

UTILITY REPORT



JANUARY 2024

Town of Bowling Green, VA

Authored by:

Inboden Environmental Services, Inc.



WATER

Water Quality

The treatment facilities and distribution system maintained compliance with all required sampling.

Bacteriological Analysis:

Location	Date	Result
010 - Jefferson Drive	1/15/2025	Absent
040 - Town Hall	1/15/2025	Absent

Water Treatment

The water treatment plant met the Town's water demand with a total monthly well yield of 4.864 MG for an average daily production rate of 0.156 MGD.

Operational Notes:

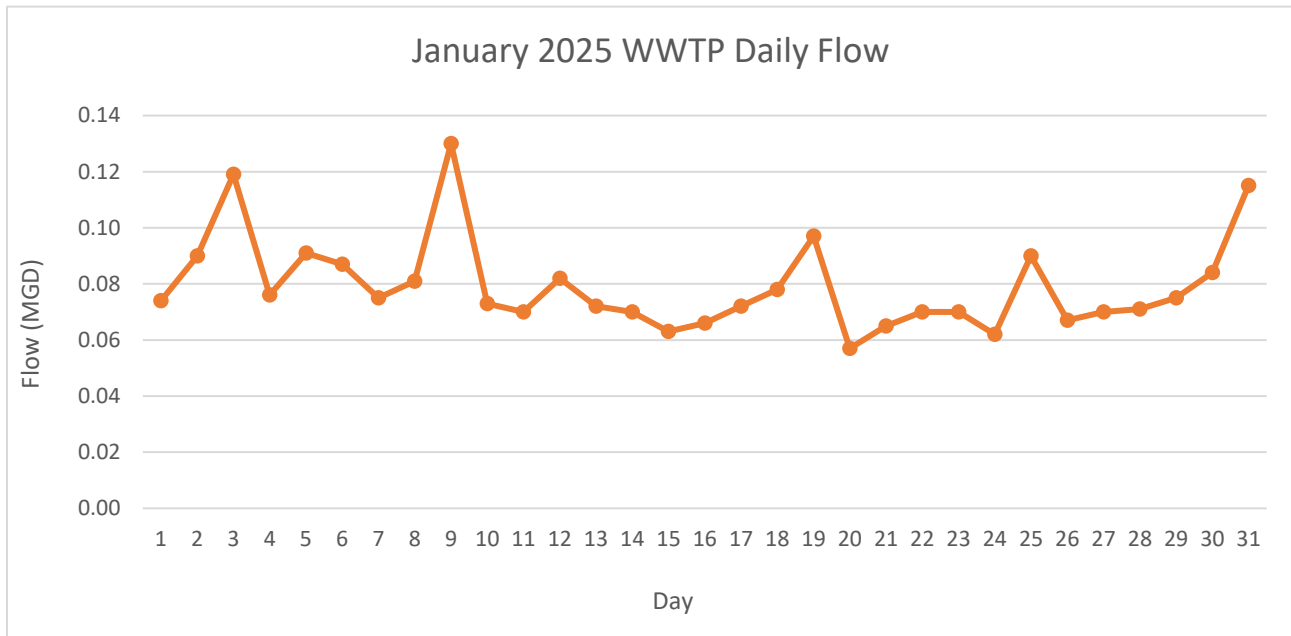
Treatment plants were visited, and an analysis of water quality was performed every day.

- Effectively dosing sodium hypochlorite for proper disinfection for drinking water.
- All P/A samples collected and passed.
- Monthly report sent to VDH successfully.
- New pressure gauges were installed at all three wells.
- A voltage and amperage test was performed on the booster pumps to check performance.
- Replaced the heat tape on the ground tank at Well 5.

WASTEWATER

Wastewater Treatment

The wastewater treatment plant had an average daily flow of 0.079 MGD for a total monthly effluent discharge of 2.462 MG.

