

Application Type Renewal  
Facility Type Municipal  
Major / Minor Minor

**NPDES PERMIT FACT SHEET  
INDIVIDUAL SEWAGE**

Application No. PA0222984  
APS ID 991375  
Authorization ID 1269935

**Applicant and Facility Information**

Applicant Name	<u>Spartansburg Borough</u>	Facility Name	<u>Spartansburg Borough STP</u>
Applicant Address	<u>P.O. Box 222</u> <u>Spartansburg, PA 16434-0222</u>	Facility Address	<u>Grade Road</u> <u>Spartansburg, PA 16434</u>
Applicant Contact	<u>Jamie Davis</u>	Facility Contact	<u>Matt Handley (Operator)</u>
Applicant Phone	<u>(814) 654-7451</u>	Facility Phone	<u>(814) 654-7451</u>
Client ID	<u>66457</u>	Site ID	<u>527232</u>
Ch 94 Load Status	<u>Not Overloaded</u>	Municipality	<u>Spartansburg Borough</u>
Connection Status	<u>No Limitations</u>	County	<u>Crawford</u>
Date Application Received	<u>March 19, 2019</u>	EPA Waived?	<u>Yes</u>
Date Application Accepted	<u>April 22, 2019</u>	If No, Reason	<u></u>
Purpose of Application	<u>Renewal of a NPDES Permit for an existing discharge of treated domestic sewage from a POTW</u>		

**Summary of Review**

No changes to the discharge quality or quantity were proposed as part of this permit renewal.

A Consent Assessment of Civil Penalty was executed on November 27, 2019, for a late application submission.

Facility was last inspected on May 24, 2017. No major issues were noted.

There are currently no open violations listed in EFACTS for this permittee (1/27/2020).

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		Adam J. Pesek, E.I.T. / Environmental Engineering Specialist	
X		Justin C. Dickey, P.E. / Environmental Engineer Manager	

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	<u>001</u>	Design Flow (MGD)	<u>0.06</u>
Latitude	<u>41° 49' 6.1"</u>	Longitude	<u>-79° 41' 17.3"</u>
Quad Name	<u>Spartansburg</u>	Quad Code	<u>0408</u>
Wastewater Description: <u>Treated domestic sewage</u>			
Receiving Waters	<u>East Branch Oil Creek</u>	Stream Code	<u>54496</u>
NHD Com ID	<u>100467633</u>	RMI	<u>10.7</u>
Drainage Area	<u>13.9</u>	Yield (cfs/mi <sup>2</sup> )	<u>0.106</u>
Q <sub>7-10</sub> Flow (cfs)	<u>1.47</u>	Q <sub>7-10</sub> Basis	<u>USGS #03020500</u>
Elevation (ft)	<u>1410</u>	Slope (ft/ft)	<u>0.00568</u>
Watershed No.	<u>16-E</u>	Chapter 93 Class.	<u>CWF</u>
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
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)	<u>7.55</u>	WQN 868 (1998-2004)	
Temperature (°C)	<u>20</u>	Default (CWF)	
Hardness (mg/L)	<u>71.6</u>	WQN 868 (1998-2004)	
Other: NH <sub>3</sub> -N	<u>0.1</u>	Default	
Nearest Downstream Public Water Supply Intake	<u>Aqua Pennsylvania, Inc. – Emlenton</u>		
PWS Waters	<u>Allegheny River</u>	Flow at Intake (cfs)	
PWS RMI	<u>90.0</u>	Distance from Outfall (mi)	<u>66</u>

Changes Since Last Permit Issuance:

Other Comments:

Treatment Facility Summary				
<b>Treatment Facility Name:</b> Spartansburg Borough				
<b>WQM Permit No.</b>		<b>Issuance Date</b>		
209414 A-1		11/02/2006		
<b>Waste Type</b>	<b>Degree of Treatment</b>	<b>Process Type</b>	<b>Disinfection</b>	<b>Avg Annual Flow (MGD)</b>
Sewage	Secondary	Extended Aeration	Chlorine With Dechlorination	0.06
<b>Hydraulic Capacity (MGD)</b>	<b>Organic Capacity (lbs/day)</b>	<b>Load Status</b>	<b>Biosolids Treatment</b>	<b>Biosolids Use/Disposal</b>
0.06	108	Not Overloaded	Aerobic Digestion / Reed Drying Bed	Landfill

