

Department of Environmental Quality

Pre-Regulatory Landfill Program

Gill Street Park

ID# NONCD0000201





What is a Pre-Regulatory Landfill?



- Operated in communities across the state prior to regulations controlling disposal and management of waste.
  - 688 sites
- No landfill construction standards:
  - No landfill liners/barriers
  - No setbacks/buffers from roads, streams, etc.
  - No landfill closure requirements
- No disposal regulations
  - Hazardous/industrial waste
  - Medical waste
  - Asbestos containing material waste
- No reporting or long-term monitoring

What is the Pre-Regulatory Landfill Program?

- Collaboration between DEQ employees and consultants
  - DEQ geologists and engineers
  - Contracts with professional environmental consulting firms

- PRLF Program receives half of the state-wide solid waste disposal which is ~ $12 million per year to pay for:
  - Investigation (sampling to define waste extent and potential impacts)
  - Remedial action plan (plan to address waste and associated impacts)

- Annual income pays for approximately 2 remedial action plans per year

How Does the Pre-Regulatory Landfill Program Work?

- Determine the location and waste boundary
- Determine the extent of contamination beyond the waste boundary
  - Groundwater
  - Surface water
  - Landfill vapors
- Establish potential exposure/risk to receptors (humans and environment) for each landfill site, such as drinking water, contact with soil, breathing vapors
- Mitigate (reduce) and/or control risk to current or future receptors
  - Vapors entering structures
  - Drinking water treatment systems
  - Cover the waste with clean soil
  - Perpetual land use restrictions
  - Long-term monitoring of site

Resources Outside the Pre-Regulatory Landfill Program

- Waste and/or contamination found on private property
  - NC DEQ Contaminated Property: Issues and Liabilities Handout
  - Contact NC Real Estate Commission – (919) 875-3700

- Contact the following for health-related information:
  - County health department
  - North Carolina Department of Health & Human Services, Occupational & Environmental Epidemiology Branch – (919) 707-5900

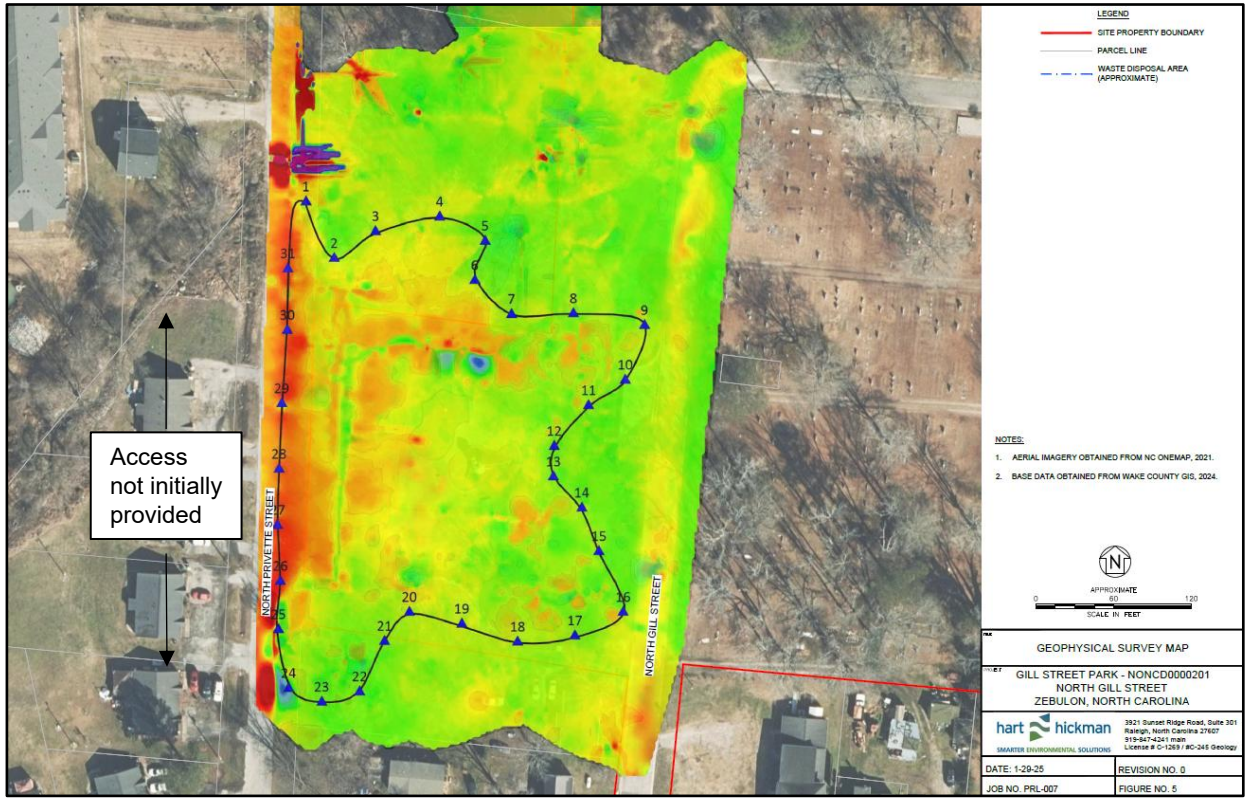
Gill Street Park (NONCD0000201)
600 N. Privette Street, Zebulon, NC



