pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Northwest Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0210072**
Facility Type	**Non-Municipal**	APS ID	**1016746**
Major / Minor	**Minor**	Authorization ID	**1314974**

NPDES PERMIT FACT SHEET INDIVIDUAL SEWAGE

Applicant and Facility Information

Applicant Name	**YMCA of Greater Erie**	Facility Name	**Camp Sherwin**
Applicant Address	31 W 10th Street	Facility Address	8600 W Lake Road
	Erie, PA 16501-1401		Lake City, PA 16423-2104
Applicant Contact	Gerald Vandemerwe	Facility Contact	Tim Kaliszewski, Site Director
Applicant Phone	(814) 452-1432	Facility Phone	(814)-882-9137
Applicant E-mail	gvandemerwe@ymcaerie.org	Facility E-Mail	tkaliszewski@ymcaerie.org
Client ID	72018	Site ID	449093
Ch 94 Load Status	Not Overloaded	Municipality	Girard Township
Connection Status	No Limitations	County	Erie
Application Received	April 3, 2020	EPA Waived?	Yes
Application Accepted	May 30, 2020	If No, Reason	

Application Purpose: NPDES treated sewage discharge permit renewal/

Summary of Review

Seasonal campground with no reported current violations. The previous permit allowed for interim weekly DO, pH and TRC monitoring. This proposal re-imposes daily DO and disinfection monitoring and adds a new 4.0-mg/L BPJ minimum daily DO limit with daily monitoring.

Marginal low flow facility phosphorus compliance 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		William H. Mentzer William H. Mentzer, P.E. Environmental Engineering Specialist	July 20, 2020
X		Justin C. Dickey Justin C. Dickey, P.E. Environmental Engineer Manager	August 4, 2020

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	0.01
Latitude NHD	42º 2' 45.38"	Longitude NHD	-80º 17' 50.47"
Latitude DP	42° 2’ 45.56”	Longitude DP	80° 17’ 49.83”
Quad Name	Fairview	Quad Code	0203
Wastewater Description:	Treated campground domestic wastes		

Receiving Waters	Unnamed Tributary to Lake Erie	Stream Code	62484
NHD Com ID	123923022	NHD RMI	0.2000
Drainage Area	0.26	Yield (cfs/mi^2)	0.497
Q_{7-10} Flow (cfs)	0.13	Q_{7-10} Basis	Brandy Run
Elevation (ft)	636.67	Slope (ft/ft)	0.064
Watershed No.	15-A	Chapter 93 Class.	CWF, MF
Existing Use	Statewide	Existing Use Qualifier	none
Exceptions to Use	none	Exceptions to Criteria	none
Comments	Measured RMI 0.19. NHD lists the receiving waters as an unnamed tributary of Trout Run.		

Assessment Status	Attaining Use(s)		
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	City of Erie		
PWS Waters	Lake Erie	Flow at Intake (cfs)	
PWS RMI	915.04	Distance from Outfall (mi)	9.97

Changes Since Last Permit Issuance: none

Other Comments: No downstream water supply impairment is expected

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Treatment Facility Summary				
Treatment Facility Name: Camp Sherwin STP				
WQM Permit No.	**Issuance Date**			
2592403 A1	Aug 19, 2010			
Waste Type	**Degree of Treatment**	**Process Type**	**Disinfection**	**Avg Annual Flow (MGD)**
Sewage	Secondary With Ammonia And Phosphorus	Extended Aeration	Hypochlorite	0.01
Hydraulic Capacity (MGD)	**Organic Capacity (lbs/day)**	**Load Status**	**Biosolids Treatment**	**Biosolids Use/Disposal**
0.01		Not Overloaded	Aerobic Digestion	Other WWTP

Changes Since Last Permit Issuance: none

Other Comments: A 1 is for a sludge holding tank at an activated sludge facility

Aluminum sulfate used for phosphorus control.
Sodium hypochlorite used for disinfection