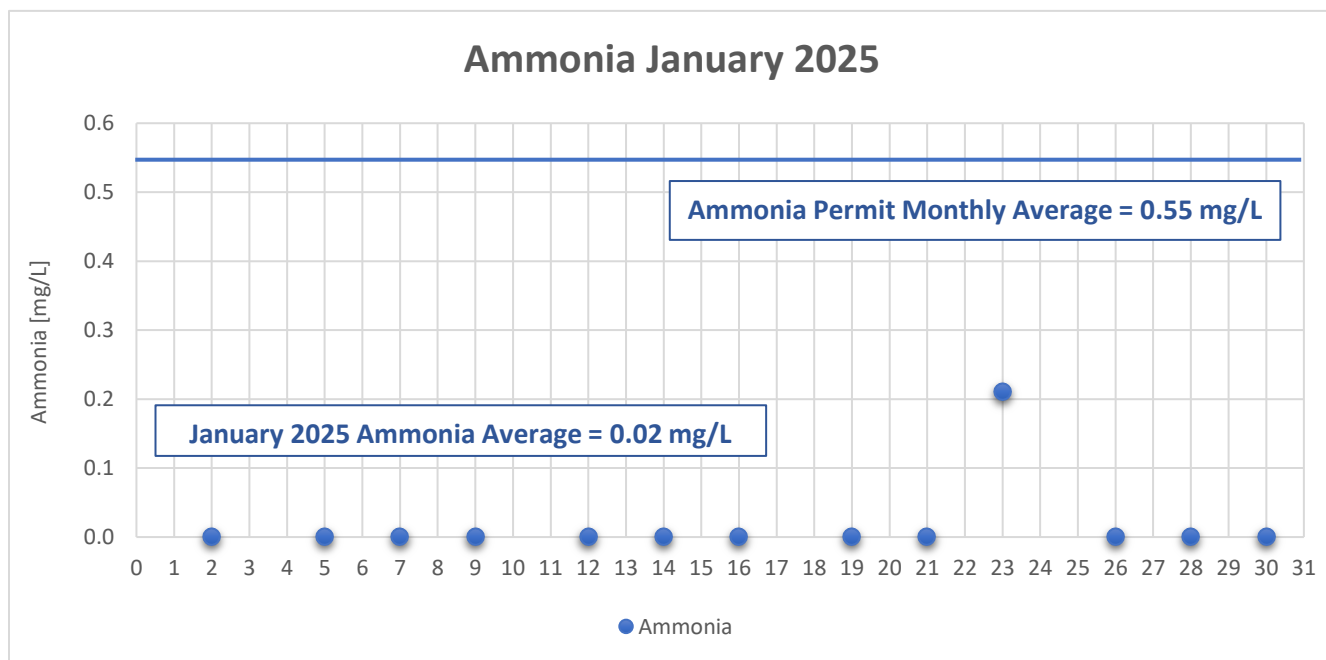
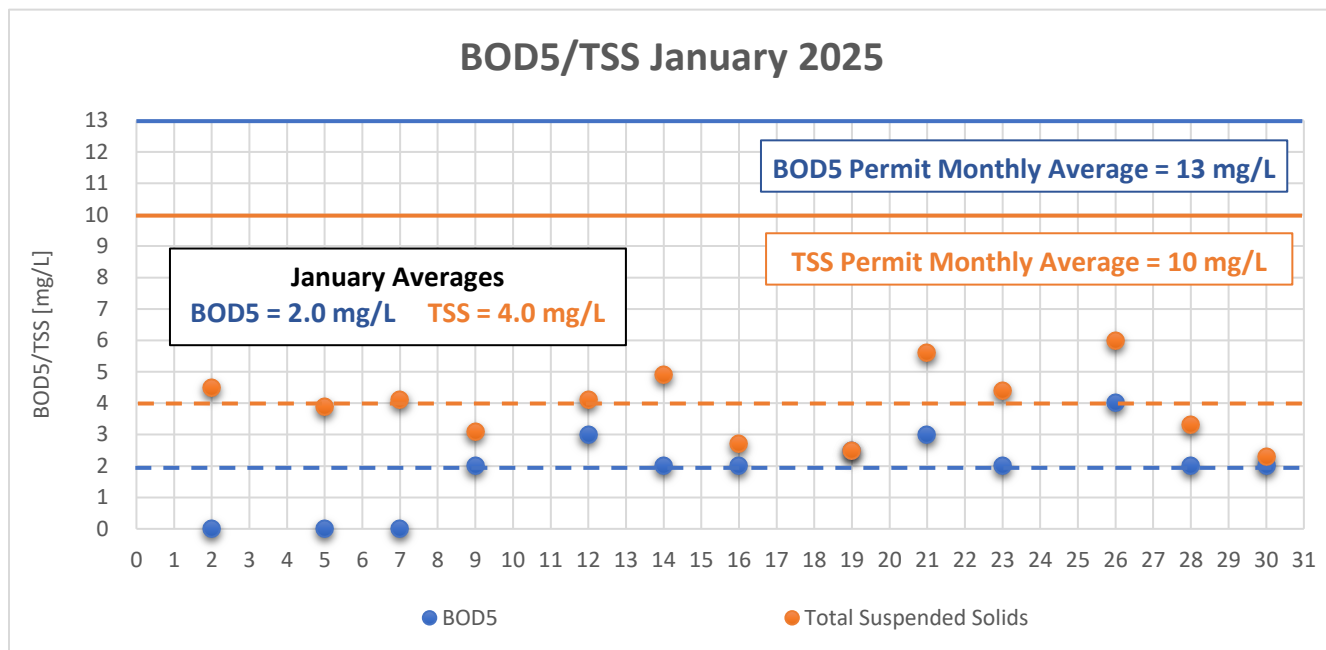


