STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER RESOURCES
Water-Based Systems
William R. Snodgrass - Tennessee Tower
312 Rosa L. Parks Avenue, 11th Floor
Nashville, TN 37243-1102

PERMIT CONTACT INFORMATION

Please complete all sections. If one person serves multiple functions, please repeat this information in each section.

PERMIT NUMBER: TN0024988 **DATE:** 01/12/2022

PERMITTED FACILITY: Town of Alamo STP **COUNTY:** Crockett

OFFICIAL PERMIT CONTACT:

(The permit signatory authority, e.g. responsible corporate officer, principle executive officer or ranking elected official)

Official Contact: John Avery Emison	Title or Position: Mayor		
Mailing Address: 97 S. Johnson St.	City: Alamo	State: TN	Zip: 38001
Phone number(s): 731-696-4515	E-mail: johnaveryemison@yahoo.com		

PERMIT BILLING ADDRESS (where invoices should be sent):

Billing Contact: Amanda Harris	Title or Position: City Recorder		
Mailing Address: 97 S. Johnson St.	City: Alamo	State: TN	Zip: 38001
Phone number(s): 731-696-4515	E-mail: amandaharris.38001@gmail.com		

FACILITY LOCATION (actual location of permit site and local contact for site activity):

Facility Location Contact: Will Perry	Title or Position: Wastewater Operator		
Facility Location (physical street address): 925 HWY 54 North	City: Alamo	State: TN	Zip: 38001
Phone number(s): 731-414-7120	E-mail: will010274@gmail.com		

Alternate Contact (if desired):	Title or Position:		
Mailing Address:	City:	State:	Zip:
Phone number(s):	E-mail:		

FACILITY REPORTING (Discharge Monitoring Report (DMR) or other reporting):

Cognizant Official authorized for permit reporting: Will Perry	Title or Position: Wastewater Operator		
Mailing Address: 97 S. Johnson St.	City: Alamo	State: TN	Zip: 38001
Phone number(s): 731-414-7120	E-mail: will010274@gmail.com		
Fax number for reporting:	Does the facility have interest in starting electronic DMR reporting? Yes No		

EPA Identification Number	NPDES Permit Number	Facility Name	Form Approved 03/05/19 OMB No. 2040-0004
	TN0024988	Town of Alamo STP	

Form 2A NPDES | EPA

U.S. Environmental Protection Agency
Application for NPDES Permit to Discharge Wastewater
NEW AND EXISTING PUBLICLY OWNED TREATMENT WORKS

SECTION 1. BASIC APPLICATION INFORMATION FOR ALL APPLICANTS (40 CFR 122.21(j)(1) and (9))

Facility Information

1.1 Facility name
Town of Alamo STP

Mailing address (street or P.O. box)
97 South Johnson St

City or town	State	ZIP code
Alamo	TN	38001

Contact name (first and last)	Title	Phone number	Email address
Will Perry	Wastewater Operator	(731) 414-7120	will010274@gmail.com

Location address (street, route number, or other specific identifier) ☐ Same as mailing address
925 Hwy 54 North

City or town	State	ZIP code
Alamo	TN	38001

1.2 Is this application for a facility that has yet to commence discharge?
☐ Yes ➔ See instructions on data submission requirements for new dischargers. ☑ No

Applicant Information

1.3 Is applicant different from entity listed under Item 1.1 above?
☑ Yes ☐ No ➔ SKIP to Item 1.4.

Applicant name
Town of Alamo

Applicant address (street or P.O. box)
97 South Johnson St

City or town	State	ZIP code
Alamo	TN	38001

Contact name (first and last)	Title	Phone number	Email address
John Avery Emison	Mayor	(731) 696-4515	johnaveryemison@yahoo.com

1.4 Is the applicant the facility's owner, operator, or both? (Check only one response.)
☐ Owner ☐ Operator ☑ Both

1.5 To which entity should the NPDES permitting authority send correspondence? (Check only one response.)
☐ Facility ☐ Applicant ☑ Facility and applicant (they are one and the same)

Existing Environmental Permits

1.6 Indicate below any existing environmental permits. (Check all that apply and print or type the corresponding permit number for each.)

Existing Environmental Permits

☑ NPDES (discharges to surface water) 0024988	☐ RCRA (hazardous waste)	☐ UIC (underground injection control)
☐ PSD (air emissions)	☐ Nonattainment program (CAA)	☐ NESHAPs (CAA)
☐ Ocean dumping (MPRSA)	☐ Dredge or fill (CWA Section 404)	☐ Other (specify)

Collection System and Population Served

1.7 Provide the collection system information requested below for the treatment works.

Municipality Served	Population Served	Collection System Type (indicate percentage)	Ownership Status
Town of Alamo	2500	100 % separate sanitary sewer	☑ Own ☑ Maintain
		____ % combined storm and sanitary sewer	☐ Own ☐ Maintain
		☐ Unknown	☐ Own ☐ Maintain
		____ % separate sanitary sewer	☐ Own ☐ Maintain
		____ % combined storm and sanitary sewer	☐ Own ☐ Maintain
		☐ Unknown	☐ Own ☐ Maintain
		____ % separate sanitary sewer	☐ Own ☐ Maintain
		____ % combined storm and sanitary sewer	☐ Own ☐ Maintain
		☐ Unknown	☐ Own ☐ Maintain
		____ % separate sanitary sewer	☐ Own ☐ Maintain
		____ % combined storm and sanitary sewer	☐ Own ☐ Maintain
		☐ Unknown	☐ Own ☐ Maintain
Total Population Served	2500		

	Separate Sanitary Sewer System	Combined Storm and Sanitary Sewer
Total percentage of each type of sewer line (in miles)	100 %	0 %

Indian Country

1.8 Is the treatment works located in Indian Country?

☐ Yes ☑ No

1.9 Does the facility discharge to a receiving water that flows through Indian Country?

☐ Yes ☑ No

Design and Actual Flow Rates

1.10 Provide design *and* actual flow rates in the designated spaces.

Design Flow Rate
0.4 mgd

Annual Average Flow Rates (Actual)		
Two Years Ago	**Last Year**	**This Year**
0.434 mgd	0.394 mgd	0.381 mgd

Maximum Daily Flow Rates (Actual)		
Two Years Ago	**Last Year**	**This Year**
1.458 mgd	1.347 mgd	1.495 mgd

Discharge Points by Type

1.11 Provide the total number of effluent discharge points to waters of the United States by type.

Total Number of Effluent Discharge Points by Type				
Treated Effluent	**Untreated Effluent**	**Combined Sewer Overflows**	**Bypasses**	**Constructed Emergency Overflows**
1	0	0	0	0

Outfalls and Other Discharge or Disposal Methods

Outfalls Other Than to Waters of the United States

1.12 Does the POTW discharge wastewater to basins, ponds, or other surface impoundments that do not have outlets for discharge to waters of the United States?

☐ Yes ☑ No ➔ SKIP to Item 1.14.

1.13 Provide the location of each surface impoundment and associated discharge information in the table below.

Surface Impoundment Location and Discharge Data

Location	Average Daily Volume Discharged to Surface Impoundment	Continuous or Intermittent (check one)
	gpd	☐ Continuous ☐ Intermittent
	gpd	☐ Continuous ☐ Intermittent
	gpd	☐ Continuous ☐ Intermittent

1.14 Is wastewater applied to land?

☐ Yes ☑ No ➔ SKIP to Item 1.16.

1.15 Provide the land application site and discharge data requested below.

Land Application Site and Discharge Data

Location	Size	Average Daily Volume Applied	Continuous or Intermittent (check one)
	acres	gpd	☐ Continuous ☐ Intermittent
	acres	gpd	☐ Continuous ☐ Intermittent
	acres	gpd	☐ Continuous ☐ Intermittent

1.16 Is effluent transported to another facility for treatment prior to discharge?

☐ Yes ☑ No ➔ SKIP to Item 1.21.

1.17 Describe the means by which the effluent is transported (e.g., tank truck, pipe).

1.18 Is the effluent transported by a party other than the applicant?

☐ Yes ☐ No ➔ SKIP to Item 1.20.

1.19 Provide information on the transporter below.

Transporter Data

Entity name	Mailing address (street or P.O. box)	
City or town	State	ZIP code
Contact name (first and last)	Title	
Phone number	Email address	

Outfalls and Other Discharge or Disposal Methods Continued

1.20 In the table below, indicate the name, address, contact information, NPDES number, and average daily flow rate of the receiving facility.

Receiving Facility Data

Facility name	Mailing address (street or P.O. box)	
City or town	State	ZIP code
Contact name (first and last)	Title	
Phone number	Email address	
NPDES number of receiving facility (if any) ☐ None	Average daily flow rate mgd	

1.21 Is the wastewater disposed of in a manner other than those already mentioned in Items 1.14 through 1.21 that do not have outlets to waters of the United States (e.g., underground percolation, underground injection)?

☐ Yes ☑ No ➔ SKIP to Item 1.23.

1.22 Provide information in the table below on these other disposal methods.

Information on Other Disposal Methods

Disposal Method Description	Location of Disposal Site	Size of Disposal Site	Annual Average Daily Discharge Volume	Continuous or Intermittent (check one)
		acres	gpd	☐ Continuous ☐ Intermittent
		acres	gpd	☐ Continuous ☐ Intermittent
		acres	gpd	☐ Continuous ☐ Intermittent

Variance Requests

1.23 Do you intend to request or renew one or more of the variances authorized at 40 CFR 122.21(n)? (Check all that apply. Consult with your NPDES permitting authority to determine what information needs to be submitted and when.)

☐ Discharges into marine waters (CWA Section 301(h))

☐ Water quality related effluent limitation (CWA Section 302(b)(2))

☑ Not applicable

Contractor Information

1.24 Are any operational or maintenance aspects (related to wastewater treatment and effluent quality) of the treatment works the responsibility of a contractor?

☐ Yes ☑ No ➔ SKIP to Section 2.

1.25 Provide location and contact information for each contractor in addition to a description of the contractor's operational and maintenance responsibilities.

Contractor Information

	Contractor 1	Contractor 2	Contractor 3
Contractor name (company name)			
Mailing address (street or P.O. box)			
City, state, and ZIP code			
Contact name (first and last)			
Phone number			
Email address			
Operational and maintenance responsibilities of contractor			

EPA Identification Number	NPDES Permit Number	Facility Name	Form Approved 03/05/19 OMB No. 2040-0004
	TN0024988	Town of Alamo STP	

SECTION 2. ADDITIONAL INFORMATION (40 CFR 122.21(j)(1) and (2))

Design Flow

Outfalls to Waters of the United States

2.1 Does the treatment works have a design flow greater than or equal to 0.1 mgd?

☑ Yes ☐ No ➔ SKIP to Section 3.

Inflow and Infiltration

2.2 Provide the treatment works' current average daily volume of inflow and infiltration.

Average Daily Volume of Inflow and Infiltration
100000 gpd

Indicate the steps the facility is taking to minimize inflow and infiltration.

Smoke testing, video, spot repair and relined sewer line trouble spots. Applying for funds to start future sewer rehab.

Topographic Map

2.3 Have you attached a topographic map to this application that contains all the required information? (See instructions for specific requirements.)

☑ Yes ☐ No

Flow Diagram

2.4 Have you attached a process flow diagram or schematic to this application that contains all the required information? (See instructions for specific requirements.)

☑ Yes ☐ No

Scheduled Improvements and Schedules of Implementation

2.5 Are improvements to the facility scheduled?

☐ Yes ☑ No ➔ SKIP to Section 3.

Briefly list and describe the scheduled improvements.

1. We do have a future rehab project for the wastewater treatment plant in process . SEE ATTACHMENTS.

2.

3.

4.

2.6 Provide scheduled or actual dates of completion for improvements.

Scheduled or Actual Dates of Completion for Improvements

Scheduled Improvement (from above)	Affected Outfalls (list outfall number)	Begin Construction (MM/DD/YYYY)	End Construction (MM/DD/YYYY)	Begin Discharge (MM/DD/YYYY)	Attainment of Operational Level (MM/DD/YYYY)
1.					
2.					
3.					
4.					

