

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

**NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE**

Application No. PA0094706
APS ID 351282
Authorization ID 1219310

Applicant and Facility Information

Applicant Name	<u>Economy Development Co. Inc.</u>	Facility Name	<u>Tri County Soccer & Sports Center STP</u>
Applicant Address	<u>1259 Freedom Crider Road</u> <u>Freedom, PA 15042-9318</u>	Facility Address	<u>1220 Freedom Crider Road</u> <u>Freedom, PA 15042</u>
Applicant Contact	<u>John Mauldin</u>	Facility Contact	<u>John Mauldin</u>
Applicant Phone	<u>(724) 774-1221</u>	Facility Phone	<u>(724) 774-1221</u>
Client ID	<u>74764</u>	Site ID	<u>250666</u>
Ch 94 Load Status	<u>Not Overloaded</u>	Municipality	<u>New Sewickley Township</u>
Connection Status		County	<u>Beaver</u>
Date Application Received	<u>March 5, 2018</u>	EPA Waived?	<u>Yes</u>
Date Application Accepted	<u>March 5, 2018</u>	If No, Reason	
Purpose of Application	<u>Renewal of NPDES Permit PA 0094706 for discharge of treated sewage</u>		

Summary of Review

This application is for a renewal of NPDES Permit PA0094706, which was previously issued on December 22, 2013.

Part II Permit No. 0485402, issued on November 6, 1985 approved the construction of an extended aeration plant to treat an average daily flow of 15,000 gpd. That permit was amended on December 14, 2001 to authorize installation of an erosion type de-chlorinator and contact tank. The plant consists of a comminutor, an aerated flow equalization tank, an aeration tank, clarifier, dosing tank, open sand filters, tablet chlorination, a de-chlorinator, and a sludge holding tank.

The plant has a discharge of 0.015 MGD to an UNT to North Fork Big Sewickley Creek, which is classified as Trout-Stock Fishery.

Since there have been no changes to the discharge or the receiving stream, the effluent limitations are based on the previously approved pollution report. The annual monitoring and reporting of Total Nitrogen and Total Phosphorous are re-imposed according to Chapter 92a.61. For pH, Dissolved Oxygen (DO), and TRC a monitoring frequency of "1/day" has been imposed. The effluent limits for pH, CBOD₅, TSS, NH₃ – N, and Fecal Coliform are kept the same from the previous permit. WQM6.3 was used to evaluate the Dissolved Oxygen, CBOD₅, and NH₃-N effluent limitations. The limits of TRC has been kept the same as the existing average monthly limit is below 0.1 mg/l, in which case a new TRC_CALC modeling is not required.

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		/s/ Harris Mahmud/ Permit Reviewer	November 30, 2019
X		/s/ Donald J. Leone, P.E. / Environmental Engineer Manager	12/2/2019

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.



Previous Pollution
Report

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	<u>001</u>	Design Flow (MGD)	<u>.015</u>
Latitude	<u>40° 40' 27"</u>	Longitude	<u>-80° 9' 33"</u>
Quad Name	<u>Baden</u>	Quad Code	<u>1304</u>
Wastewater Description: <u>Sewage Effluent</u>			
Receiving Waters	<u>North Fork Big Sewickley Creek</u>	Stream Code	<u>36614</u>
NHD Com ID	<u>99679020</u>	RMI	<u>0.87</u>
Drainage Area	<u>0.08 sq.mi.</u>	Yield (cfs/mi ²)	<u>0.0027</u>
Q ₇₋₁₀ Flow (cfs)	<u>0.0002</u>	Q ₇₋₁₀ Basis	<u>Traverse Creek at Raccoon Creek State Park, PA (Bulletin 12, page 425, #03107700)</u>
Elevation (ft)	<u>1100</u>	Slope (ft/ft)	<u>0.0269</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>Midland Borough Water Authority located on the Ohio River</u>		
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: Tri County Soccer & Sports Center STP				
WQM Permit No.		Issuance Date		
0485402		11/6/85		
0485402-A1		12/14/2001		
Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary	Extended Aeration	Tablet Chlorination with de-chlorinator	0.015
Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.015	25.5	Not Overloaded	Sludge Holding Tank	To Other Plant

Changes Since Last Permit Issuance: None

Other Comments: None

Compliance History	
Summary of DMRs:	The eDMR Report shows no violation of effluent limitations
Summary of Inspections:	A Compliance Check Report from Operation has been completed by Operations on 11/30/2019.