Operational Notes:

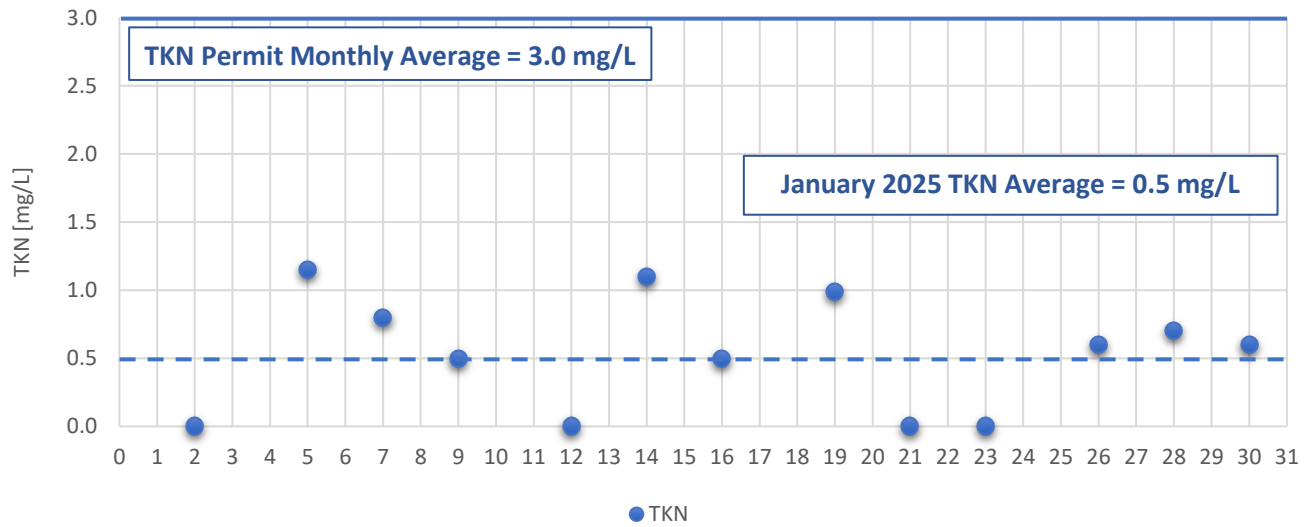
BOD, TSS, Ammonia, TKN, and E. Coli samples were collected in compliance with the WWTP permit.

- Effectively managing solids inventory.
- Blowers installed in Heritage Pines and Maury Heights lift stations after septic truck pumped out the grease.
- IES brought Hayward to the wastewater facility to create a list and identify aging equipment.
- Biological activity has increased therefore creating slightly more sludge; this is indicative of the wastewater biology adapting to colder temperatures. This in turn has resulted in a higher volume of waste per day.
- IES is looking into polymer addition to help digester solids settling efficiency, which may help the dewaterability of the solids on the sand drying beds and decrease sludge hauling.
- IES, Town of Bowling Green discussed possible CIP (capital improvement plan) ideas to enhance sludge disposal as well as treatment reliability and long-term solutions.
- Performed preventative maintenance to include checking fluids, belts, and filters.