2.7 Have appropriate permits/clearances concerning other federal/state requirements been obtained? Briefly explain your response.

☑ Yes ☐ No ☐ None required or applicable

Explanation:

EPA Identification Number	NPDES Permit Number	Facility Name	Form Approved 03/05/19 OMB No. 2040-0004
	TN0024988	Town of Alamo STP	

SECTION 3. INFORMATION ON EFFLUENT DISCHARGES (40 CFR 122.21(j)(3) to (5))

Description of Outfalls

3.1 Provide the following information for each outfall. (Attach additional sheets if you have more than three outfalls.)

	Outfall Number 001	Outfall Number ____	Outfall Number ____
State	Tennessee		
County	Crockett		
City or town	Alamo		
Distance from shore	0 ft.	ft.	ft.
Depth below surface	0 ft.	ft.	ft.
Average daily flow rate	0.403 mgd	mgd	mgd
Latitude	35° 47′ 53.1″ N	° ′ ″	° ′ ″
Longitude	-89° 07′ 05,1″ W	° ′ ″	° ′ ″

Seasonal or Periodic Discharge Data

3.2 Do any of the outfalls described under Item 3.1 have seasonal or periodic discharges?

☐ Yes ☑ No ➔ SKIP to Item 3.4.

3.3 If so, provide the following information for each applicable outfall.

	Outfall Number ____	Outfall Number ____	Outfall Number ____
Number of times per year discharge occurs			
Average duration of each discharge (specify units)			
Average flow of each discharge	mgd	mgd	mgd
Months in which discharge occurs			

Diffuser Type

3.4 Are any of the outfalls listed under Item 3.1 equipped with a diffuser?

☐ Yes ☑ No ➔ SKIP to Item 3.6.

3.5 Briefly describe the diffuser type at each applicable outfall.

Outfall Number ____	Outfall Number ____	Outfall Number ____

Waters of the U.S.

3.6 Does the treatment works discharge or plan to discharge wastewater to waters of the United States from one or more discharge points?

☑ Yes ☐ No ➔ SKIP to Section 6.

Receiving Water Description

3.7 Provide the receiving water and related information (if known) for each outfall.

	Outfall Number 001	Outfall Number _____	Outfall Number _____
Receiving water name	Unnamed tributary to Back Cr		
Name of watershed, river, or stream system	Forked Deer-North Fork		
U.S. Soil Conservation Service 14-digit watershed code			
Name of state management/river basin	Forked Deer		
U.S. Geological Survey 8-digit hydrologic cataloging unit code	08010204		
Critical low flow (acute)	0 cfs	cfs	cfs
Critical low flow (chronic)	0 cfs	cfs	cfs
Total hardness at critical low flow	mg/L of $CaCO_3$	mg/L of $CaCO_3$	mg/L of $CaCO_3$

Treatment Description

3.8 Provide the following information describing the treatment provided for discharges from each outfall.

	Outfall Number 001	Outfall Number _____	Outfall Number _____
Highest Level of Treatment (check all that apply per outfall)	☐ Primary ☐ Equivalent to secondary ☑ Secondary ☐ Advanced ☐ Other (specify) _____	☐ Primary ☐ Equivalent to secondary ☐ Secondary ☐ Advanced ☐ Other (specify) _____	☐ Primary ☐ Equivalent to secondary ☐ Secondary ☐ Advanced ☐ Other (specify) _____
Design Removal Rates by Outfall			
BOD_5 or $CBOD_5$	85 %	%	%
TSS	85 %	%	%
Phosphorus	☑ Not applicable %	☐ Not applicable %	☐ Not applicable %
Nitrogen	☑ Not applicable %	☐ Not applicable %	☐ Not applicable %
Other (specify) _____	☑ Not applicable %	☐ Not applicable %	☐ Not applicable %

Treatment Description Continued

3.9 Describe the type of disinfection used for the effluent from each outfall in the table below. If disinfection varies by season, describe below.

	Outfall Number 001	Outfall Number _____	Outfall Number _____
Disinfection type	Liquid Bleach - 12%		
Seasons used	all		
Dechlorination used?	☐ Not applicable ☑ Yes ☐ No	☐ Not applicable ☐ Yes ☐ No	☐ Not applicable ☐ Yes ☐ No

Effluent Testing Data

3.10 Have you completed monitoring for all Table A parameters and attached the results to the application package?

☑ Yes ☐ No

3.11 Have you conducted any WET tests during the 4.5 years prior to the date of the application on any of the facility's discharges or on any receiving water near the discharge points?

☐ Yes ☑ No ➔ SKIP to Item 3.13.

3.12 Indicate the number of acute and chronic WET tests conducted since the last permit reissuance of the facility's discharges by outfall number or of the receiving water near the discharge points.

	Outfall Number _____		Outfall Number _____		Outfall Number _____	
	Acute	Chronic	Acute	Chronic	Acute	Chronic
Number of tests of discharge water						
Number of tests of receiving water						

3.13 Does the treatment works have a design flow greater than or equal to 0.1 mgd?

☑ Yes ☐ No ➔ SKIP to Item 3.16.

3.14 Does the POTW use chlorine for disinfection, use chlorine elsewhere in the treatment process, or otherwise have reasonable potential to discharge chlorine in its effluent?

☑ Yes ➔ Complete Table B, including chlorine. ☐ No ➔ Complete Table B, omitting chlorine.

3.15 Have you completed monitoring for all applicable Table B pollutants and attached the results to this application package?

☑ Yes ☐ No

3.16 Does one or more of the following conditions apply?

- The facility has a design flow greater than or equal to 1 mgd.
- The POTW has an approved pretreatment program or is required to develop such a program.
- The NPDES permitting authority has informed the POTW that it must sample for the parameters in Table C, must sample other additional parameters (Table D), or submit the results of WET tests for acute or chronic toxicity for each of its discharge outfalls (Table E).

☐ Yes ➔ Complete Tables C, D, and E as applicable. ☑ No ➔ SKIP to Section 4.

3.17 Have you completed monitoring for all applicable Table C pollutants and attached the results to this application package?

☐ Yes ☐ No

3.18 Have you completed monitoring for all applicable Table D pollutants required by your NPDES permitting authority and attached the results to this application package?

☐ Yes ☐ No additional sampling required by NPDES permitting authority.

Effluent Testing Data Continued

3.19 Has the POTW conducted either (1) minimum of four quarterly WET tests for one year preceding this permit application or (2) at least four annual WET tests in the past 4.5 years?

☐ Yes ☐ No ➔ Complete tests and Table E and SKIP to Item 3.26.

3.20 Have you previously submitted the results of the above tests to your NPDES permitting authority?

☐ Yes ☐ No ➔ Provide results in Table E and SKIP to Item 3.26.

3.21 Indicate the dates the data were submitted to your NPDES permitting authority and provide a summary of the results.

Date(s) Submitted (MM/DD/YYYY)	Summary of Results

3.22 Regardless of how you provided your WET testing data to the NPDES permitting authority, did any of the tests result in toxicity?

☐ Yes ☐ No ➔ SKIP to Item 3.26.

3.23 Describe the cause(s) of the toxicity:

3.24 Has the treatment works conducted a toxicity reduction evaluation?

☐ Yes ☐ No ➔ SKIP to Item 3.26.

3.25 Provide details of any toxicity reduction evaluations conducted.

3.26 Have you completed Table E for all applicable outfalls and attached the results to the application package?

☐ Yes ☐ Not applicable because previously submitted information to the NPDES permitting authority.

SECTION 4. INDUSTRIAL DISCHARGES AND HAZARDOUS WASTES (40 CFR 122.21(j)(6) and (7))

Industrial Discharges and Hazardous Wastes

4.1 Does the POTW receive discharges from SIUs or NSCIUs?

☐ Yes ☑ No ➔ SKIP to Item 4.7.

4.2 Indicate the number of SIUs and NSCIUs that discharge to the POTW.

Number of SIUs	Number of NSCIUs

4.3 Does the POTW have an approved pretreatment program?

☐ Yes ☐ No

4.4 Have you submitted either of the following to the NPDES permitting authority that contains information substantially identical to that required in Table F: (1) a pretreatment program annual report submitted within one year of the application or (2) a pretreatment program?

☐ Yes ☐ No ➔ SKIP to Item 4.6.

4.5 Identify the title and date of the annual report or pretreatment program referenced in Item 4.4. SKIP to Item 4.7.

4.6 Have you completed and attached Table F to this application package?

☐ Yes ☐ No

Industrial Discharges and Hazardous Wastes Continued

4.7 Does the POTW receive, or has it been notified that it will receive, by truck, rail, or dedicated pipe, any wastes that are regulated as RCRA hazardous wastes pursuant to 40 CFR 261?

☐ Yes ☑ No ➔ SKIP to Item 4.9.

4.8 If yes, provide the following information:

Hazardous Waste Number	Waste Transport Method (check all that apply)	Annual Amount of Waste Received	Units
	☐ Truck ☐ Rail ☐ Dedicated pipe ☐ Other (specify) _____		
	☐ Truck ☐ Rail ☐ Dedicated pipe ☐ Other (specify) _____		
	☐ Truck ☐ Rail ☐ Dedicated pipe ☐ Other (specify) _____		

4.9 Does the POTW receive, or has it been notified that it will receive, wastewaters that originate from remedial activities, including those undertaken pursuant to CERCLA and Sections 3004(7) or 3008(h) of RCRA?

☐ Yes ☑ No ➔ SKIP to Section 5.

4.10 Does the POTW receive (or expect to receive) less than 15 kilograms per month of non-acute hazardous wastes as specified in 40 CFR 261.30(d) and 261.33(e)?

☐ Yes ➔ SKIP to Section 5. ☐ No

4.11 Have you reported the following information in an attachment to this application: identification and description of the site(s) or facility(ies) at which the wastewater originates; the identities of the wastewater's hazardous constituents; and the extent of treatment, if any, the wastewater receives or will receive before entering the POTW?

☐ Yes ☐ No

SECTION 5. COMBINED SEWER OVERFLOWS (40 CFR 122.21(j)(8))

CSO Map and Diagram

5.1 Does the treatment works have a combined sewer system?

☐ Yes ☑ No ➔SKIP to Section 6.

5.2 Have you attached a CSO system map to this application? (See instructions for map requirements.)

☐ Yes ☐ No

5.3 Have you attached a CSO system diagram to this application? (See instructions for diagram requirements.)

☐ Yes ☐ No

CSO Outfall Description

5.4 For each CSO outfall, provide the following information. (Attach additional sheets as necessary.)

	CSO Outfall Number ____	CSO Outfall Number ____	CSO Outfall Number ____
City or town			
State and ZIP code			
County			
Latitude	° ' "	° ' "	° ' "
Longitude	° ' "	° ' "	° ' "
Distance from shore	ft.	ft.	ft.
Depth below surface	ft.	ft.	ft.