Changes Since Last Permit Issuance:

Other Comments:

Compliance History

DMR Data for Outfall 001 (from December 1, 2018 to November 30, 2019)

Parameter	NOV-19	OCT-19	SEP-19	AUG-19	JUL-19	JUN-19	MAY-19	APR-19	MAR-19	FEB-19	JAN-19	DEC-18
Flow (MGD) Average Monthly	0.0236	0.0201	0.0202	0.0185	0.0207	0.0275	0.0194	0.0264	0.0257	0.0337	0.0297	0.0251
Flow (MGD) Daily Maximum	0.0343	0.0343	0.0386	0.0268	0.049	0.0496	0.0363	0.0404	0.0396	0.0721	0.062	0.0381
pH (S.U.) Minimum	6.4	6.6	6.6	6.6	6.5	6.5	6.5	6.4	6.5	6.5	6.5	6.5
pH (S.U.) Maximum	6.7	6.9	6.9	6.9	6.9	6.8	6.9	6.6	6.7	6.8	6.8	6.8
DO (mg/L) Minimum	6.9	7.0	6.8	6.6	6.0	5.8	5.9	5.2	6.8	7.0	6.1	5.0
TRC (mg/L) Average Monthly	0.03	0.03	0.03	0.04	0.03	0.05	0.04	0.03	0.04	0.03	0.03	0.02
TRC (mg/L) Instantaneous Maximum	0.05	0.05	0.08	0.09	0.06	0.08	0.07	0.06	0.09	0.06	0.08	0.04
CBOD5 (lbs/day) Average Monthly	< 1.1	< 0.7	< 0.7	< 0.9	< 0.6	< 1.4	< 0.6	< 5.7	0.8	< 1.4	2.2	1.0
CBOD5 (lbs/day) Weekly Average	1	< 0.8	< 1	< 0.9	< 0.7	2	< 0.8	10	< 0.8	< 2.0	2.0	< 1
CBOD5 (mg/L) Average Monthly	< 4.0	< 4.0	< 4	< 4	< 4.0	< 4	< 4	< 18	< 4.0	< 4.0	7	< 4.0
CBOD5 (mg/L) Weekly Average	4	< 4.0	< 4	< 4	< 4.0	5	< 4	31	< 4.0	< 4.0	10	< 4.0
BOD5 (lbs/day) Raw Sewage Influent   Average Monthly	42	35	17	34	22	53	24	31	14	33	34	26
BOD5 (lbs/day) Raw Sewage Influent   Daily Maximum	57	46	20	37	24	84	28	40	16	58	35	28
BOD5 (mg/L) Raw Sewage Influent   Average Monthly	157	206	100	156	168	159	165	103	74	78	106	107