Other Comments: None

Compliance History

DMR Data for Outfall 001 (from October 1, 2018 to September 30, 2019)

Parameter	SEP-19	AUG-19	JUL-19	JUN-19	MAY-19	APR-19	MAR-19	FEB-19	JAN-19	DEC-18	NOV-18	OCT-18
Flow (MGD) Average Monthly	0.0019	0.0023	0.0023	0.0023	0.0020	0.0023	0.0024	0.0025	0.0024	0.0027	0.0022	0.0028
pH (S.U.) Minimum	7.8	7.6	7.7	8.0	7.5	7.6	7.6	8.4	8.0	8.0	8.1	7.9
pH (S.U.) Maximum	7.8	8.1	7.9	8.2	7.7	8.0	8.4	9.0	8.1	8.4	8.4	8.0
DO (mg/L) Minimum	8.3	9.0	8.8	8.8	8.2	9.8	9.8	8.5	7.3	7.8	9.1	7.9
TRC (mg/L) Average Monthly	0.01	0.02	0.015	0.02	0.01	0.006	0.003	0.01	0.01	0.002	0.01	0.02
TRC (mg/L) Instantaneous Maximum	0.03	0.03	0.02	0.03	0.01	0.02	0.01	0.02	0.02	0.01	0.02	0.03
CBOD5 (mg/L) Average Monthly	5.3	4.0	4.5	< 4.0	4	4.35	4.5	11.1	11.5	9.4	5.6	5
CBOD5 (mg/L) Instantaneous Maximum	6.6	4.0	5.0	4.1	4	4.7	4.7	12.8	16.1	10.1	5.6	7.3
TSS (mg/L) Average Monthly	< 5.0	< 5.0	< 5	5.0	5	< 5.0	6.8	11.3	11.5	13.5	5.75	11
TSS (mg/L) Instantaneous Maximum	< 5.0	< 5.0	< 5	< 5.0	5	< 5.0	8.5	13	18	17.0	6.5	20
Fecal Coliform (CFU/100 ml) Geometric Mean	3.8	5	1	6	4	1	< 1	< 1	< 1	3.3	3	1
Fecal Coliform (CFU/100 ml) Instantaneous Maximum	15	27	2	37	14	1	< 1	< 1	< 1	11	12	1
Total Nitrogen (mg/L) Daily Maximum										< 2.0		
Ammonia (mg/L) Average Monthly	< 0.30	< 0.30	< 0.3	< 0.30	< 0.3	< 0.30	< 0.30	< 0.3	< 0.6	1.4	< 0.30	0.2
Ammonia (mg/L) Instantaneous Maximum	< 0.30	< 0.30	< 0.3	0.30	< 0.3	< 0.30	< 0.30	< 0.3	< 0.9	1.8	< 0.30	0.3

Development of Effluent Limitations

Outfall No.	001	Design Flow (MGD)	0.015
Latitude	40° 40' 27"	Longitude	-80° 9' 33"
Wastewater Description: Sewage Effluent			

Technology-Based Limitations

Since there have been no changes to the discharge or the receiving stream, the effluent limitations are based on the previously approved pollution report. The annual monitoring and reporting of Total Nitrogen and Total Phosphorous are re-imposed according to Chapter 92a.61. For pH, Dissolved Oxygen (DO), and TRC a monitoring frequency of "1/day" has been imposed. The effluent limits for pH, CBOD₅, TSS, NH₃ – N, and Fecal Coliform are kept the same from the previous permit. WQM6.3 was used to evaluate the Dissolved Oxygen, CBOD₅, and NH₃-N effluent limitations. The limits of TRC has been kept the same as the existing average monthly limit is below 0.1 mg/l, in which case a new TRC_CALC modeling is not required.

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)

Comments: None

Water Quality-Based Limitations

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

Parameter	Limit (mg/l)	SBC	Model
Dissolved Oxygen	6.0	Minimum	WQM6.3
NH ₃ -N (5/1 – 10/31)	1.5	Average Monthly	WQM6.3
NH ₃ -N (11/1 – 4/30)	2.0	Average Monthly	WQM6.3
Total Residual Chlorine ¹	0.02	Average Monthly	TRC_Calc

¹ The Calc was done in the previous renewal of permit with 0.8 mg/l as chlorine demand of stream. But as the existing average monthly limit is below 0.1 mg/l, in which case a new TRC_CALC modeling is not required with 0.3 mg/l as chlorine demand of stream.

Monitoring of TN and TP

Nutrient monitoring is required to establish the nutrient load from the waste water treatment facility and the impacts that load may have on the quality of the receiving stream. Sewage discharges with design flows greater than 2,000 gpd require monitoring, at a minimum, for TN and TP in new and reissued permits.

Daily Monitoring

A monitoring frequency of once per year is considered acceptable. For pH, Dissolved Oxygen (DO), and TRC, a monitoring frequency of “1/day” has been imposed. In general, less frequent monitoring may be established only when the permittee demonstrates that there will be no discharge on the days when monitoring is not required. The permittee may remain in compliance with the permit by using a No Discharge on the “Daily Effluent Monitoring” supplemental form to identify the lack of discharge on a particular day.

Anti-Backsliding

None of the effluent limits imposed in this permit is less stringent than the previously imposed limits.

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)	0.015	XXX	XXX	XXX	XXX	XXX	2/month	Measured
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/day	Grab
DO	XXX	XXX	6.0 Inst Min	XXX	XXX	XXX	1/day	Grab
TRC	XXX	XXX	XXX	0.02	XXX	0.04	1/day	Grab
CBOD5	XXX	XXX	XXX	25	XXX	50	2/month	Grab
TSS	XXX	XXX	XXX	30	XXX	60	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
Total Nitrogen	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/year	Grab
Ammonia Nov 1 - Apr 30	XXX	XXX	XXX	2.0	XXX	4.0	2/month	Grab
Ammonia 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: Outfall 001
Other Comments: None