CSO Monitoring

5.5 Did the POTW monitor any of the following items in the past year for its CSO outfalls?

	CSO Outfall Number ____	CSO Outfall Number ____	CSO Outfall Number ____
Rainfall	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
CSO flow volume	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
CSO pollutant concentrations	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Receiving water quality	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
CSO frequency	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Number of storm events	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No

CSO Events in Past Year

5.6 Provide the following information for each of your CSO outfalls.

	CSO Outfall Number ____	CSO Outfall Number ____	CSO Outfall Number ____
Number of CSO events in the past year	events	events	events
Average duration per event	hours ☐ Actual or ☐ Estimated	hours ☐ Actual or ☐ Estimated	hours ☐ Actual or ☐ Estimated
Average volume per event	million gallons ☐ Actual or ☐ Estimated	million gallons ☐ Actual or ☐ Estimated	million gallons ☐ Actual or ☐ Estimated
Minimum rainfall causing a CSO event in last year	inches of rainfall ☐ Actual or ☐ Estimated	inches of rainfall ☐ Actual or ☐ Estimated	inches of rainfall ☐ Actual or ☐ Estimated

CSO Receiving Waters

5.7 Provide the information in the table below for each of your CSO outfalls.

	CSO Outfall Number ____	CSO Outfall Number ____	CSO Outfall Number ____
Receiving water name			
Name of watershed/ stream system			
U.S. Soil Conservation Service 14-digit watershed code (if known)	☐ Unknown	☐ Unknown	☐ Unknown
Name of state management/river basin			
U.S. Geological Survey 8-Digit Hydrologic Unit Code (if known)	☐ Unknown	☐ Unknown	☐ Unknown
Description of known water quality impacts on receiving stream by CSO (see instructions for examples)			

SECTION 6. CHECKLIST AND CERTIFICATION STATEMENT (40 CFR 122.22(a) and (d))

Checklist and Certification Statement

6.1 In Column 1 below, mark the sections of Form 2A that you have completed and are submitting with your application. For each section, specify in Column 2 any attachments that you are enclosing to alert the permitting authority. Note that not all applicants are required to provide attachments.

Column 1	Column 2	
☑ Section 1: Basic Application Information for All Applicants	☐ w/ variance request(s)	☐ w/ additional attachments
☑ Section 2: Additional Information	☑ w/ topographic map ☐ w/ additional attachments	☑ w/ process flow diagram
☑ Section 3: Information on Effluent Discharges	☑ w/ Table A ☑ w/ Table B ☐ w/ Table C	☐ w/ Table D ☐ w/ Table E ☐ w/ additional attachments
☐ Section 4: Industrial Discharges and Hazardous Wastes	☐ w/ SIU and NSCIU attachments ☐ w/ additional attachments	☐ w/ Table F
☐ Section 5: Combined Sewer Overflows	☐ w/ CSO map ☐ w/ CSO system diagram	☐ w/ additional attachments
☑ Section 6: Checklist and Certification Statement	☑ w/ attachments	

6.2 **Certification Statement**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name (print or type first and last name)	Official title
John Avery Emison	Mayor
Signature: John Avery Emison	Date signed: 01-13-2022

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
	TN0024988	Town of Alamo STP	001

Form Approved 03/05/19
OMB No. 2040-0004

TABLE A. EFFLUENT PARAMETERS FOR ALL POTWS

Pollutant	Maximum Daily Discharge		Average Daily Discharge			Analytical Method[1]	ML or MDL (include units)
	Value	Units	Value	Units	Number of Samples		
Biochemical oxygen demand ☐ BOD_5 or ☑ $CBOD_5$ (report one)	31.0	mg/L	8.09	mg/L	84	SM5210B 2011	1.0 mg/l ☐ ML ☑ MDL
Fecal coliform	770.1	MPN/100 mL	70.1	MPN/100 mL	84	SM9223B	MPN/1.0 ☐ ML ☑ MDL
Design flow rate	1.458	MGD	0.403	MGD	1095		
pH (minimum)	6.67	SU					
pH (maximum)	8.07	SU					
Temperature (winter)		NA		NA			
Temperature (summer)		NA		NA			
Total suspended solids (TSS)	24.0	mg/L	4.28	mg/L	84	SM2540D 2011	1.0 mg/L ☐ ML ☑ MDL

[1] Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
	TN0024988	Town of Alamo STP	001

Form Approved 03/05/19
OMB No. 2040-0004

TABLE B. EFFLUENT PARAMETERS FOR ALL POTWS WITH A FLOW EQUAL TO OR GREATER THAN 0.1 MGD

Pollutant	Maximum Daily Discharge		Average Daily Discharge			Analytical Method[1]	ML or MDL (include units)
	Value	Units	Value	Units	Number of Samples		
Ammonia (as N)	15.30	mg/L	4.71	mg/L	84	SM4500 NH3D 2011	0.2 mg/l ☐ ML ☑ MDL
Chlorine (total residual, TRC)[2]	0.02	mg/L	0.01	mg/L	140	SM4500 ClG - 2011	0.01 mg/l ☐ ML ☑ MDL
Dissolved oxygen	10.52	mg/L	7.97	mg/L	140	SM4500 OG -2011	0.5 mg/l ☐ ML ☑ MDL
Nitrate/nitrite	8.15	mg/L	3.28	mg/L	3	epa -353.2	0.2 mg/l ☐ ML ☑ MDL
Kjeldahl nitrogen	6.24	mg/L	3.97	mg/L	3	epa-351.2	0.5 mg/l ☐ ML ☑ MDL
Oil and grease	1.9	mg/L	1.76	mg/L	3	epa 1664b	1.4 mg/l ☐ ML ☑ MDL
Phosphorus	4.79	mg/L	1.71	mg/L	28	epa-365.1	0.2 mg/l ☐ ML ☑ MDL
Total dissolved solids	250	mg/L	172	mg/L	3	SM-2540 C 2011	20.0 mg/l ☐ ML ☑ MDL

[1] Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

[2] Facilities that do not use chlorine for disinfection, do not use chlorine elsewhere in the treatment process, and have no reasonable potential to discharge chlorine in their effluent are not required to report data for chlorine.

EPA Identification Number	NPDES Permit Number	Facility Name	Form Approved 03/05/19 OMB No. 2040-0004
	TN0024988	Town of Alamo STP	

Form 2A NPDES

U.S. Environmental Protection Agency
Application for NPDES Permit to Discharge Wastewater
NEW AND EXISTING PUBLICLY OWNED TREATMENT WORKS

SECTION 1. BASIC APPLICATION INFORMATION FOR ALL APPLICANTS (40 CFR 122.21(j)(1) and (9))

Facility Information

1.1 Facility name
Town of Alamo STP

Mailing address (street or P.O. box)
97 South Johnson St

City or town	State	ZIP code
Alamo	TN	38001

Contact name (first and last)	Title	Phone number	Email address
Will Perry	Wastewater Operator	(731) 414-7120	will010274@gmail.com

Location address (street, route number, or other specific identifier) ☐ Same as mailing address
925 Hwy 54 North

City or town	State	ZIP code
Alamo	TN	38001

1.2 Is this application for a facility that has yet to commence discharge?
☐ Yes ➔ See instructions on data submission requirements for new dischargers. ☑ No

Applicant Information

1.3 Is applicant different from entity listed under Item 1.1 above?
☑ Yes ☐ No ➔ SKIP to Item 1.4.

Applicant name
Town of Alamo

Applicant address (street or P.O. box)
97 South Johnson St

City or town	State	ZIP code
Alamo	TN	38001

Contact name (first and last)	Title	Phone number	Email address
John Avery Emison	Mayor	(731) 696-4515	johnaveryemison@yahoo.com

1.4 Is the applicant the facility's owner, operator, or both? (Check only one response.)
☐ Owner ☐ Operator ☑ Both

1.5 To which entity should the NPDES permitting authority send correspondence? (Check only one response.)
☐ Facility ☐ Applicant ☑ Facility and applicant (they are one and the same)

Existing Environmental Permits

1.6 Indicate below any existing environmental permits. (Check all that apply and print or type the corresponding permit number for each.)

Existing Environmental Permits		
☑ NPDES (discharges to surface water) 0024988	☐ RCRA (hazardous waste)	☐ UIC (underground injection control)
☐ PSD (air emissions)	☐ Nonattainment program (CAA)	☐ NESHAPs (CAA)
☐ Ocean dumping (MPRSA)	☐ Dredge or fill (CWA Section 404)	☐ Other (specify)

Collection System and Population Served

1.7 Provide the collection system information requested below for the treatment works.

Municipality Served	Population Served	Collection System Type (indicate percentage)	Ownership Status
Town of Alamo	2500	100 % separate sanitary sewer _____ % combined storm and sanitary sewer ☐ Unknown	☑ Own ☑ Maintain ☐ Own ☐ Maintain ☐ Own ☐ Maintain
		_____ % separate sanitary sewer _____ % combined storm and sanitary sewer ☐ Unknown	☐ Own ☐ Maintain ☐ Own ☐ Maintain ☐ Own ☐ Maintain
		_____ % separate sanitary sewer _____ % combined storm and sanitary sewer ☐ Unknown	☐ Own ☐ Maintain ☐ Own ☐ Maintain ☐ Own ☐ Maintain
		_____ % separate sanitary sewer _____ % combined storm and sanitary sewer ☐ Unknown	☐ Own ☐ Maintain ☐ Own ☐ Maintain ☐ Own ☐ Maintain
Total Population Served	2500		

	Separate Sanitary Sewer System	Combined Storm and Sanitary Sewer
Total percentage of each type of sewer line (in miles)	100 %	0 %

Indian Country

1.8 Is the treatment works located in Indian Country?

☐ Yes ☑ No

1.9 Does the facility discharge to a receiving water that flows through Indian Country?

☐ Yes ☑ No

Design and Actual Flow Rates

1.10 Provide design *and* actual flow rates in the designated spaces.

Design Flow Rate: 0.4 mgd

Annual Average Flow Rates (Actual)		
Two Years Ago	**Last Year**	**This Year**
0.434 mgd	0.394 mgd	0.381 mgd

Maximum Daily Flow Rates (Actual)		
Two Years Ago	**Last Year**	**This Year**
1.458 mgd	1.347 mgd	1.495 mgd

Discharge Points by Type

1.11 Provide the total number of effluent discharge points to waters of the United States by type.

Total Number of Effluent Discharge Points by Type

Treated Effluent	Untreated Effluent	Combined Sewer Overflows	Bypasses	Constructed Emergency Overflows
1	0	0	0	0

Outfalls and Other Discharge or Disposal Methods

Outfalls Other Than to Waters of the United States

1.12 Does the POTW discharge wastewater to basins, ponds, or other surface impoundments that do not have outlets for discharge to waters of the United States?

☐ Yes ☑ No ➔ SKIP to Item 1.14.

1.13 Provide the location of each surface impoundment and associated discharge information in the table below.

Surface Impoundment Location and Discharge Data

Location	Average Daily Volume Discharged to Surface Impoundment	Continuous or Intermittent (check one)
	gpd	☐ Continuous ☐ Intermittent
	gpd	☐ Continuous ☐ Intermittent
	gpd	☐ Continuous ☐ Intermittent

1.14 Is wastewater applied to land?

☐ Yes ☑ No ➔ SKIP to Item 1.16.

1.15 Provide the land application site and discharge data requested below.

Land Application Site and Discharge Data

Location	Size	Average Daily Volume Applied	Continuous or Intermittent (check one)
	acres	gpd	☐ Continuous ☐ Intermittent
	acres	gpd	☐ Continuous ☐ Intermittent
	acres	gpd	☐ Continuous ☐ Intermittent

1.16 Is effluent transported to another facility for treatment prior to discharge?

☐ Yes ☑ No ➔ SKIP to Item 1.21.

1.17 Describe the means by which the effluent is transported (e.g., tank truck, pipe).

1.18 Is the effluent transported by a party other than the applicant?

☐ Yes ☐ No ➔ SKIP to Item 1.20.

1.19 Provide information on the transporter below.

Transporter Data

Entity name	Mailing address (street or P.O. box)	
City or town	State	ZIP code
Contact name (first and last)	Title	
Phone number	Email address	

Outfalls and Other Discharge or Disposal Methods Continued

1.20 In the table below, indicate the name, address, contact information, NPDES number, and average daily flow rate of the receiving facility.

Receiving Facility Data

Facility name	Mailing address (street or P.O. box)	
City or town	State TN	ZIP code
Contact name (first and last)	Title	
Phone number	Email address	
NPDES number of receiving facility (if any) ☐ None	Average daily flow rate mgd	

1.21 Is the wastewater disposed of in a manner other than those already mentioned in Items 1.14 through 1.21 that do not have outlets to waters of the United States (e.g., underground percolation, underground injection)?