**NPDES Permit Fact Sheet  
Spartansburg Borough STP**

**NPDES Permit No. PA0222984**

BOD5 (mg/L) Raw Sewage Influent   Daily Maximum	200	289	121	175	196	202	231	120	75	107	128	108
TSS (lbs/day) Average Monthly	5	< 1.0	< 0.9	< 2.0	< 1.0	4	< 0.9	< 5	< 1.0	< 2.0	3.0	< 1
TSS (lbs/day) Raw Sewage Influent   Average Monthly	32	32	8	44	23	50	18	18	9	18	18	22
TSS (lbs/day) Raw Sewage Influent   Daily Maximum	46	46	13	56	29	85	23	23	10	33	20	26
TSS (lbs/day) Weekly Average	5.2	1.3	1.3	2.0	1.7	5.6	< 1.0	7.7	1.5	< 2.7	3.8	< 1.3
TSS (mg/L) Average Monthly	19	< 7	< 5	< 7.0	< 7.0	11	< 6	< 14	< 6.0	< 5.0	11	< 5
TSS (mg/L) Raw Sewage Influent   Average Monthly	120	192	61.3	200	170	142	130	59	49	39.3	58.6	92
TSS (mg/L) Raw Sewage Influent   Daily Maximum	173	290	108	252	172	206	196	69	52	60	78.7	112
TSS (mg/L) Weekly Average	20	8	5	9.0	10	14	6	23	7.0	< 5.0	12	< 5
Fecal Coliform (CFU/100 ml) Geometric Mean	8	< 1	< 1	2	< 1.0	< 2	< 2	< 49	1	< 3.0	< 1.0	< 1.0
Total Nitrogen (lbs/day) Average Quarterly			< 6.0			< 0.9			< 3.5			0.7
Total Nitrogen (mg/L) Average Quarterly			< 28.38			< 7.4			< 2			< 3.5
Ammonia (lbs/day) Average Quarterly			< 0.07			< 0.04			< 0.2			< 0.2
Ammonia (mg/L) Average Quarterly			< 0.30			< 0.3			< 0.30			< 0.9
Total Phosphorus (lbs/day) Average Quarterly			1.0			0.4			0.077			0.04
Total Phosphorus (mg/L) Average Quarterly			5.54			3.68			0.04			0.198

**Development of Effluent Limitations**

**Outfall No.** 001  
**Latitude** 41° 49' 6.10"  
**Wastewater Description:** Treated Domestic Sewage  
**Design Flow (MGD)** 0.06  
**Longitude** -79° 41' 17.30"

**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:

**Water Quality-Based Limitations**

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

Parameter	Limit (mg/l)	SBC	Model
Total Residual Chlorine	1.2	IMAX	Old TRC Spreadsheet

Comments:

**Best Professional Judgment (BPJ) Limitations**

Comments: Influent monitoring for TSS and BOD<sub>5</sub> are placed in the permit in accordance with the Department's SOP entitled "New and Reissuance Sewage Individual NPDES Permit Applications."

A dissolved oxygen limit of a daily minimum of 4.0 mg/l and monitoring ammonia nitrogen, total nitrogen, and total phosphorus is being placed in the permit in accordance with the Department's SOP entitled "Establishing Effluent Limitations for Individual Sewage Permits."

**Anti-Backsliding**

N/A

**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) <sup>(1)</sup>		Concentrations (mg/L)				Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type
	Average Monthly	Weekly Average	Minimum	Average Monthly	Weekly Average	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	Continuous	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	0.5	XXX	1.2	1/day	Grab
CBOD5	12.5	20	XXX	25	40	50	2/month	24-Hr Composite
BOD5 Raw Sewage Influent	Report	Report Daily Max	XXX	Report	XXX	XXX	2/month	24-Hr Composite
TSS	15	22.5	XXX	30	45	60	2/month	24-Hr Composite
TSS Raw Sewage Influent	Report	Report Daily Max	XXX	Report	XXX	XXX	2/month	24-Hr Composite
Fecal Coliform (CFU/100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	2/month	Grab
Fecal Coliform (CFU/100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	2/month	Grab
Total Nitrogen	Report Avg Qrtly	XXX	XXX	Report Avg Qrtly	XXX	XXX	1/quarter	24-Hr Composite
Ammonia	Report Avg Qrtly	XXX	XXX	Report Avg Qrtly	XXX	XXX	1/quarter	24-Hr Composite

Outfall 001 , Continued (from 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	Weekly Average	Minimum	Average Monthly	Weekly Average	Instant. Maximum		
Total Phosphorus	Report Avg Qrtly	XXX	XXX	Report Avg Qrtly	XXX	XXX	1/quarter	24-Hr Composite

Compliance Sampling Location: Outfall 001 (after disinfection)

Other Comments:



ATTACHMENT A



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*Figure 1 - WQM 7.0 Modeling*



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*Figure 2 - TRC Evaluation*



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*Figure 3 - Discharge pH*