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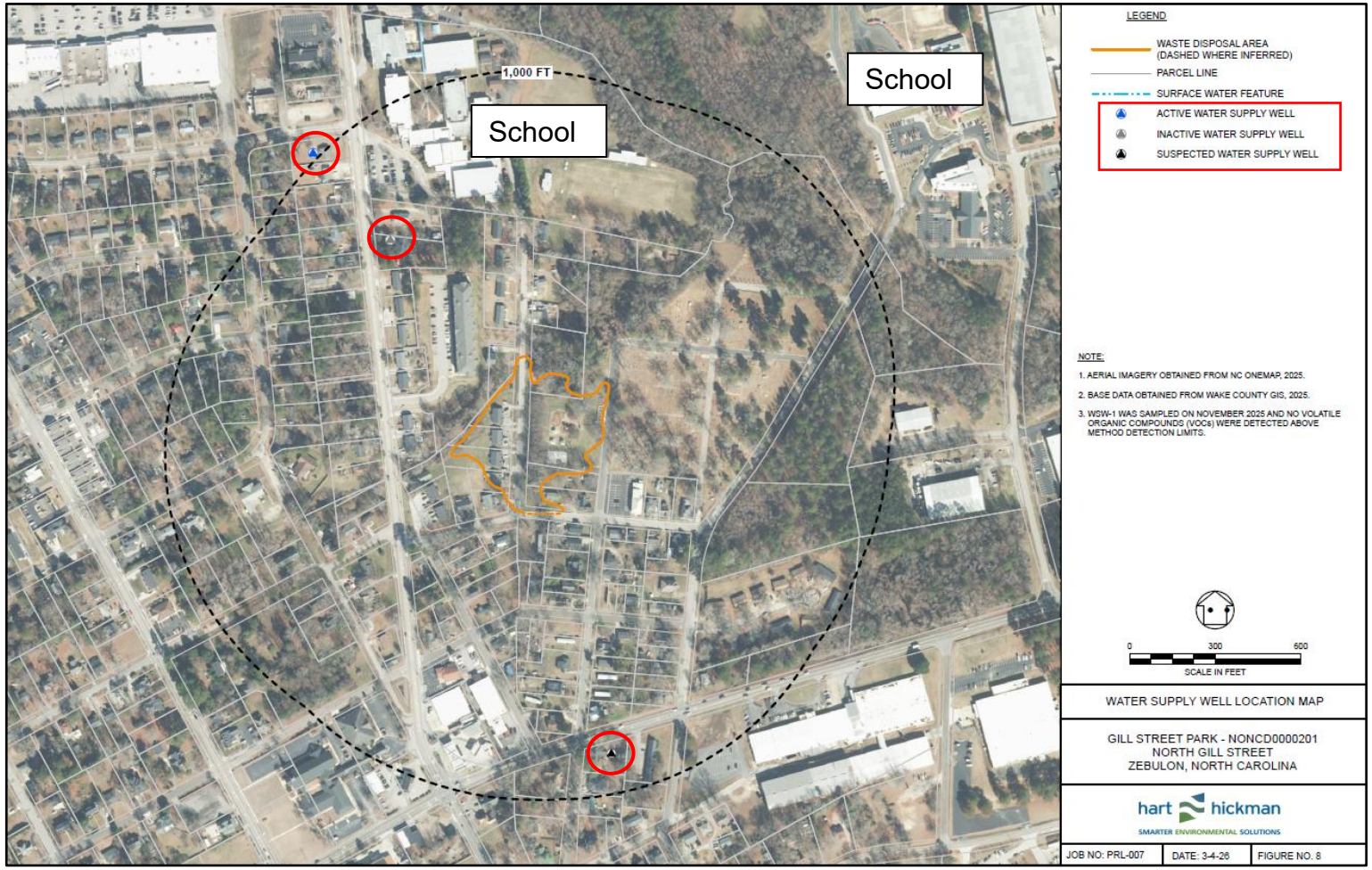
Completed Task Orders – Gill Street Park

- Geophysical Investigation
  - Geophysical survey (instrument run over the land to find landfill waste beneath the soil surface) conducted to evaluate the horizontal extent of the waste disposal area (*where access was initially provided*)



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Completed Task Orders – Gill Street Park