☐ Yes ☑ No ➔ SKIP to Item 1.23.

1.22 Provide information in the table below on these other disposal methods.

Information on Other Disposal Methods

Disposal Method Description	Location of Disposal Site	Size of Disposal Site	Annual Average Daily Discharge Volume	Continuous or Intermittent (check one)
		acres	gpd	☐ Continuous ☐ Intermittent
		acres	gpd	☐ Continuous ☐ Intermittent
		acres	gpd	☐ Continuous ☐ Intermittent

Variance Requests

1.23 Do you intend to request or renew one or more of the variances authorized at 40 CFR 122.21(n)? (Check all that apply. Consult with your NPDES permitting authority to determine what information needs to be submitted and when.)

☐ Discharges into marine waters (CWA Section 301(h))

☐ Water quality related effluent limitation (CWA Section 302(b)(2))

☑ Not applicable

Contractor Information

1.24 Are any operational or maintenance aspects (related to wastewater treatment and effluent quality) of the treatment works the responsibility of a contractor?

☐ Yes ☑ No ➔SKIP to Section 2.

1.25 Provide location and contact information for each contractor in addition to a description of the contractor's operational and maintenance responsibilities.

Contractor Information

	Contractor 1	Contractor 2	Contractor 3
Contractor name (company name)			
Mailing address (street or P.O. box)			
City, state, and ZIP code			
Contact name (first and last)			
Phone number			
Email address			
Operational and maintenance responsibilities of contractor			

SECTION 2. ADDITIONAL INFORMATION (40 CFR 122.21(j)(1) and (2))

Design Flow

Outfalls to Waters of the United States

2.1 Does the treatment works have a design flow greater than or equal to 0.1 mgd?

☑ Yes ☐ No ➔ SKIP to Section 3.

Inflow and Infiltration

2.2 Provide the treatment works' current average daily volume of inflow and infiltration.

Average Daily Volume of Inflow and Infiltration
100000 gpd

Indicate the steps the facility is taking to minimize inflow and infiltration.

Smoke testing, video, spot repair and relined sewer line trouble spots. Applying for funds to start future sewer rehab.

Topographic Map

2.3 Have you attached a topographic map to this application that contains all the required information? (See instructions for specific requirements.)

☑ Yes ☐ No

Flow Diagram

2.4 Have you attached a process flow diagram or schematic to this application that contains all the required information? (See instructions for specific requirements.)

☑ Yes ☐ No

Scheduled Improvements and Schedules of Implementation

2.5 Are improvements to the facility scheduled?

☐ Yes ☑ No ➔ SKIP to Section 3.

Briefly list and describe the scheduled improvements.

1. We do have a future rehab project for the wastewater treatment plant in process . SEE ATTACHMENTS.

2.

3.

4.

2.6 Provide scheduled or actual dates of completion for improvements.

Scheduled or Actual Dates of Completion for Improvements

Scheduled Improvement (from above)	Affected Outfalls (list outfall number)	Begin Construction (MM/DD/YYYY)	End Construction (MM/DD/YYYY)	Begin Discharge (MM/DD/YYYY)	Attainment of Operational Level (MM/DD/YYYY)
1.					
2.					
3.					
4.					

2.7 Have appropriate permits/clearances concerning other federal/state requirements been obtained? Briefly explain your response.

☑ Yes ☐ No ☐ None required or applicable

Explanation:

SECTION 3. INFORMATION ON EFFLUENT DISCHARGES (40 CFR 122.21(j)(3) to (5))

Description of Outfalls

3.1 Provide the following information for each outfall. (Attach additional sheets if you have more than three outfalls.)

	Outfall Number 001	Outfall Number _____	Outfall Number _____
State	Tennessee		
County	Crockett		
City or town	Alamo		
Distance from shore	0 ft.	ft.	ft.
Depth below surface	0 ft.	ft.	ft.
Average daily flow rate	0.403 mgd	mgd	mgd
Latitude	35° 47′ 53.1″ N	° ′ ″	° ′ ″
Longitude	-89° 07′ 05,1″ W	° ′ ″	° ′ ″

Seasonal or Periodic Discharge Data

3.2 Do any of the outfalls described under Item 3.1 have seasonal or periodic discharges?

☐ Yes ☑ No ➔ SKIP to Item 3.4.

3.3 If so, provide the following information for each applicable outfall.

	Outfall Number _____	Outfall Number _____	Outfall Number _____
Number of times per year discharge occurs			
Average duration of each discharge (specify units)			
Average flow of each discharge	mgd	mgd	mgd
Months in which discharge occurs			

Diffuser Type

3.4 Are any of the outfalls listed under Item 3.1 equipped with a diffuser?

☐ Yes ☑ No ➔ SKIP to Item 3.6.

3.5 Briefly describe the diffuser type at each applicable outfall.

	Outfall Number _____	Outfall Number _____	Outfall Number _____

Waters of the U.S.

3.6 Does the treatment works discharge or plan to discharge wastewater to waters of the United States from one or more discharge points?

☑ Yes ☐ No ➔SKIP to Section 6.

Receiving Water Description

3.7 Provide the receiving water and related information (if known) for each outfall.

	Outfall Number 001	Outfall Number _____	Outfall Number _____
Receiving water name	Unnamed tributary to Back Cr		
Name of watershed, river, or stream system	Forked Deer-North Fork		
U.S. Soil Conservation Service 14-digit watershed code			
Name of state management/river basin	Forked Deer		
U.S. Geological Survey 8-digit hydrologic cataloging unit code	08010204		
Critical low flow (acute)	0 cfs	cfs	cfs
Critical low flow (chronic)	0 cfs	cfs	cfs
Total hardness at critical low flow	mg/L of $CaCO_3$	mg/L of $CaCO_3$	mg/L of $CaCO_3$

Treatment Description

3.8 Provide the following information describing the treatment provided for discharges from each outfall.

	Outfall Number 001	Outfall Number _____	Outfall Number _____
Highest Level of Treatment (check all that apply per outfall)	☐ Primary ☐ Equivalent to secondary ☑ Secondary ☐ Advanced ☐ Other (specify) _____	☐ Primary ☐ Equivalent to secondary ☐ Secondary ☐ Advanced ☐ Other (specify) _____	☐ Primary ☐ Equivalent to secondary ☐ Secondary ☐ Advanced ☐ Other (specify) _____
Design Removal Rates by Outfall			
BOD_5 or $CBOD_5$	85 %	%	%
TSS	85 %	%	%
Phosphorus	☑ Not applicable %	☐ Not applicable %	☐ Not applicable %
Nitrogen	☑ Not applicable %	☐ Not applicable %	☐ Not applicable %
Other (specify) _____	☑ Not applicable %	☐ Not applicable %	☐ Not applicable %

Treatment Description Continued

3.9 Describe the type of disinfection used for the effluent from each outfall in the table below. If disinfection varies by season, describe below.

	Outfall Number 001	Outfall Number _____	Outfall Number _____
Disinfection type	Liquid Bleach - 12%		
Seasons used	all		
Dechlorination used?	☐ Not applicable ☑ Yes ☐ No	☐ Not applicable ☐ Yes ☐ No	☐ Not applicable ☐ Yes ☐ No

Effluent Testing Data

3.10 Have you completed monitoring for all Table A parameters and attached the results to the application package?

☑ Yes ☐ No

3.11 Have you conducted any WET tests during the 4.5 years prior to the date of the application on any of the facility's discharges or on any receiving water near the discharge points?

☐ Yes ☑ No ➔ SKIP to Item 3.13.

3.12 Indicate the number of acute and chronic WET tests conducted since the last permit reissuance of the facility's discharges by outfall number or of the receiving water near the discharge points.

	Outfall Number _____		Outfall Number _____		Outfall Number _____	
	Acute	Chronic	Acute	Chronic	Acute	Chronic
Number of tests of discharge water						
Number of tests of receiving water						

3.13 Does the treatment works have a design flow greater than or equal to 0.1 mgd?

☑ Yes ☐ No ➔ SKIP to Item 3.16.

3.14 Does the POTW use chlorine for disinfection, use chlorine elsewhere in the treatment process, or otherwise have reasonable potential to discharge chlorine in its effluent?

☑ Yes ➔ Complete Table B, including chlorine. ☐ No ➔ Complete Table B, omitting chlorine.

3.15 Have you completed monitoring for all applicable Table B pollutants and attached the results to this application package?

☑ Yes ☐ No

3.16 Does one or more of the following conditions apply?

- The facility has a design flow greater than or equal to 1 mgd.
- The POTW has an approved pretreatment program or is required to develop such a program.
- The NPDES permitting authority has informed the POTW that it must sample for the parameters in Table C, must sample other additional parameters (Table D), or submit the results of WET tests for acute or chronic toxicity for each of its discharge outfalls (Table E).

☐ Yes ➔ Complete Tables C, D, and E as applicable. ☑ No ➔ SKIP to Section 4.

3.17 Have you completed monitoring for all applicable Table C pollutants and attached the results to this application package?

☐ Yes ☐ No

3.18 Have you completed monitoring for all applicable Table D pollutants required by your NPDES permitting authority and attached the results to this application package?

☐ Yes ☐ No additional sampling required by NPDES permitting authority.

Effluent Testing Data Continued

3.19 Has the POTW conducted either (1) minimum of four quarterly WET tests for one year preceding this permit application or (2) at least four annual WET tests in the past 4.5 years?

☐ Yes ☐ No ➔ Complete tests and Table E and SKIP to Item 3.26.

3.20 Have you previously submitted the results of the above tests to your NPDES permitting authority?

☐ Yes ☐ No ➔ Provide results in Table E and SKIP to Item 3.26.

3.21 Indicate the dates the data were submitted to your NPDES permitting authority and provide a summary of the results.

Date(s) Submitted (MM/DD/YYYY)	Summary of Results

3.22 Regardless of how you provided your WET testing data to the NPDES permitting authority, did any of the tests result in toxicity?

☐ Yes ☐ No ➔ SKIP to Item 3.26.

3.23 Describe the cause(s) of the toxicity:

3.24 Has the treatment works conducted a toxicity reduction evaluation?

☐ Yes ☐ No ➔ SKIP to Item 3.26.

3.25 Provide details of any toxicity reduction evaluations conducted.

3.26 Have you completed Table E for all applicable outfalls and attached the results to the application package?

☐ Yes ☐ Not applicable because previously submitted information to the NPDES permitting authority.

SECTION 4. INDUSTRIAL DISCHARGES AND HAZARDOUS WASTES (40 CFR 122.21(j)(6) and (7))

Industrial Discharges and Hazardous Wastes

4.1 Does the POTW receive discharges from SIUs or NSCIUs?

☐ Yes ☑ No ➔ SKIP to Item 4.7.

4.2 Indicate the number of SIUs and NSCIUs that discharge to the POTW.

Number of SIUs	Number of NSCIUs

4.3 Does the POTW have an approved pretreatment program?

☐ Yes ☐ No

4.4 Have you submitted either of the following to the NPDES permitting authority that contains information substantially identical to that required in Table F: (1) a pretreatment program annual report submitted within one year of the application or (2) a pretreatment program?

☐ Yes ☐ No ➔ SKIP to Item 4.6.

4.5 Identify the title and date of the annual report or pretreatment program referenced in Item 4.4. SKIP to Item 4.7.

4.6 Have you completed and attached Table F to this application package?

☐ Yes ☐ No

Industrial Discharges and Hazardous Wastes Continued

4.7 Does the POTW receive, or has it been notified that it will receive, by truck, rail, or dedicated pipe, any wastes that are regulated as RCRA hazardous wastes pursuant to 40 CFR 261?

☐ Yes ☑ No ➔ SKIP to Item 4.9.

