, reissued, or modified on the basis of effluent guidelines promulgated under section 304(b) subsequent to the original issuance of such permit, to contain effluent limitations which are less stringent than the comparable effluent limitations in the previous permit.

The facility is not seeking to revise the previously permitted effluent limits.

### **Additional Considerations**

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. 362-0400-001).

Sewage discharges will include monitoring, at a minimum, for *E. Coli*, in new and reissued permits, with a monitoring frequency of 1/year for facilities with a design flows of 0.002 – 0.05 MGD per 92a.61 and Section I.A, Note 12, SOP for Clean Water Program, Establishing Effluent Limitations for Individual Sewage Permits, Final November 9, 2012, Revised February 5, 2024, Version 2.0.

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). A 1/year monitoring requirement for Total N & Total P has been added to the permit per Chapter 92a.61 and Section I.A, Note 7 & 8, SOP for Clean Water Program, Establishing Effluent Limitations for Individual Sewage Permits, Final November 9, 2012, Revised February 5, 2024, Version 2.0. Discharge is to waters not impaired for nutrients.

**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	1/week	Measured
pH (S.U.)	XXX	XXX	6.0 Daily Min	XXX	9.0 Daily Max	XXX	1/day	Grab
DO	XXX	XXX	4.0 Daily Min	XXX	XXX	XXX	1/day	Grab
TRC	XXX	XXX	XXX	0.02	XXX	0.04	1/day	Grab
CBOD5	XXX	XXX	XXX	10.0	XXX	20.0	2/month	Grab
TSS	XXX	XXX	XXX	10.0	XXX	20.0	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	XXX	Report	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	3.0	XXX	6.0	2/month	Grab
Ammonia-Nitrogen May 1 - Oct 31	XXX	XXX	XXX	2.0	XXX	4.0	2/month	Grab
Total Phosphorus	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/year	Grab

Compliance Sampling Location: Outfall 001

Other Comments: N/A