

**NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE**

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

Application No. PA0101265
APS ID 1007644
Authorization ID 1298786

Applicant and Facility Information

Applicant Name	<u>Andrew L Hatton</u> <u>D/B/A Shangri-La Mobile Home Court</u>	Facility Name	<u>Shangri-La by the Lake</u>
Applicant Address	<u>2090 W State Road</u> <u>Jamestown, PA 16134-3758</u>	Facility Address	<u>1824 Williamsfield Road</u> <u>Jamestown, PA 16134-3466</u>
Applicant Contact	<u>Andrew Hatton</u>	Facility Contact	<u></u>
Applicant Phone	<u>(724) 866-2660</u>	Facility Phone	<u></u>
Applicant E Mail	<u>andyhat2660@gmail.com</u>	Facility E Mail	<u></u>
Client ID	<u>121071</u>	Site ID	<u>264321</u>
Municipality	<u>West Shenango Township</u>	County	<u>Crawford</u>
Ch 94 Load Status	<u>Not Overloaded</u>	Connection Status	<u>No Limitations</u>
Received	<u>November 26, 2019</u>	EPA Waived?	<u>Yes</u>
Accepted	<u>December 12, 2019</u>	If No, Reason	<u></u>

Purpose of Application Treated sewage NPDES discharge permit renewal

Summary of Review

In compliance as of 2011. Proposed is a DO increase from 3.0 to 4.0-mg/L and a TRC decrease from 1.4 to 0.5-mg/L. *(There are no open violations in WMS for the subject Client ID (121071) as of September 29, 2021. JCD*

No sludge use and disposal is reported.

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		<i>William H. Mentzer</i> William H. Mentzer, P.E. Environmental Engineering Specialist	September 23, 2021
X		Justin C. Dickey Justin C. Dickey, P.E. Environmental Engineer Manager	September 29, 2021

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	<u>001</u>	Design Flow (MGD)	<u>0.0056</u>
Latitude DP	<u>41° 30' 42.00"</u>	Longitude DP	<u>-80° 29' 0.00"</u>
Latitude NHD	<u>41° 30' 49.47"</u>	Longitude NHD	<u>-80° 29' 1.98"</u>
Quad Name	<u>Hartstown</u>	Quad Code	<u>0602</u>
Wastewater:	<u>Treated domestic wastes from 9 mobile homes & 4 apartments (1X2- & 2X1-unit) & 1 home</u>		
Receiving Waters	<u>Unnamed Tributary to Shenango River</u>	Stream Code	<u>36356</u>
NHD Com ID	<u>130029021</u>	RMI	<u>0.5</u>
Drainage Area	<u>0.21</u>	Yield (cfs/mi ²)	<u>0.06</u>
Q ₇₋₁₀ Flow (cfs)	<u>0</u>	Q ₇₋₁₀ Basis	<u>Little Shenango</u>
Elevation (ft)	<u>1031.56</u>	Slope (ft/ft)	<u>0.00592</u>
Watershed No.	<u>20-A</u>	Chapter 93 Class.	<u>WWF</u>
Existing Use	<u>statewide</u>	Existing Use Qualifier	<u>none</u>
Exceptions to Use	<u>none</u>	Exceptions to Criteria	<u>none</u>
Comments	<u>Dry stream conveyance to the Pymatuning Reservoir.</u>		
Assessment Status	<u>Attaining Use(s)</u>		
Cause(s) of Impairment	_____		
Source(s) of Impairment	_____		
TMDL Status	_____	Name	_____
Background/Ambient Data		Data Source	
pH (SU)	_____		_____
Temperature (°F)	_____		_____
Hardness (mg/L)	_____		_____
Other:	_____		_____
Nearest Downstream Public Water Supply Intake	<u>Greenville Municipal Water Authority</u>		
PWS Waters	<u>Shenango River</u>	Flow at Intake (cfs)	<u>NA</u>
PWS RMI	<u>58.93</u>	Distance from Outfall (mi)	<u>11</u>

Changes Since Last Permit Issuance: none

Other Comments: This discharge should not affect any down-stream public water supply

Treatment Facility Summary				
Treatment Facility Name: Shangri La Trailer Park				
WQM Permit No.	Issuance Date	Treatment		
2082402	17 November 1983	Sump pump, two septic tanks, two cell polishing lagoon, and chlorination		
2082402 A1	23 February 1998	Two septic tanks, two cell polishing lagoon, and chlorination		
2082402 A2	3 September 2009	Three septic tanks, two cell polishing lagoon, chlorination and dechlorination		
Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary	Stabilization Lagoon	Hypochlorite	0.0056
Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.0056	18.9	Not Overloaded	Anaerobic Digestion	Other WWTP

Changes Since Last Permit Issuance: none

Treatment is three septic tanks followed by a two cell stabilization lagoons, chlorination and dechlorination.