4.8 If yes, provide the following information:

Hazardous Waste Number	Waste Transport Method (check all that apply)	Annual Amount of Waste Received	Units
	☐ Truck ☐ Rail ☐ Dedicated pipe ☐ Other (specify) _____		
	☐ Truck ☐ Rail ☐ Dedicated pipe ☐ Other (specify) _____		
	☐ Truck ☐ Rail ☐ Dedicated pipe ☐ Other (specify) _____		

4.9 Does the POTW receive, or has it been notified that it will receive, wastewaters that originate from remedial activities, including those undertaken pursuant to CERCLA and Sections 3004(7) or 3008(h) of RCRA?

☐ Yes ☑ No ➔ SKIP to Section 5.

4.10 Does the POTW receive (or expect to receive) less than 15 kilograms per month of non-acute hazardous wastes as specified in 40 CFR 261.30(d) and 261.33(e)?

☐ Yes ➔ SKIP to Section 5. ☐ No

4.11 Have you reported the following information in an attachment to this application: identification and description of the site(s) or facility(ies) at which the wastewater originates; the identities of the wastewater's hazardous constituents; and the extent of treatment, if any, the wastewater receives or will receive before entering the POTW?

☐ Yes ☐ No

SECTION 5. COMBINED SEWER OVERFLOWS (40 CFR 122.21(j)(8))

CSO Map and Diagram

5.1 Does the treatment works have a combined sewer system?

☐ Yes ☑ No ➔SKIP to Section 6.

5.2 Have you attached a CSO system map to this application? (See instructions for map requirements.)

☐ Yes ☐ No

5.3 Have you attached a CSO system diagram to this application? (See instructions for diagram requirements.)

☐ Yes ☐ No

CSO Outfall Description

5.4 For each CSO outfall, provide the following information. (Attach additional sheets as necessary.)

	CSO Outfall Number ____	CSO Outfall Number _____	CSO Outfall Number _____
City or town			
State and ZIP code			
County			
Latitude	° ' "	° ' "	° ' "
Longitude	° ' "	° ' "	° ' "
Distance from shore	ft.	ft.	ft.
Depth below surface	ft.	ft.	ft.

CSO Monitoring

5.5 Did the POTW monitor any of the following items in the past year for its CSO outfalls?

	CSO Outfall Number ____	CSO Outfall Number _____	CSO Outfall Number _____
Rainfall	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
CSO flow volume	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
CSO pollutant concentrations	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Receiving water quality	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
CSO frequency	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Number of storm events	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No

CSO Events in Past Year

5.6 Provide the following information for each of your CSO outfalls.

	CSO Outfall Number ____	CSO Outfall Number ____	CSO Outfall Number ____
Number of CSO events in the past year	events	events	events
Average duration per event	hours ☐ Actual or ☐ Estimated	hours ☐ Actual or ☐ Estimated	hours ☐ Actual or ☐ Estimated
Average volume per event	million gallons ☐ Actual or ☐ Estimated	million gallons ☐ Actual or ☐ Estimated	million gallons ☐ Actual or ☐ Estimated
Minimum rainfall causing a CSO event in last year	inches of rainfall ☐ Actual or ☐ Estimated	inches of rainfall ☐ Actual or ☐ Estimated	inches of rainfall ☐ Actual or ☐ Estimated

CSO Receiving Waters

5.7 Provide the information in the table below for each of your CSO outfalls.

	CSO Outfall Number ____	CSO Outfall Number ____	CSO Outfall Number ____
Receiving water name			
Name of watershed/ stream system			
U.S. Soil Conservation Service 14-digit watershed code (if known)	☐ Unknown	☐ Unknown	☐ Unknown
Name of state management/river basin			
U.S. Geological Survey 8-Digit Hydrologic Unit Code (if known)	☐ Unknown	☐ Unknown	☐ Unknown
Description of known water quality impacts on receiving stream by CSO (see instructions for examples)			

SECTION 6. CHECKLIST AND CERTIFICATION STATEMENT (40 CFR 122.22(a) and (d))

Checklist and Certification Statement

6.1 In Column 1 below, mark the sections of Form 2A that you have completed and are submitting with your application. For each section, specify in Column 2 any attachments that you are enclosing to alert the permitting authority. Note that not all applicants are required to provide attachments.

Column 1	Column 2	
☑ Section 1: Basic Application Information for All Applicants	☐ w/ variance request(s)	☐ w/ additional attachments
☑ Section 2: Additional Information	☑ w/ topographic map ☐ w/ additional attachments	☑ w/ process flow diagram
☑ Section 3: Information on Effluent Discharges	☑ w/ Table A ☑ w/ Table B ☐ w/ Table C	☐ w/ Table D ☐ w/ Table E ☐ w/ additional attachments
☐ Section 4: Industrial Discharges and Hazardous Wastes	☐ w/ SIU and NSCIU attachments ☐ w/ additional attachments	☐ w/ Table F
☐ Section 5: Combined Sewer Overflows	☐ w/ CSO map ☐ w/ CSO system diagram	☐ w/ additional attachments
☑ Section 6: Checklist and Certification Statement	☑ w/ attachments	

6.2 **Certification Statement**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name (print or type first and last name)	Official title
John Avery Emison	Mayor
Signature	Date signed

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
	TN0024988	Town of Alamo STP	001

Form Approved 03/05/19
OMB No. 2040-0004

TABLE A. EFFLUENT PARAMETERS FOR ALL POTWS

Pollutant	Maximum Daily Discharge		Average Daily Discharge			Analytical Method[1]	ML or MDL (include units)
	Value	Units	Value	Units	Number of Samples		
Biochemical oxygen demand ☐ BOD_5 or ☑ $CBOD_5$ (report one)	31.0	mg/L	8.09	mg/L	84	SM5210B 2011	1.0 mg/l ☐ ML ☑ MDL
Fecal coliform	770.1	MPN/100 mL	70.1	MPN/100 mL	84	SM9223B	MPN/1.0 ☐ ML ☑ MDL
Design flow rate	1.458	MGD	0.403	MGD	1095		
pH (minimum)	6.67	SU					
pH (maximum)	8.07	SU					
Temperature (winter)		NA		NA			
Temperature (summer)		NA		NA			
Total suspended solids (TSS)	24.0	mg/L	4.28	mg/L	84	SM2540D 2011	1.0 mg/L ☐ ML ☑ MDL

[1] Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

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EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
	TN0024988	Town of Alamo STP	001

Form Approved 03/05/19
OMB No. 2040-0004

TABLE B. EFFLUENT PARAMETERS FOR ALL POTWS WITH A FLOW EQUAL TO OR GREATER THAN 0.1 MGD

Pollutant	Maximum Daily Discharge		Average Daily Discharge			Analytical Method[1]	ML or MDL (include units)
	Value	Units	Value	Units	Number of Samples		
Ammonia (as N)	15.30	mg/L	4.71	mg/L	84	SM4500 NH3D 2011	0.2 mg/l ☐ ML ☑ MDL
Chlorine (total residual, TRC)[2]	0.02	mg/L	0.01	mg/L	140	SM4500 ClG - 2011	0.01 mg/l ☐ ML ☑ MDL
Dissolved oxygen	10.52	mg/L	7.97	mg/L	140	SM4500 OG -2011	0.5 mg/l ☐ ML ☑ MDL
Nitrate/nitrite	8.15	mg/L	3.28	mg/L	3	epa -353.2	0.2 mg/l ☐ ML ☑ MDL
Kjeldahl nitrogen	6.24	mg/L	3.97	mg/L	3	epa-351.2	0.5 mg/l ☐ ML ☑ MDL
Oil and grease	1.9	mg/L	1.76	mg/L	3	epa 1664b	1.4 mg/l ☐ ML ☑ MDL
Phosphorus	4.79	mg/L	1.71	mg/L	28	epa-365.1	0.2 mg/l ☐ ML ☑ MDL
Total dissolved solids	250	mg/L	172	mg/L	3	SM-2540 C 2011	20.0 mg/l ☐ ML ☑ MDL

[1] Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

[2] Facilities that do not use chlorine for disinfection, do not use chlorine elsewhere in the treatment process, and have no reasonable potential to discharge chlorine in their effluent are not required to report data for chlorine.

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TABLE C. EFFLUENT PARAMETERS FOR SELECTED POTWS

Pollutant	Maximum Daily Discharge		Average Daily Discharge			Analytical Method[1]	ML or MDL (include units)
	Value	Units	Value	Units	Number of Samples		
Metals, Cyanide, and Total Phenols							
Hardness (as $CaCO_3$)		mg/L		mg/L	3		☐ ML ☑ MDL
Antimony, total recoverable		mg/L		mg/L	3		☐ ML ☑ MDL
Arsenic, total recoverable		mg/L		mg/L	3		☐ ML ☑ MDL
Beryllium, total recoverable		mg/L		mg/L	3		☐ ML ☑ MDL
Cadmium, total recoverable		mg/L		mg/L	3		☐ ML ☑ MDL
Chromium, total recoverable		mg/L		mg/L	3		☐ ML ☑ MDL
Copper, total recoverable		mg/L		mg/L	3		☐ ML ☑ MDL
Lead, total recoverable		mg/L		mg/L	3		☐ ML ☑ MDL
Mercury, total recoverable		mg/L		mg/L	3		☐ ML ☑ MDL
Nickel, total recoverable		mg/L		mg/L	3		☐ ML ☑ MDL
Selenium, total recoverable		mg/L		mg/L	3		☐ ML ☑ MDL
Silver, total recoverable		mg/L		mg/L	3		☐ ML ☑ MDL
Thallium, total recoverable		mg/L		mg/L	3		☐ ML ☑ MDL
Zinc, total recoverable		mg/L		mg/L	3		☐ ML ☑ MDL
Cyanide		mg/L		mg/L	3		☐ ML ☑ MDL
Total phenolic compounds		mg/L		mg/L	3		☐ ML ☑ MDL
Volatile Organic Compounds							
Acrolein		mg/L		mg/L	3		☐ ML ☑ MDL
Acrylonitrile		mg/L		mg/L	3		☐ ML ☑ MDL
Benzene		mg/L		mg/L	3		☐ ML ☑ MDL
Bromoform		mg/L		mg/L	3		☐ ML ☑ MDL

TABLE C. EFFLUENT PARAMETERS FOR SELECTED POTWS

Pollutant	Maximum Daily Discharge		Average Daily Discharge			Analytical Method[1]	ML or MDL (include units)
	Value	Units	Value	Units	Number of Samples		
Carbon tetrachloride		mg/L		mg/L	3		☐ ML ☑ MDL
Chlorobenzene		mg/L		mg/L	3		☐ ML ☑ MDL
Chlorodibromomethane		mg/L		mg/L	3		☑ ML ☑ MDL
Chloroethane		mg/L		mg/L	3		☐ ML ☑ MDL
2-chloroethylvinyl ether		mg/L		mg/L	3		☐ ML ☑ MDL
Chloroform		mg/L		mg/L	3		☐ ML ☑ MDL
Dichlorobromomethane		mg/L		mg/L	3		☐ ML ☑ MDL
1,1-dichloroethane		mg/L		mg/L	3		☐ ML ☑ MDL
1,2-dichloroethane		mg/L		mg/L	3		☐ ML ☑ MDL
trans-1,2-dichloroethylene		mg/L		mg/L	3		☐ ML ☑ MDL
1,1-dichloroethylene		mg/L		mg/L	3		☐ ML ☑ MDL
1,2-dichloropropane		mg/L		mg/L	3		☐ ML ☑ MDL
1,3-dichloropropylene		mg/L		mg/L	3		☐ ML ☑ MDL
Ethylbenzene		mg/L		mg/L	3		☐ ML ☑ MDL
Methyl bromide		mg/L		mg/L	3		☐ ML ☑ MDL
Methyl chloride		mg/L		mg/L	3		☐ ML ☑ MDL
Methylene chloride		mg/L		mg/L	3		☐ ML ☑ MDL
1,1,2,2-tetrachloroethane		mg/L		mg/L	3		☐ ML ☑ MDL
Tetrachloroethylene		mg/L		mg/L	3		☐ ML ☑ MDL
Toluene		mg/L		mg/L	3		☐ ML ☑ MDL
1,1,1-trichloroethane		mg/L		mg/L	3		☐ ML ☑ MDL
1,1,2-trichloroethane		mg/L		mg/L	3		☐ ML ☑ MDL