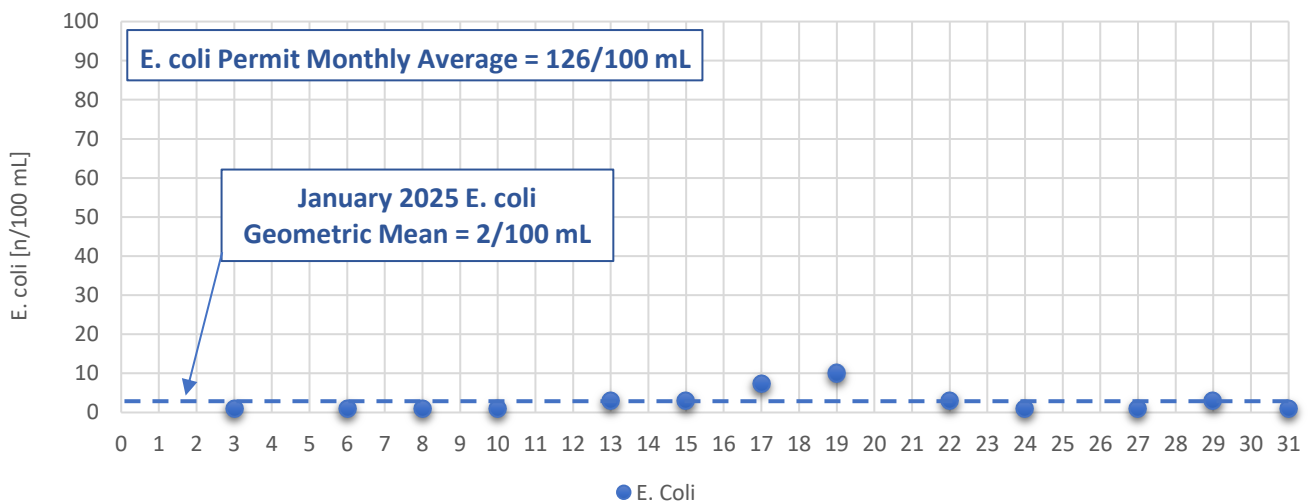
Sample Results:



TKN January 2025



E. coli January 2025



Glossary

Bacteria	E.coli and/or Total Coliform
BOD5	5-day Biochemical Oxygen Demand
CBOD	Carbonaceous Biochemical Oxygen Demand
cfu	colony forming unit
CIP	Capital Improvement Plan or Cast/cleaned-in-place
Cl	Chloride Ion
Cl2	Chlorine
CMF	Continuous Membrane Filtration?
D.O.	Dissolved Oxygen
F/M ratio	Food to Microorganism ratio
FOG	Fats, Oil and Grease
GST	Ground Storage Tank
HWTP	Harmony Water Treatment Plant
I&I	Infiltration and Inflow
Inorganic Nitrogen	Nitrate + Nitrite
LS	Lift Station
mg/L	Milligrams per Liter
MGD	Million Gallons Per Day
mL	Milliliters
MLSS	Mixed Liquor Suspended Solids
MLVSS	Mixed Liquor Volatile Suspended Solids
MPN	Most Probable Number -bacteriological well sample
MW	Monitoring Well
N/N	Nitrate/Nitrite
Organic Nitrogen	TKN
P/A	Presence/Absence- bacteriological samples for drinking water
PFAS	polyfluoroalkyl substances
PLC	Programmable Logic Controller
POE	Point of Entry
RAS	Return Activated Sludge
SCADA	Supervisory Control and Data Acquisition
STEP	Septic Tank Effluent Pump
TKN	Total Kjeldahl Nitrogen
TN	Total Nitrogen
TP	Total Phosphorous
TR-6	Copper sequestering chemical for wastewater
TSS	Total Suspended Solids
UV	Ultraviolet Light
WTP	Water Treatment Plant
WWTP	Wastewater Treatment Plant