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TOWN OF  
**ELIZABETHTOWN**

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**Town of Elizabethtown  
Wastewater Treatment Plant**

**Annual Performance Report  
For Calendar Year 2021**

**Prepared: January 27, 2022**

*"The mission of the Town of Elizabethtown is to deliver cost-effective services that promote public health and safety and enhance the quality of life of all citizens."*

# 2021 Annual Performance Report

For the

Town of Elizabethtown

## Wastewater Treatment Facility

### 1. General Information

Facility/System Name: Town of Elizabethtown Wastewater Treatment Plant

Responsible Entity: Town of Elizabethtown

Person in Charge/Contact: Dane Rideout

Town Manager

P.O. Box 700

Elizabethtown NC 28337

(910) 862-2066

### Description of Wastewater Treatment Process

The Town of Elizabethtown, North Carolina owns and operates a 1,225 MGD design capacity wastewater treatment plant (WWTP) that treats a combination of domestic and industrial wastewaters. The wastewater treatment plant is comprised of sequential batch reactors and extended aeration treatment process. The treatment units include a mechanical bar screen, sequencing batch reactors and extended aeration basins that are followed by secondary clarification. The treatment effluent is chlorinated and dechlorinated prior to discharge to the Cape Fear River. Biosolids generated are aerobically digested and lime stabilized prior to land application on permitted land or dewatered by McGill dewatering Company and removed from site.

### 2. Compliance Performance

The North Carolina Department of Environment and Natural Resources (NCDENR) regulate The Town of Elizabethtown's effluent discharge under the National Pollutant Discharge Elimination System (NPDES). The NCDENR issued to the town a NPDES permit that includes water quality limits and sampling and monitoring requirements. The NPDES permit requires the Town to monitor more than 15 constituents in the treated wastewater. The frequency of testing is at different intervals such as continuous, daily, weekly, monthly, and quarterly. During 2021 the Town conducted hundreds of tests of

the treated wastewater to ensure compliance with NPDES Permit limits before being discharged into the Cape Fear River.

Following is a summary of testing required to satisfy the standards set forth in the NPDES Permit.

Constituent	Number of Tests Required	Number of Tests Conducted
Flow	Continuous	Continuous
Biochemical Oxygen Demand	105	105
Total Suspended Solids	105	105
Ammonia Nitrogen	105	105
Dissolved Oxygen	156	205
Fecal Coliform	105	105
Chlorine Residual	156	205
pH	156	205
Temperature	260	365
Total Nitrogen	12	12
Total Kjeldahl Nitrogen	12	12
Nitrate + Nitrite Nitrogen	12	12
Total Phosphorus	12	12
Chronic Toxicity	4	4
Effluent Pollutant Scan	1	1

In addition to required testing the Town also conducted hundreds of in-house tests to ensure the proper operation of the Wastewater Treatment Plant.

Following is a summary of permit violations which occurred in 2021.

- 1 There were no violations for the calendar year 2021