TABLE C. EFFLUENT PARAMETERS FOR SELECTED POTWS

Pollutant	Maximum Daily Discharge		Average Daily Discharge			Analytical Method[1]	ML or MDL (include units)
	Value	Units	Value	Units	Number of Samples		
Trichloroethylene		mg/L		mg/L	3		☐ ML ☑ MDL
Vinyl chloride		mg/L		mg/L	3		☐ ML ☑ MDL
Acid-Extractable Compounds							
p-chloro-m-cresol		mg/L		mg/L	3		☐ ML ☑ MDL
2-chlorophenol		mg/L		mg/L	3		☐ ML ☑ MDL
2,4-dichlorophenol		mg/L		mg/L	3		☐ ML ☑ MDL
2,4-dimethylphenol		mg/L		mg/L	3		☐ ML ☑ MDL
4,6-dinitro-o-cresol		mg/L		mg/L	3		☐ ML ☑ MDL
2,4-dinitrophenol		mg/L		mg/L	3		☐ ML ☑ MDL
2-nitrophenol		mg/L		mg/L	3		☐ ML ☑ MDL
4-nitrophenol		mg/L		mg/L	3		☐ ML ☑ MDL
Pentachlorophenol		mg/L		mg/L	3		☐ ML ☑ MDL
Phenol		mg/L		mg/L	3		☐ ML ☑ MDL
2,4,6-trichlorophenol		mg/L		mg/L	3		☐ ML ☑ MDL
Base-Neutral Compounds							
Acenaphthene		mg/L		mg/L	3		☐ ML ☑ MDL
Acenaphthylene		mg/L		mg/L	3		☐ ML ☑ MDL
Anthracene		mg/L		mg/L	3		☐ ML ☑ MDL
Benzidine		mg/L		mg/L	3		☐ ML ☑ MDL
Benzo(a)anthracene		mg/L		mg/L	3		☐ ML ☑ MDL
Benzo(a)pyrene		mg/L		mg/L	3		☐ ML ☑ MDL
3,4-benzofluoranthene		mg/L		mg/L	3		☐ ML ☑ MDL

TABLE C. EFFLUENT PARAMETERS FOR SELECTED POTWS

Pollutant	Maximum Daily Discharge		Average Daily Discharge			Analytical Method[1]	ML or MDL (include units)
	Value	Units	Value	Units	Number of Samples		
Benzo(ghi)perylene		mg/L		mg/L	3		☐ ML ☑ MDL
Benzo(k)fluoranthene		mg/L		mg/L	3		☐ ML ☑ MDL
Bis (2-chloroethoxy) methane		mg/L		mg/L	3		☐ ML ☑ MDL
Bis (2-chloroethyl) ether		mg/L		mg/L	3		☐ ML ☑ MDL
Bis (2-chloroisopropyl) ether		mg/L		mg/L	3		☐ ML ☑ MDL
Bis (2-ethylhexyl) phthalate		mg/L		mg/L	3		☐ ML ☑ MDL
4-bromophenyl phenyl ether		mg/L		mg/L	3		☐ ML ☑ MDL
Butyl benzyl phthalate		mg/L		mg/L	3		☐ ML ☑ MDL
2-chloronaphthalene		mg/L		mg/L	3		☐ ML ☑ MDL
4-chlorophenyl phenyl ether		mg/L		mg/L	3		☐ ML ☑ MDL
Chrysene		mg/L		mg/L	3		☐ ML ☑ MDL
di-n-butyl phthalate		mg/L		mg/L	3		☐ ML ☑ MDL
di-n-octyl phthalate		mg/L		mg/L	3		☐ ML ☑ MDL
Dibenzo(a,h)anthracene		mg/L		mg/L	3		☐ ML ☑ MDL
1,2-dichlorobenzene		mg/L		mg/L	3		☐ ML ☑ MDL
1,3-dichlorobenzene		mg/L		mg/L	3		☐ ML ☑ MDL
1,4-dichlorobenzene		mg/L		mg/L	3		☐ ML ☑ MDL
3,3-dichlorobenzidine		mg/L		mg/L	3		☐ ML ☑ MDL
Diethyl phthalate		mg/L		mg/L	3		☐ ML ☑ MDL
Dimethyl phthalate		mg/L		mg/L	3		☐ ML ☑ MDL
2,4-dinitrotoluene		mg/L		mg/L	3		☐ ML ☑ MDL
2,6-dinitrotoluene		mg/L		mg/L	3		☐ ML ☑ MDL

TABLE C. EFFLUENT PARAMETERS FOR SELECTED POTWS

Pollutant	Maximum Daily Discharge		Average Daily Discharge			Analytical Method[1]	ML or MDL (include units)
	Value	Units	Value	Units	Number of Samples		
1,2-diphenylhydrazine		mg/L		mg/L	3		☐ ML ☑ MDL
Fluoranthene		mg/L		mg/L	3		☐ ML ☑ MDL
Fluorene		mg/L		mg/L	3		☐ ML ☑ MDL
Hexachlorobenzene		mg/L		mg/L	3		☐ ML ☑ MDL
Hexachlorobutadiene		mg/L		mg/L	3		☐ ML ☑ MDL
Hexachlorocyclo-pentadiene		mg/L		mg/L	3		☐ ML ☑ MDL
Hexachloroethane		mg/L		mg/L	3		☐ ML ☑ MDL
Indeno(1,2,3-cd)pyrene		mg/L		mg/L	3		☐ ML ☑ MDL
Isophorone		mg/L		mg/L	3		☐ ML ☑ MDL
Naphthalene		mg/L		mg/L	3		☐ ML ☑ MDL
Nitrobenzene		mg/L		mg/L	3		☑ ML ☑ MDL
N-nitrosodi-n-propylamine		mg/L		mg/L	3		☑ ML ☑ MDL
N-nitrosodimethylamine		mg/L		mg/L	3		☐ ML ☑ MDL
N-nitrosodiphenylamine		mg/L		mg/L	3		☐ ML ☑ MDL
Phenanthrene		mg/L		mg/L	3		☐ ML ☑ MDL
Pyrene		mg/L		mg/L	3		☐ ML ☑ MDL
1,2,4-trichlorobenzene		mg/L		mg/L	3		☐ ML ☑ MDL

[1] Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR Chapter I, Subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

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TABLE D. ADDITIONAL POLLUTANTS AS REQUIRED BY NPDES PERMITTING AUTHORITY

Pollutant (list)	Maximum Daily Discharge		Average Daily Discharge			Analytical Method[1]	ML or MDL (include units)
	Value	Units	Value	Units	Number of Samples		
☐ No additional sampling is required by NPDES permitting authority.							
							☐ ML ☐ MDL
							☐ ML ☐ MDL
							☐ ML ☐ MDL
							☐ ML ☐ MDL
							☐ ML ☐ MDL
							☐ ML ☐ MDL
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							☐ ML ☐ MDL
							☐ ML ☐ MDL
							☐ ML ☐ MDL
							☐ ML ☐ MDL
							☐ ML ☐ MDL
							☐ ML ☐ MDL

[1] Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

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TABLE E. EFFLUENT MONITORING FOR WHOLE EFFLUENT TOXICITY

The table provides response space for one whole effluent toxicity sample. Copy the table to report additional test results.

Test Information	**Test Number _____**	**Test Number _____**	**Test Number _____**
Test species			
Age at initiation of test			
Outfall number			
Date sample collected			
Date test started			
Duration			
Toxicity Test Methods			
Test method number			
Manual title			
Edition number and year of publication			
Page number(s)			
Sample Type			
Check one:	☐ Grab ☐ 24-hour composite	☐ Grab ☐ 24-hour composite	☐ Grab ☐ 24-hour composite
Sample Location			
Check one:	☐ Before Disinfection ☐ After Disinfection ☐ After Dechlorination	☐ Before Disinfection ☐ After Disinfection ☐ After Dechlorination	☐ Before disinfection ☐ After disinfection ☐ After dechlorination
Point in Treatment Process			
Describe the point in the treatment process at which the sample was collected for each test.			
Toxicity Type			
Indicate for each test whether the test was performed to asses acute or chronic toxicity, or both. (Check one response.)	☐ Acute ☐ Chronic ☐ Both	☐ Acute ☐ Chronic ☐ Both	☐ Acute ☐ Chronic ☐ Both

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number	Form Approved 03/05/19 OMB No. 2040-0004
	TN0024988	Town of Alamo STP		

TABLE E. EFFLUENT MONITORING FOR WHOLE EFFLUENT TOXICITY

The table provides response space for one whole effluent toxicity sample. Copy the table to report additional test results.

	Test Number _____	Test Number _____	Test Number _____
Test Type			
Indicate the type of test performed. (Check one response.)	☐ Static ☐ Static-renewal ☐ Flow-through	☐ Static ☐ Static-renewal ☐ Flow-through	☐ Static ☐ Static-renewal ☐ Flow-through
Source of Dilution Water			
Indicate the source of dilution water. (Check one response.)	☐ Laboratory water ☐ Receiving water	☐ Laboratory water ☐ Receiving water	☐ Laboratory water ☐ Receiving water
If laboratory water, specify type.			
If receiving water, specify source.			
Type of Dilution Water			
Indicate the type of dilution water. If salt water, specify "natural" or type of artificial sea salts or brine used.	☐ Fresh water ☐ Salt water (specify)	☐ Fresh water ☐ Salt water (specify)	☐ Fresh water ☐ Salt water (specify)
Percentage Effluent Used			
Specify the percentage effluent used for all concentrations in the test series.			

Parameters Tested						
Check the parameters tested.	☐ pH ☐ Salinity ☐ Temperature	☐ Ammonia ☐ Dissolved oxygen	☐ pH ☐ Salinity ☐ Temperature	☐ Ammonia ☐ Dissolved oxygen	☐ pH ☐ Salinity ☐ Temperature	☐ Ammonia ☐ Dissolved oxygen
Acute Test Results						
Percent survival in 100% effluent	%		%		%	
LC_{50}						
95% confidence interval	%		%		%	
Control percent survival	%		%		%	

TABLE E. EFFLUENT MONITORING FOR WHOLE EFFLUENT TOXICITY

The table provides response space for one whole effluent toxicity sample. Copy the table to report additional test results.

	Test Number _____		Test Number _____		Test Number _____	
Acute Test Results Continued						
Other (describe)						
Chronic Test Results						
NOEC	%		%		%	
IC_{25}	%		%		%	
Control percent survival	%		%		%	
Other (describe)						
Quality Control/Quality Assurance						
Is reference toxicant data available?	☐ Yes	☐ No	☐ Yes	☐ No	☐ Yes	☐ No
Was reference toxicant test within acceptable bounds?	☐ Yes	☐ No	☐ Yes	☐ No	☐ Yes	☐ No
What date was reference toxicant test run (MM/DD/YYYY)?						
Other (describe)						

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TABLE F. INDUSTRIAL DISCHARGE INFORMATION

Response space is provided for three SIUs. Copy the table to report information for additional SIUs.

