Clean Jordan Lake

Impacts of Stormwater Runoff on Trash Accumulation along the Jordan Lake Shoreline

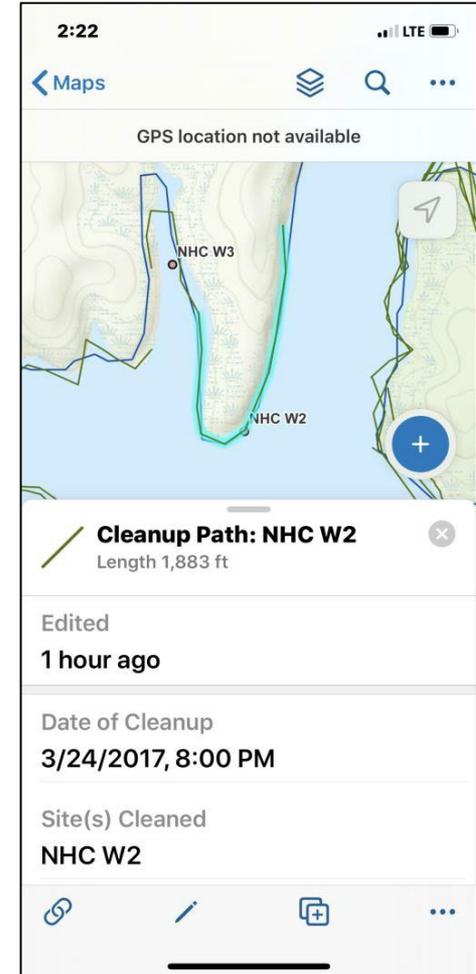# NCSU MGIST Capstone Project

Laurel Krynock, GIS Administrator
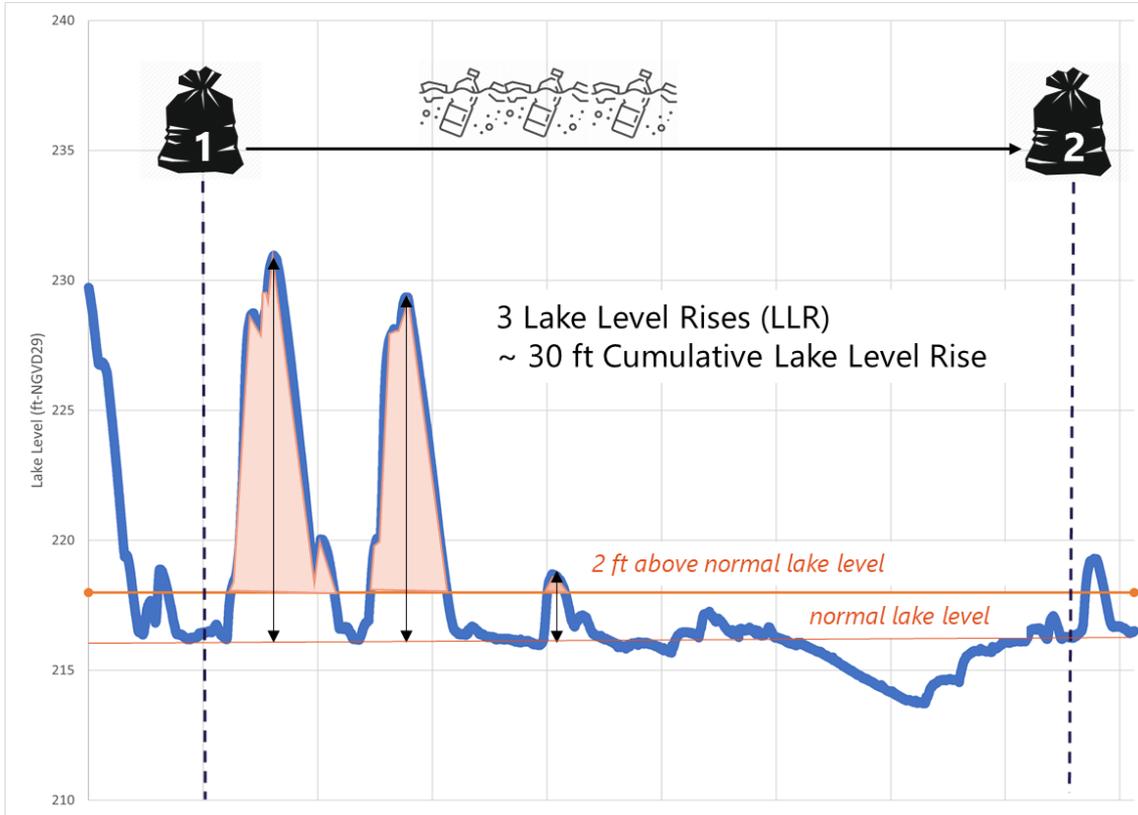**Office of the University Architect**
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Project Overview

- Develop GIS to store existing and future cleanup event data

- Develop tool to determine significant rainfall events and compute trash loading metrics for cleanup events at each site

- Develop GIS mapping applications:

  - data collection tool to enter new cleanups

  - public-facing web mapping application to examine cleanups and stormwater impacts
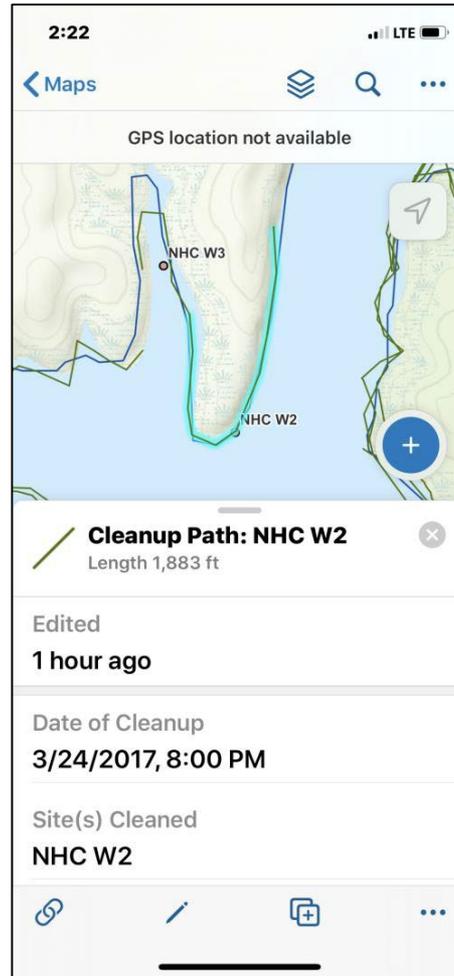
Trash Loading Metrics

3 Lake Level Rises (LLR)
~ 30 ft Cumulative Lake Level Rise

2 ft above normal lake level

normal lake level

Compute for Cleanup 2:

$$\frac{lb\ trash}{(\frac{length}{100ft}) * LLR}$$

$$\frac{lb\ trash}{(\frac{length}{100ft}) * ft\ CLLR}$$

[Collector Application](#)
(click to view demo video)

[Web Mapping Application](#)
(click to view site)

Impact of Work

- Expanded toolset to maintain and analyze trash cleanup data
  - improve data quality

- Many ways to analyze and visualize trash accumulation

- Trash metrics reveal stormwater impacts
  - Target future cleanups
  - Education and awareness

Thank you!

Q & A