

2021 LTL INLET TESTING RESEARCH
by

FWS(qPCR) & SOS(eColi/Nitrate)

July 16, 2021

Submitted by LTLA
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2021 WATER QUALITY TESTING of SIX INLETS on LTL

Description of testing, frequency, and locations of Inlets

- Freshwater Solutions using qPCR for testing enteric bacteria and HF183 (Human Bacteria).
- LTLA utilizing SOS Lab to test for eColi & Nitrate
- This was a one time test after a substantial rain conducted on 7/16/2021
- Locations shown on page 3(description) & page 4(Map)
- Test results shown on page 3
- Note this is a follow up to the 2019 FWS qPCR Inlet Testing ([Link](#))

Conclusions

- eColi reading were low with only two readings over 132 (387 & 276 in the Bufka Bog inlet)
- Nitrate reading were low throughout the inlets
- qPCR Enteric Bacteria values were moderately high (750 to 1224)) with the higher readings at the Bufka Bog, similar to the 2019 tests.
- There was one positive HF 183 (Human Bacteria) at Swanson Preserve North Creek. This also occurred in 2019 at the Bufka Bog Additional research is required to determine why there are such high enteric readings from inlets from wetland areas and why there are positive HF 183 readings from areas that appear to not have septic fields.

LTL INLET TESTING on July 16,2021

| Number | Name & Location | S.O.S. Testing Lab | | Freshwater Solution | |
|--------|--------------------------------------|--------------------|---------|---------------------|----------|
| | | eColi | Nitrate | qPCR | HF-183 |
| # 1 | Swanson Preserve North Creek | 33 | 1.42 | 750.28 | Positive |
| # 2-1 | Shetland Creek @ Mouth | 96 | ND | 847.45 | Negative |
| # 2-2 | Shetland Creek-651 E Harbor Hwy | 99 | ND | 1136.98 | Negative |
| # 2-3 | Shetand Creek-LL Dam | 2 | ND | BLD | Negative |
| # 3-1 | Bufka Bog-Key Hole @ Mouth | 387 | 0.92 | 1224.33 | Negative |
| # 3-2 | Bufka Bog-Key Hole across TL Rd | 276 | 0.83 | BLD | Negative |
| # 4-1 | Shutz West Creek @ Mouth | 132 | 0.36 | 1125.25 | Negative |
| # 4-2 | Shutz West Creek @ Mouth (creek-mid) | 128 | 0.52 | 954.63 | Negative |
| # 4-3 | Shutz West Creek across TL Rd | 7 | 0.79 | 957.97 | Negative |
| # 5 | Willis West Creek | 96 | 0.17 | 341.95 | Negative |
| # 6 | Swanson Preserve South Creek | 62 | 0.93 | 836.24 | Negative |

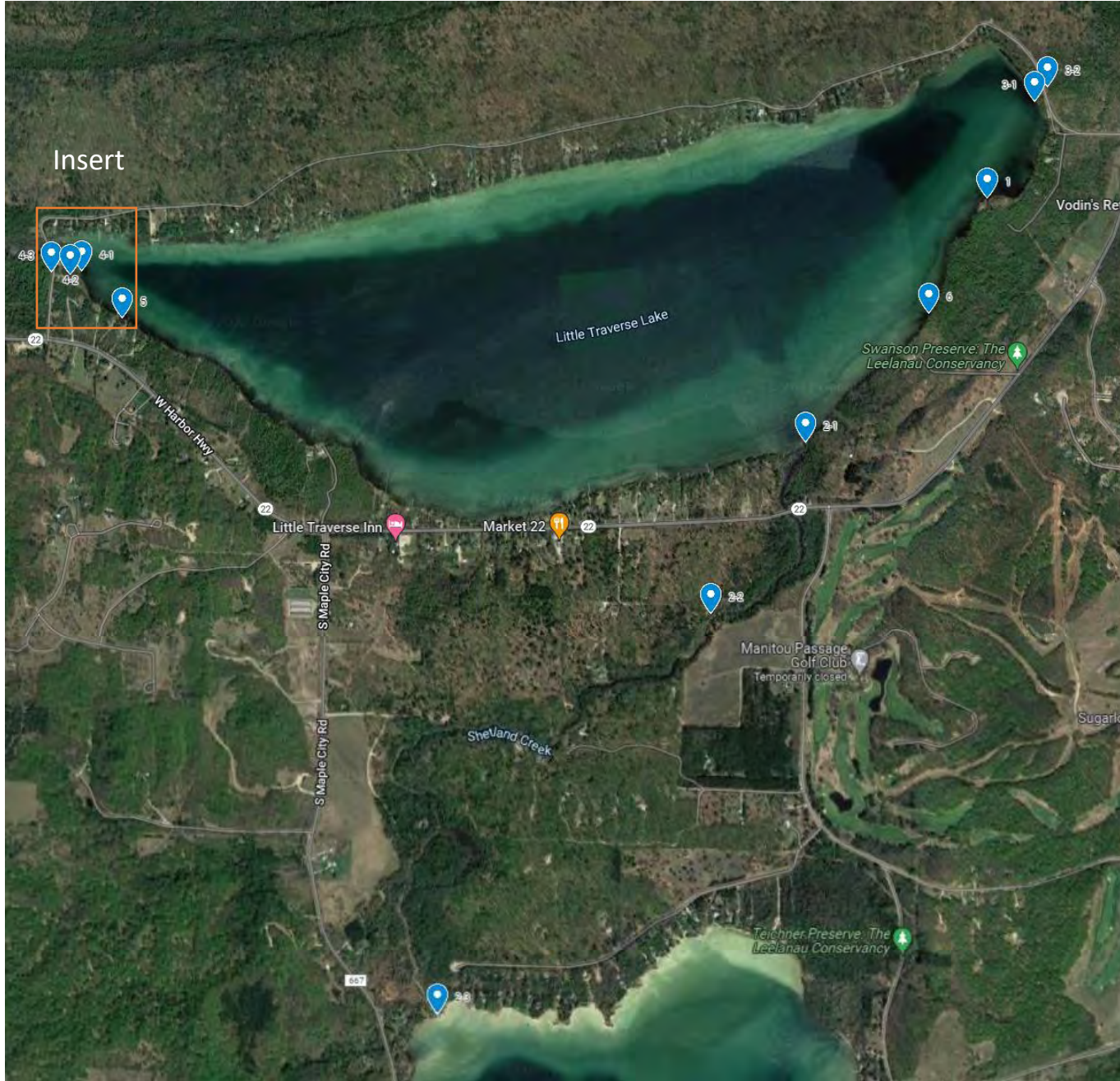
(ND) Not Detected

The limit of detection for Nitrogen is 0.10 mg/L

(BLD) Below Limit of Detection

(HF-183) Bacteria Unique to Humans

LTL inlet testing sites 7/16/21



Inserted from full map