	SIU ____	SIU ____	SIU ____
Name of SIU			
Mailing address (street or P.O. box)			
City, state, and ZIP code			
Description of all industrial processes that affect or contribute to the discharge.			
List the principal products and raw materials that affect or contribute to the SIU's discharge.			
Indicate the average daily volume of wastewater discharged by the SIU.	gpd	gpd	gpd
How much of the average daily volume is attributable to process flow?	gpd	gpd	gpd
How much of the average daily volume is attributable to non-process flow?	gpd	gpd	gpd
Is the SIU subject to local limits?	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Is the SIU subject to categorical standards?	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No

TABLE F. INDUSTRIAL DISCHARGE INFORMATION

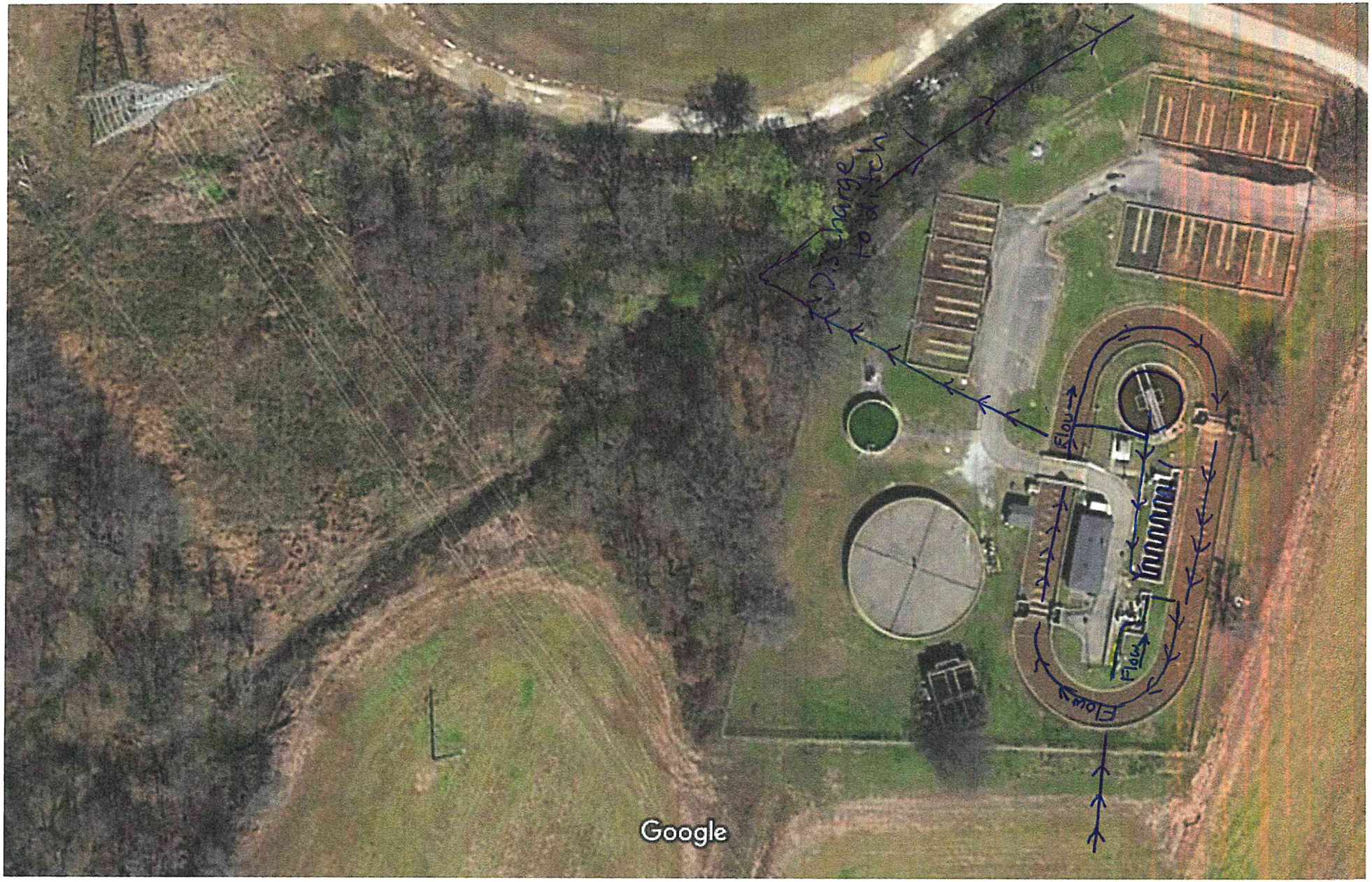
Response space is provided for three SIUs. Copy the table to report information for additional SIUs.

	SIU ____	SIU ____	SIU ____
Under what categories and subcategories is the SIU subject?			
Has the POTW experienced problems (e.g., upsets, pass-through interferences) in the past 4.5 years that are attributable to the SIU?	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
If yes, describe.			

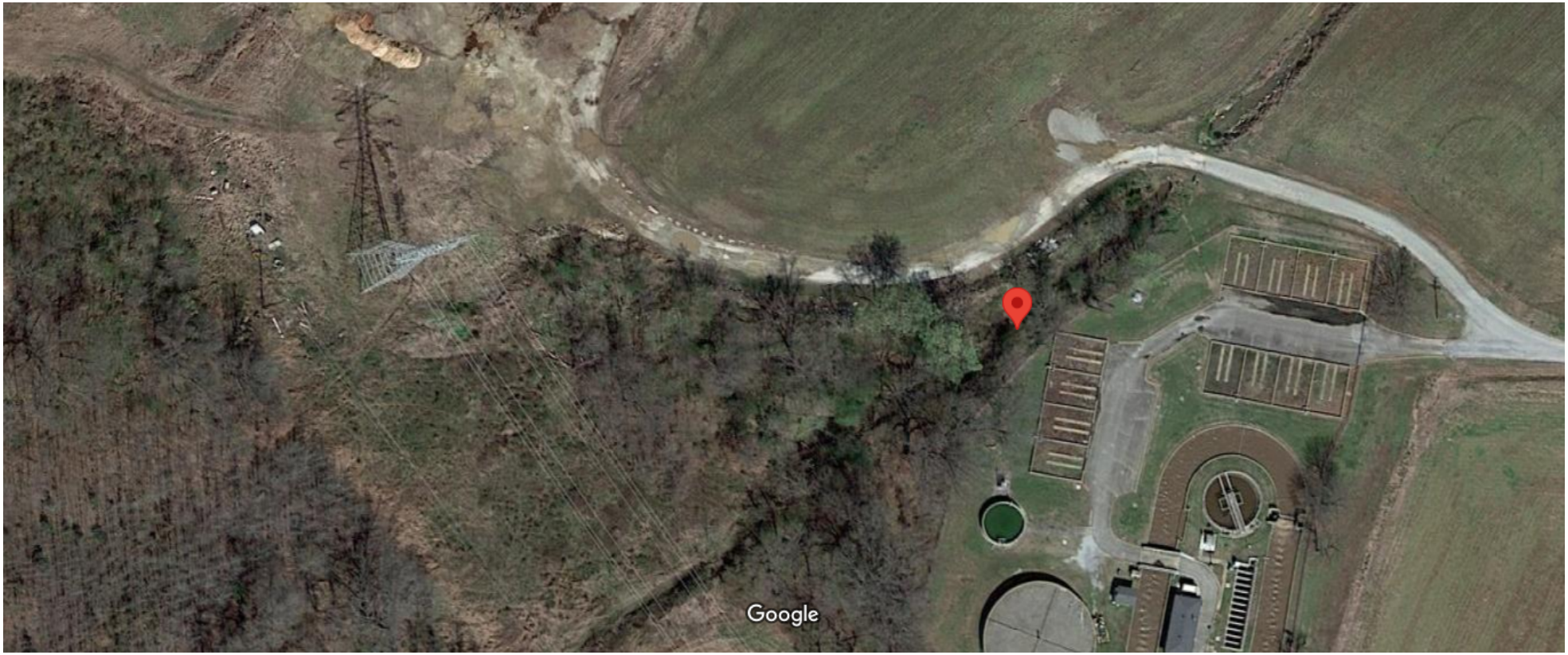
Click to go back to the beginning of Form

Google Maps Alamo

Flow Diagram



35°47'53.1"N 89°07'05.1"W



35°47'53.1"N 89°07'05.1"W

35.798071, -89.118094

Google Maps

Imagery ©2022 Maxar Technologies, Map data ©2022 50 ft

TENNESSEE SPARROW HUC10 TOTAL NITROGEN ANALYSIS SHEET

MIDDLE FORK FORKED DEER RIVER WATERSHED (HUC10 - 02)

vs 11/13/20

SPARROW Modeled TN Load at Outlet of HUC10 (02)

Source Category	Contribution (%)
Air Deposition ("background")	28.5
Manure	3.6
Fertilizer	59.5
Legume Crops	0.0
Urban	2.8
Wastewater	5.6
Total	100.0

Total Load	1,107,941	lbs/yr
Drainage Area	155	sq mi
Unit Area Load	11.188	lbs/ac/yr
Mean Annual Streamflow	739.4	cfs

Point Source Load Contribution	Enrichment Factor		
	EF < 2.35	2.35 ≤ EF < 2.66	EF ≥ 2.66
%C ≥ 5.77%	Low	Medium	High
2.27% ≤ %C < 5.77%	Low	Medium	Medium
%C < 2.27%	Low	Low	Low

TN Enrichment Factor = Total Current Load / Total "Background" Load = **3.51**

Impact Category: **Medium**

Proposed WWTP Treatment Performance: **8 mg/L**

Point Source Characteristics

Facility	Permit #	Design Flow (MGD)	Average Flow (MGD)	Ratio (Avg/ Design)	Avg TN Conc (mg/L)	Recommended Reduction (%)	# of Samples	Data Source	Discharge to Nutrient Impaired Waterbody (2016)
Humboldt STP	TN0062588	2.6	1.655	63.7%	8.28	Cap *	18	DMRs (2008-15)	
Alamo STP	TN0024988	0.4	0.5084	127.1%	3.6	Cap	3	application (2017)	

* Discharge from Humboldt STP does not require a reduction because the average discharge flow is less than the design flow.

Recommended Point Source Facility Load

Facility	Permit #	Allowable Annual Load *	Recommended Monitoring
Humboldt STP	TN0062588	41,715	Semi-monthly composite sample + in-stream monitoring
Alamo STP	TN0024988	5,571	monthly grab sample + in-stream monitoring

* Allowable Annual Load calculated based on expected treatment performance (if reduction is recommended) or monitoring data (if no reduction is recommended). In the absence of monitoring data, load is calculated from design flow and a default TN concentration of 45 mg/L.

Potential Trading Source

Ratio -- Wastewater(STP)/Wastewater(other)	**40.62**
Ratio -- WWTP/(fertiliz er+manure+legumes)	0.09
Ratio -- (WWTP+urban)/(fe tilizer+manure+legumes)	0.13

TENNESSEE SPARROW HUC10 TOTAL PHOSPHORUS ANALYSIS SHEET

MIDDLE FORK FORKED DEER RIVER WATERSHED (HUC10 - 02)

vs 11/13/20

SPARROW Modeled TP Load at Outlet of HUC10 (02)

Source Category	Contribution (%)
Soil Parent Rock ("background")	32.7
Mines	0.0
Manure	3.7
Fertilizer	58.3
Urban	2.5
Wastewater	2.7
Total	99.9

Total Load	426,014	lbs/yr
Drainage Area	99,030	acres
Unit Area Load	4.302	lbs/ac/yr
Mean Annual Streamflow	739.4	cfs

Point Source Load Contribution	Enrichment Factor		
	EF < 2.67	2.67 ≤ EF < 3.05	EF ≥ 3.05
%C ≥ 2.75%	Low	Medium	High
1.29% ≤ %C < 2.75%	Low	Medium	Medium
%C < 1.29%	Low	Low	Low

TP Enrichment Factor = Total Current Load / Total "Background" Load = **3.06**

Impact Category: **Medium**

Proposed WWTP Treatment Performance: **1 mg/L**

Point Source Characteristics

Permittee	Permit #	Design Flow (MGD)	Average Flow (MGD)	Ratio (Avg/ Design)	Avg TP Conc (mg/L)	Recommended Reduction (%)	# of Samples	Data Source	Discharge to Nutrient Impaired Waterbody (2016)
Humboldt STP	TN0062588	2.6	1.655	63.7%	2.05	23.4	19	DMRs (2008-15)	MFFDr Mile 23.4
Alamo STP	TN0024988	0.4	0.5084	127.1%	1.84	Cap	70	DMRs (2015-20)	ut to Buck Creek

Recommended Point Source Facility Load

Facility	Permit #	Allowable Annual Load *	Recommended Monitoring
Humboldt STP	TN0062588	7,915	Semi-monthly composite sample + in-stream monitoring
Alamo STP	TN0024988	2,848	monthly grab sample + in-stream monitoring

* Allowable Annual Load calculated based on expected treatment performance (if reduction is recommended) or monitoring data (if no reduction is recommended). In the absence of monitoring data, load is calculated from design flow and a default TP concentration of 5 mg/L.