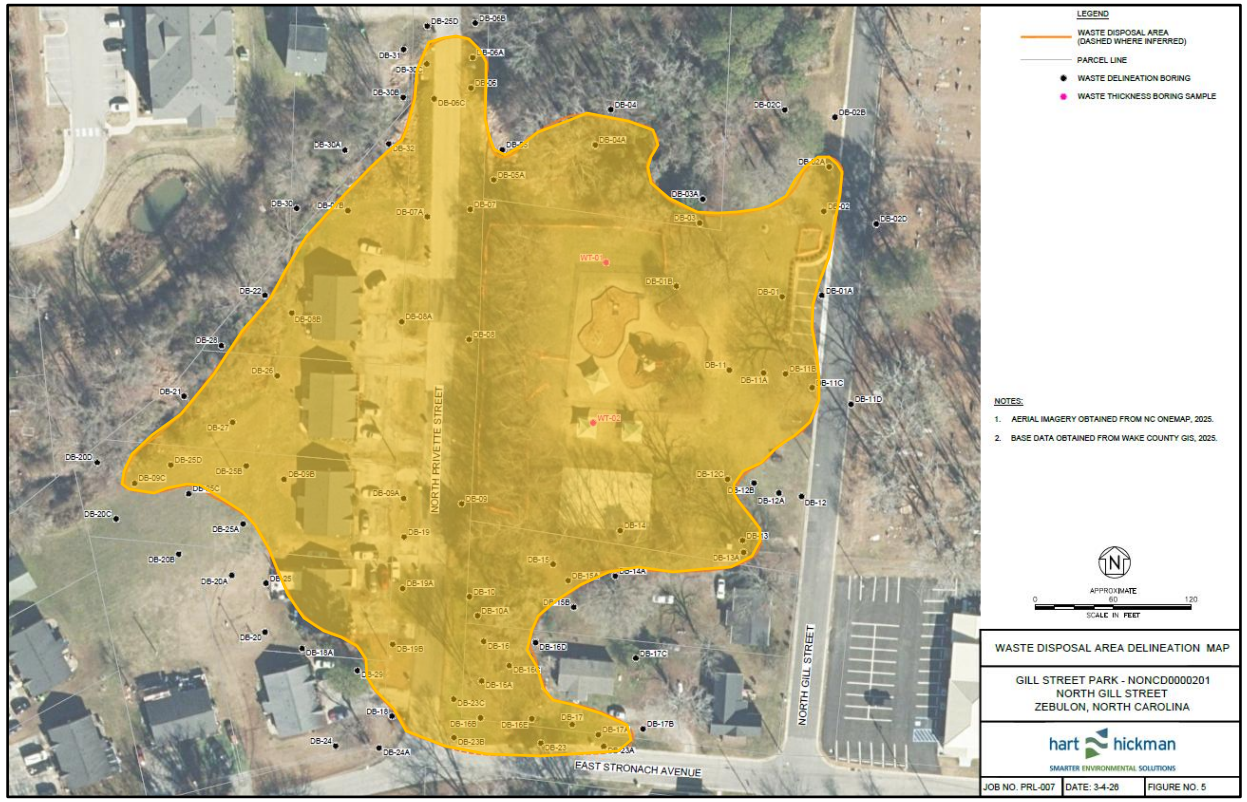
- Water Supply Well Information & Sampling
  - Three potential wells identified and one sampled
  - Residences connected to municipal water
  - Recent public mailing completed to identify any additional wells within 500 feet

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- Waste Disposal Area Delineation
  - Based on the geophysical study, soil borings were advanced to outline the waste boundary
  - Distinguished surface debris and landfill waste beneath the surface from clean fill and native soil
  - Approximately 3.64+ acres
  - Additional waste disposal area delineation needed south of E. Stronach Avenue (*pending access*)



Completed Task Orders – Gill Street Park

- Vapor Assessment and Monitoring
  - Permanent and temporary landfill gas/soil gas sampling locations installed across site
  - Volatile organic compounds (VOCs – chemicals that may be released into the air from products, soil, or water) are present but do not exceed applicable standards at residential properties
  - Quarterly landfill gas/soil gas monitoring on-going

- Groundwater Investigation
  - A network of five monitoring wells installed/sampled to-date
  - Limited VOCs, semi-VOCs, and metals exceeded DEQ Groundwater Quality Standards
  - No ingestion risk (i.e., drinking wells) on-site or near the site
  - Quarterly groundwater monitoring on-going