Parameter			**Mean**	**Min**	**Mean**	**Max**	**#**
Design Flow			**0.0100**				
Annual Flow		**2019**	**0.0029**				
		2018	**0.0033**				
		2017	**0.0032**				
High Month	**Sept**	**2019**	**0.0040**				
pH				**6.6**		**8.7**	**384**
TRC					**034**	**1.41**	**192**
F Coliform				**1**	**1**	**1**	**32**
COD5					**4.8**	**17.7**	**32**
TSS					**13.9**	**46**	**32**
Am					**3.7**	**18**	**32**
N					**17.1**	**<44.2**	**32**
P					**0.1**	**1.9**	**32**

Last year 1.5-tons dry sludge removed to the City of Erie WWTP

Compliance History

DMR Data for Outfall 001 (from June 1, 2019 to May 31, 2020)

Parameter	MAY-20	APR-20	MAR-20	FEB-20	JAN-20	DEC-19	NOV-19	OCT-19	SEP-19	AUG-19	JUL-19	JUN-19
Flow (MGD) Average Monthly	0.002	0.001	0.0003				0.003	0.001	0.004	0.003	0.003	0.004
pH (S.U.) Minimum	6.9	6.8	7.3				7.0	6.3	6.9	6.7	7.3	7.0
pH (S.U.) Maximum	7.4	7.4	7.5				8.4	7.3	7.7	7.8	7.9	7.9
DO (mg/L) Minimum	5.9	6.9	5.1				5.2	6.3	4.4	3.5	4.0	5.3
TRC (mg/L) Average Monthly	0.3	0.3	0.3				0.2	0.1	0.2	0.1	0.4	0.5
CBOD5 (mg/L) Average Monthly	6	< 4	< 4.0				< 4	< 4.0	< 4	< 4	< 4	< 4
TSS (mg/L) Average Monthly	24	6	7.5				11	17	12	5	8	10
Fecal Coliform (CFU/100 ml) Geometric Mean	< 1								< 1	< 1	< 1	< 1
Total Nitrogen (mg/L) Average Monthly	5.285	< 4.01	< 3.48				11.56	< 13.18	< 17.45	15.12	20.535	< 22.585
Ammonia (mg/L) Average Monthly	0.3							3.8	0.3	2.0	7.9	0.6
Total Phosphorus (mg/L) Average Monthly	0.8	0.3	0.6				0.9	1.1	0.9	0.3	0.6	1.0

Compliance History

Effluent Violations for Outfall 001, from: July 1, 2019 To: May 31, 2020

Parameter	Date	SBC	DMR Value	Units	Limit Value	Units
Total Phosphorus	10/31/19	Avg Mo	1.1	mg/L	1.0	mg/L

Summary of Inspections: none

Other Comments: Typical small flow phosphorus non-compliance

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** .01
Latitude 42º 2' 45.56" **Longitude** -80º 17' 49.83"
Wastewater Description: Sewage Effluent

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)
DO	4.0	Daily minimum		BPJ

Water Quality-Based Limitations

A "Reasonable Potential Analysis" through modelling previously identified CBOD5, P, DO, pH and ammonia for water quality-based regulation.

The following limitations were determined through water quality modeling (output files attached):

Parameter		Limit (mg/l)			SBC	Model		
Name	period	minimum	mean	maximum		minimum	mean	maximum
CBOD			25.0	50.0			25.0	50.0
Ammonia	Summer		9.0	18.0			8.59	17.18
	Winter		27.0	54.0			25.77	41.44
Phosphorus			1.0				1.0	
DO		4.0				4.0		

Comments:
No winter ammonia limits proposed as winter operation is limited and ammonia treatment is not necessary.
Phosphorus is a Lake Erie basin requirement.

Best Professional Judgment (BPJ) Limitations

Comments: DO only

Anti-Backsliding

Not necessary

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	9.0 Inst Max	XXX	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) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	2/month	Grab
Total Nitrogen	XXX	XXX	XXX	Report	XXX	XXX	2/month	8-Hr Composite
Ammonia May 1 - Oct 31	XXX	XXX	XXX	9.0	XXX	18.0	2/month	8-Hr Composite
Total Phosphorus	XXX	XXX	XXX	1.0	XXX	XXX	2/month	8-Hr Composite

Compliance Sampling Location: Outfall 001 after disinfection