Potential Trading Source

Ratio -- Wastewater(STP)/Wastewater(other)	**4.40**
Ratio -- WWTP/(fertilizer+manure)	0.04
Ratio -- (WWTP+urban)/(fertilizer+manure)	0.08

6.2. NH_3-N TOXICITY

To assess toxicity impacts, the state utilizes the EPA Ambient Water Quality Criteria for Ammonia (https://www.epa.gov/wqc/aquatic-life-criteria-ammonia), which is promulgated in Tennessee Rules, Chapter 0400-40-03-.03-3(3)(j), dated *September 11, 2019*, and stream temperatures of 23°C and 10°C and pH of 7.0 to derive an allowable instream protection value protective of chronic exposure to a continuous discharge. A mass balance equation with sewage treatment facility and stream flows and this allowable value determines the monthly average permit limit. The criteria document states that a 30Q5 flow value is protective in deriving allowable values. Where the division has 30Q5 flow values, the division may use them. Otherwise, the division utilizes the available 7Q10 or 1Q10 values that are generally more conservative. The criteria continuous concentrations (CCC) derived from assumed temperature and pH values are as follows:

CCC values based on temperature and pH, in mg/L:

Temperature (°C)	7.0 pH	7.5 pH	8.0 pH
23	1.56	1.15	0.64
25	1.37	1.01	0.56
27	1.20	0.89	0.49
30	0.99	0.73	0.41

Temperature (°C)	7.0 pH	7.5 pH	8.0 pH
10	3.6	2.66	1.48
15	2.6	1.92	1.07
17	2.29	1.69	0.94
20	1.89	1.39	0.78

The mass balance equation is as follows:

$$CCC = \frac{Q_S C_S + Q_{STP} C_{STP}}{Q_S + Q_{STP}} \quad \text{or,} \quad C_{STP=} \frac{CCC(Q_S + Q_{STP}) - (Q_S C_S)}{Q_{STP}}$$

where:

CCC = Criteria continuous concentration (mg/L)
Q_S = 7Q10 flow of receiving stream (MGD)
Q_{STP} = Design flow of STP (MGD)
C_S = Assumed/Measured instream NH_3 (mg/L)
C_{STP} = Allowable STP discharge of NH_3 (mg/L)

C_{STP} = $\frac{\text{CCC (0 MGD+ 0.4 MGD)}-\text{(0 MGD x 0.1mg/L)}}{\text{0.4 MGD}}$ = 1.56 mg/L (summer)

C_{STP} = $\frac{\text{CCC (0 MGD+ 0.4 MGD)}-\text{(0 MGD x 0.1mg/L)}}{\text{0.4 MGD}}$ = 3.6 mg/L (winter)

In this case, limiting NH_3-N to 1.1 mg/l (summer) and 2 mg/l (winter) is retained due to the anti-backsliding provision of 40 CFR 122.44(I) that requires a reissued permit to be as stringent as the previous permit.

*In the current permit, keep in mind that the state utilized the EPA document, 1999 Update to Ambient Water Quality Criteria for Ammonia, pursuant to 0400-40-03-.0-3(3)(j), and assumed stream temperatures of 27°C and 17°C and pH of 8.0 to derive an allowable instream protection value protective of chronic exposure to a continuous discharge.

CCC values based on temperature and pH, in mg/L:

Temperature (°C)	7.5 pH	8.0 pH
25	2.22	1.24
27	1.94	1.09
30	1.61	0.90

Temperature (°C)	7.5 pH	8.0 pH
15	4.22	2.36
17	3.72	2.07
20	3.06	1.71

$$C_{STP} = \frac{1.09\ (0\ MGD + 0.4\ MGD) - (0\ MGD \times 0.1 mg/l)}{0.4\ MGD} = 1.09\ mg/l\ (summer)$$

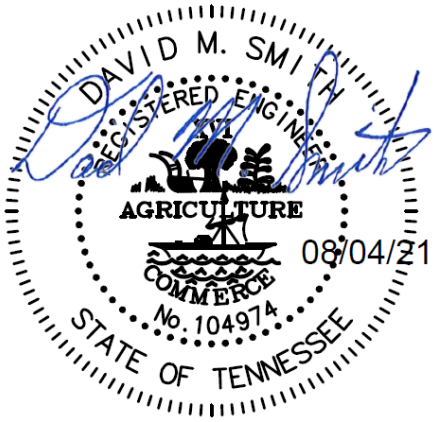
$$C_{STP} = \frac{2.07\ (0\ MGD + 0.4\ MGD) - (0\ MGD \times 0.1 mg/l)}{0.4\ MGD} = 2.07\ mg/l\ (winter)$$

In this case, limiting NH_3-N to 1.1 mg/l (summer) and 2 mg/l (winter) is necessary to prevent ammonia toxicity.

CORRECTIVE ACTION PLAN/ENGINEERING REPORT (CAP/ER)

FOR THE
TOWN OF ALAMO, TENNESSEE

IN RESPONSE TO
TDEC – DIVISION OF WATER RESOURCES
DIRECTOR'S ORDER CASE NO. WPC21-0023



A2H
ENGINEERS · ARCHITECTS · PLANNERS

Introduction

The Town of Alamo received Director's Order and Assessment WPC21-0023 from the Tennessee Department of Environment and Conservation (TDEC), Division of Water Resources for violations of the Town's NPDES Permit. More than half of the violations were exceedances of the ammonia nitrogen limit.

One of the requirements of the Order is for the Town to provide a Corrective Action Plan/ Engineering Report for addressing the violations and providing corrective steps with a schedule. The purpose of this document is to summarize the findings of the Order, present planned corrective actions, and to provide an implementation schedule for the planned corrective actions.

Summary of Director's Order and Assessment

The Director's Order identifies the following facts:

- The Town of Alamo operates a wastewater treatment plant (WWTP) with an NPDES Permit identification of TN0024988. The permit to discharge treated wastewater is typically a five year permit; however, the current permit for Alamo is a four year permit, effective August 1, 2018, and expiring July 31, 2022.
- As part of the permit requirements, the Town of Alamo submits monthly operating data to TDEC.
- From the time period of October 2019 through March 2021 (18 months), there were 67 exceedances of various permit limits.

Due to those exceedances, the Order and Assessment was issued. Almost half of the exceedances were due to exceeding the Ammonia Nitrogen permit limit, while nearly as many were due to exceeding the BOD limit. Exceeding the BOD limit indicates that the treatment plant is not processing organic material to the level needed to be within permit limits.

The Ammonia Nitrogen and BOD exceedances account for 51 of the 67 exceedances. This indicates that the plant is challenged to consistently treat wastewater to the level needed. There are multiple causes for this; one of the chief ones is the significant infiltration and inflow issue within the Town of Alamo wastewater collection system. The collection system allows in a significant amount of rainwater, which overloads the wastewater treatment plant, reducing its ability to adequately treat wastewater to the permit limits. One of the other causes of exceedances is the limits of the permit itself. Due to the permit standards for discharging into an unnamed tributary to Buck Creek, there is little margin for error in operational efficiencies.

Planned Corrective Actions

The Town of Alamo recognizes the need to implement corrective actions to bring the wastewater treatment plant into compliance with the existing permit limits. Following are the planned activities.

Operational Adjustments

The Town of Alamo recognizes that one corrective action is to adjust the operations of the existing facility to optimize the process units available. Since October 2019, the Town has

replaced the wastewater treatment plant operator and the current operator is utilizing TAUD and MTAS resources for tweaking the plant performance. The operator has already implemented multiple adjustments to how the plant functions.

Infiltration and Inflow Reduction

The chief cause of upsets within the existing wastewater treatment plant is the significant amount of infiltration and inflow of rainwater. During 2020, the Town of Alamo engaged TREKK Design Group to inspect and assess portions of the wastewater collection system, identifying areas of higher priority for repair. The Town of Alamo is using a significant portion of an existing Community Development Block Grant (CDBG) for infiltration and inflow reduction through lining of a portion of the existing sewer system, addressing the areas identified in the TREKK study.

The CDBG plans have been submitted to the State of Tennessee ECD for review and concurrence. Once approved, the plans will be bid and construction will occur. It is anticipated that this work will be complete by May 2022.

Construction of a Second Clarifier

The existing wastewater treatment plant has only one secondary clarifier, a clear limitation to operational flexibility and redundancy. The Town has recognized this and is using a portion of their current CDBG for the design and construction of a second clarifier. The inclusion of a second clarifier will allow for the plant to be able to handle the higher storm flows and still provide acceptable settling rates. The design is complete and the plans have been submitted to the State of Tennessee ECD for review and concurrence. Once approved, the plans will be bid and construction will occur. It is anticipated that this work will be complete by May 2022.

Additional Infiltration and Inflow Study and Corrective Action

Once the initial infiltration and inflow work is complete, the Town then will monitor and assess the remaining magnitude of infiltration and inflow within the wastewater system and will determine the areas of the wastewater collection system that require additional investigation.

Once the high priority areas are identified, the Town of Alamo will retain a firm to perform cleaning and video inspection services to assess the issues and further refine the next infiltration and inflow repair project.

The Town will have the flow monitoring performed in 2022 and then have the cleaning and inspection services in 2023.

Investigation into Seasonal Spray Irrigation

One of the issues with long term compliance with the existing NPDES permit is the fact that the plant discharges to a small, unnamed tributary. It has been previously suggested by TDEC that the Town consider transitioning to spray irrigation for disposal of treated wastewater. The use of spray irrigation for disposal would eliminate the loading of treated wastewater to the unnamed tributary during applicable time periods.

The Town will investigate the opportunity for the addition of spray irrigation disposal as a seasonal wastewater disposal, with the intent that the existing discharge be utilized during the wetter months. With the current permit expiring in July 2022, it is proposed to work the permit renewal and spray irrigation disposal permitting efforts in parallel.

Corrective Action Implementation Schedule

Following is the proposed implementation schedule for the corrective actions.

Infiltration and Inflow Reduction - Initial wastewater collection system investigation and determination of repair needs	• *Completed January 2021*
Infiltration and Inflow Reduction – Rehabilitation of wastewater collection system – CDBG project	• Design is complete • Construction Anticipated *October 2021 – May 2022*
Construction of a Second Clarifier – Design and construction of a second clarifier	• Design is complete • Construction Anticipated *October 2021 – May 2022*
Additional Infiltration and Inflow Study and Corrective Action – Wastewater collection system infiltration and inflow study	• Flow monitoring – *May 2022 through December 2022* • Cleaning and Inspection – *first half 2023*
Investigation into Seasonal Spray Irrigation – Siting and permitting of seasonal spray irrigation	• Preliminary siting discussion with TDEC – *fall 2021* • Soil percolation investigations – *spring 2022* • Permit application for spray irrigation – *summer 2022* • Construction Plans for spray irrigation – *2023* • Construction of spray field - *2024*

The schedule for the various construction projects is dependent on the ability of the Town of Alamo to obtain grant funding for the projects

Conclusion

The Town of Alamo recognizes that improvements to the processes of collection and treatment of wastewater must be made to be in compliance with the Town's NPDES permit. The Town has already committed funds for investigation of the collection system, repair of portions of the collection system, and construction of a second clarifier at the wastewater treatment plant for the purpose of achieving compliance with the permit.

The Town believes that the proposed corrective actions will obtain compliance with the current NPDES permit limits and proposes to implement these actions as per the presented schedule.