Completed Task Orders – Gill Street Park

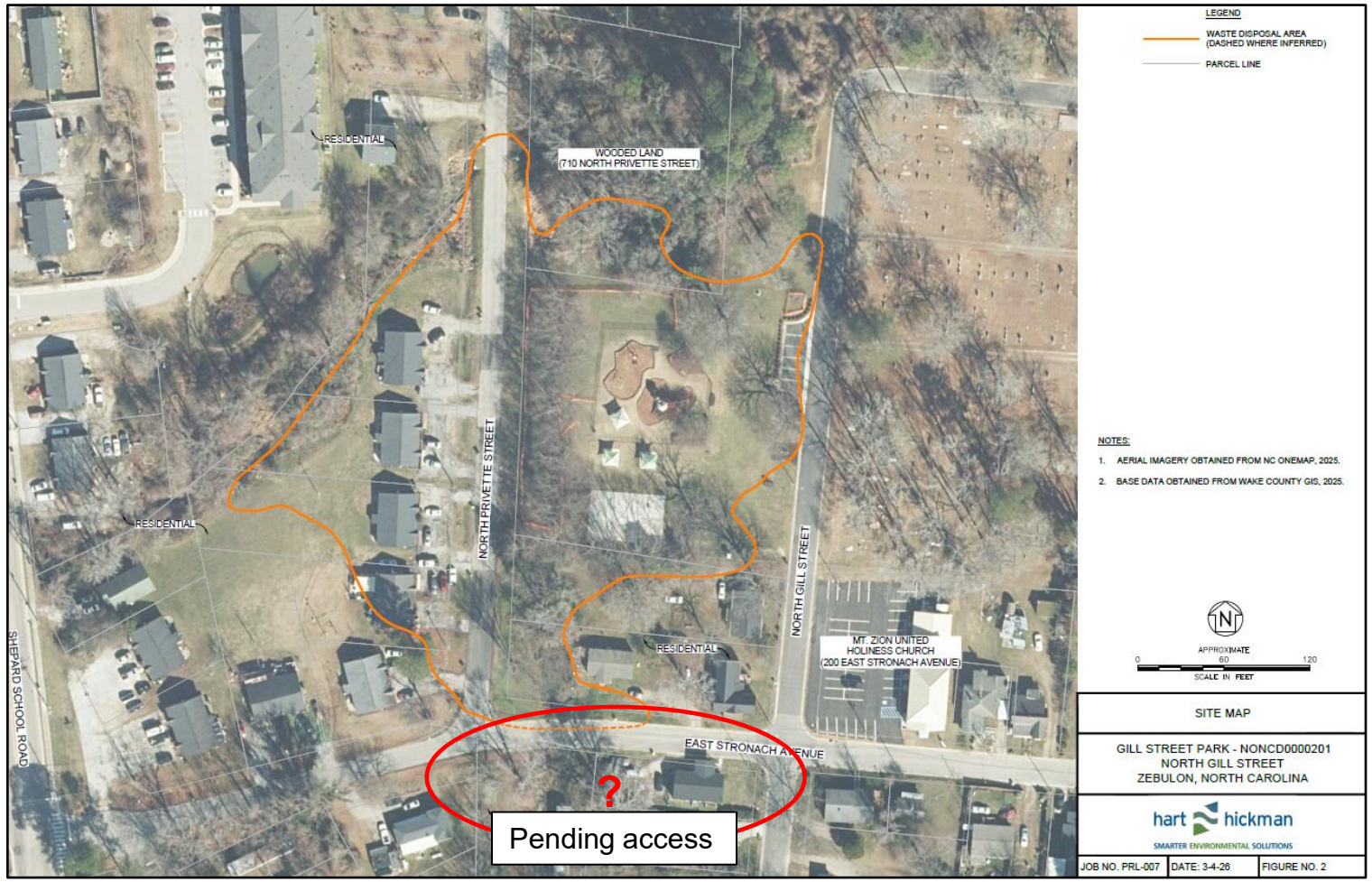


- Soil Cover Evaluation
  - Evaluated the soil above landfill waste (soil cover)
  - Areas identified with less than 12 inches of soil above waste (inadequate soil cover)
  - Identified areas of lead concentrations greater than 200 milligrams per kilogram or parts per million (residential standard)
  - Impacted properties notified

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Next Steps – Gill Street Park



- Further waste disposal area delineation
  - April/May 2026
- Quarterly groundwater, surface water, and landfill gas/soil gas monitoring
  - April/May 2026 through January 2027

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Next Steps – Gill Street Park

- Remedial Investigation (RI) Summary Report (~Q2/Q3 2027)
  - Once all media (groundwater, soil, vapor, surface water) have been evaluated in accordance with DEQ guidelines, a RI Report will be prepared to summarize all activities completed to-date

- Preparation of draft Remedial Action Plan (~Q1/Q2 2028)
  - Recordation of land use restrictions & notice of environmental contamination for all affected properties
  - Installation of protective soil cover system (12 inches of soil covering landfill waste), where feasible
  - Public comment period for community input

Thank you

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- H&H Project Manager
  - Carlin Slusher – (919) 723-2517; cslusher@harthickman.com
- Additional contacts – see handout