Disinfection (calcium hypochlorite) and dechlorination (sodium sulfite) are covered through WQM permit amendment 1. Design included a 500-gallon contact tank and groundwater reporting.

Planning approval for larger system is dated 25 April 1969. The lagoons are earthen lined.

Other Comments:

The original permit included an above ground campground connection. The campground is closed and this connection was abandoned. The connection was recommended by water supply and designed by Ronald Bittler, P.E. This connection was not the best and should not be re-authorized. Any such connection should be directly from a septic tank by pumping or gravity.

The WQM permit includes fecal coliform, nitrate-nitrogen, ammonia-nitrogen, and 5 day CBOD reporting. Well 1 is near the cell 1 inlet and well 2 is below cell 2 outlet.

Compliance History

DMR Data for Outfall 001 (from August 1, 2020 to July 31, 2021)

Parameter	JUL-21	JUN-21	MAY-21	APR-21	MAR-21	FEB-21	JAN-21	DEC-20	NOV-20	OCT-20	SEP-20	AUG-20
Flow (MGD) Average Monthly									0.008	0.012		
pH (S.U.) Minimum									7.33	6.8		
pH (S.U.) Maximum									7.38	7.4		
DO (mg/L) Minimum									3.98	3.8		
TRC (mg/L) Average Monthly									0.36	0.38		
CBOD5 (mg/L) Average Monthly									2.1	7		
TSS (mg/L) Average Monthly									FF	61		
Fecal Coliform (#/100 ml) Geometric Mean									1	1		
Total Nitrogen (mg/L) Average Monthly									FF	19.3		
Ammonia (mg/L) Average Monthly									11.2	12.8		
Total Phosphorus (mg/L) Average Monthly									FF	1.74		

Compliance History

Effluent Violations for Outfall 001, from: September 1, 2020 To: July 31, 2021

Parameter	Date	SBC	DMR Value	Units	Limit Value	Units
TSS	10/31/20	Avg Mo	61	mg/L	30	mg/L

Other Comments: Fall high TSS is not unusual for a lagoon system. The facility is a simple solution to a malfunctioning on-lot system and an underloaded activated sludge facility. Groundwater monitoring is not well placed and the waste source approximated acceptable pond leakage. The facility is isolated and the are is not well suited for subsurface sewage disposal.

Development of Effluent Limitations

Outfall No. <u>001</u>	Design Flow (MGD) <u>0.0056</u>
Latitude <u>41° 30' 42.00"</u>	Longitude <u>-80° 29' 0.00"</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©	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)
DO	4	Daily minimum		BPJ

Comments: none

Water Quality-Based Limitations

Secondary treatment should be adequate. No aquatic life or human health protection requirements are necessary as the discharge is to a drainage swale where minimum human contact with the treated effluent is expected.

A 1981 lake study said no phosphorus limits were necessary. The 1990 TSI lake study recommended a 1-mg/L limit. No limits are recommended due to the 0.0024-MGD mean flow which is not significantly higher than the maximum small flow design.

Best Professional Judgment (BPJ) Limitations

Comments: *Dissolved Oxygen limitation of 4.0 mg/l and E.Coli monitoring is being added in accordance with the Department's SOP entitled "Establishing Effluent Limitations for Individual Sewage Permits". JCD*

Anti-Backsliding

Not appropriate

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	XXX	XXX	XXX	XXX	XXX	1/week	Measured
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/day	Grab
DO	XXX	XXX	4.0 Daily Min	XXX	XXX	XXX	1/day	Grab
TRC	XXX	XXX	XXX	0.5	XXX	1.6	1/day	Grab
CBOD5	XXX	XXX	XXX	25.0	XXX	50.0	2/month	8-Hr Composite
TSS	XXX	XXX	XXX	30.0	XXX	60.0	2/month	8-Hr Composite
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	Report	XXX	XXX	2/month	8-Hr Composite
Ammonia	XXX	XXX	XXX	Report	XXX	XXX	2/month	8-Hr Composite
Total Phosphorus	XXX	XXX	XXX	Report	XXX	XXX	2/month	8-Hr Composite

Compliance Sampling Location: Outfall 001 after disinfection