

GILL STREET PARK PRE-REGULATORY LANDFILL ZEBULON, NC

PRLF ID# NONCD0000201



Location of Gill Street Park Pre-Regulatory Landfill in Zebulon, North Carolina

SITE LOCATION

One approximately 3.6-acre waste disposal area is associated with the Gill Street Park Pre-Regulatory Landfill (PRLF) site. The waste disposal area covers most of Gill Street Park and extends onto at least seven residential properties to the west along North Privette Street and south along East Stronach Avenue and North Gill Street. The park area is presently covered with a playground, basketball court, picnic tables, grass, and landscaping. The residential properties are presently covered with grass, landscaping, and asphalt/gravel driveways.

Instructions for accessing file records and reports are available at:

<https://www.deq.nc.gov/about/divisions/waste-management/waste-management-online-documents-and-environmental-data>

SITE HISTORY

The Gill Street Park is a PRLF located in Zebulon, North Carolina. The opening date of the landfill is unknown but historical records show the landfill operated from at least 1964 to 1968 and may have included incinerated waste. Pre-regulatory landfills operated prior to 1983, when landfill standards were established to protect human health and the environment; therefore, pre-regulatory landfills could have included types of waste that are not currently allowed in landfills.

Between January 2025 and January 2026, the North Carolina Department of Environmental Quality (NCDEQ) Division of Waste Management conducted initial investigation activities to determine the location and depth of waste, and to evaluate impacts to various media types (i.e., soil, groundwater, landfill gas, soil gas, and crawlspace air) for properties associated with former landfilling activities and properties surrounding the former landfill.

INVESTIGATION RESULTS

- Portions of at least nine parcels along North Gill Street, North Privette Street, and East Stronach Avenue have residential and/or accessory structures overlaying the former waste disposal area.
- Portions of the former waste disposal area, mainly along North Privette Street, have less than one foot of soil covering the waste.
- Physical hazards present in the waste include glass, metal, brick, and porcelain.
- Lead has been identified at concentrations above the NCDEQ Residential Health-Based Preliminary Soil Remediation Goal and the EPA Residential Regional Screening Level in the existing soil covering the waste on the Gill Street Park area and on at least seven residential parcels along North Privette Street.

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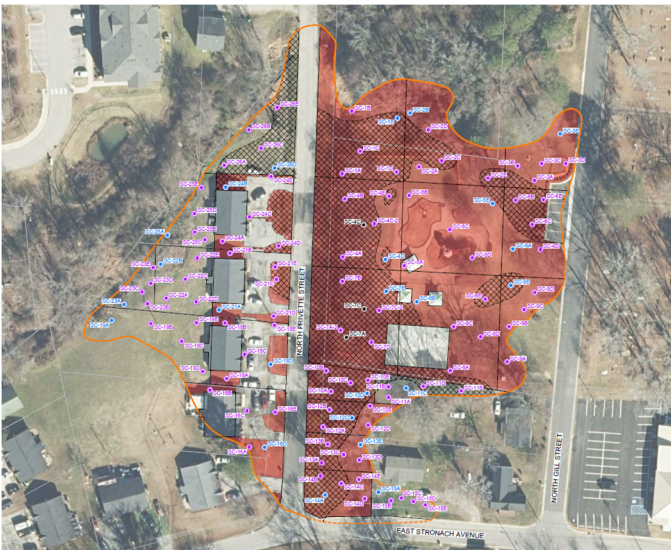
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- Eating or digging in soil could be a risk for exposure to antimony, arsenic, cadmium, cobalt, hexavalent chromium, lead, manganese, and mercury.
- Tetrachlorethylene has been identified at concentrations above the Residential and Non-Residential Sub-Slab and Exterior Soil Gas Screening Levels in the central portion of the Gill Street Park property. However, no structures are present overlying this area. Furthermore, no explosive landfill gases have been identified within the waste disposal area (based on one landfill gas screening event).
- Adjacent residential structures have been evaluated for potential vapor intrusion concerns and to-date, no concerns have been identified.
- Installing an engineered soil cover system to prevent contact with waste material and existing cover soils with exposure risks.
- Recording land use restrictions on the property deed to prevent activities that could disturb the waste and present a health risk in the future. Any activity that could disturb the soil cover will have to be pre-approved by NCDEQ.
- NCDEQ will contact property owners during the development phase in preparation for the RAP design. After the draft RAP is prepared, a public comment period will follow for public input.

For more information, contact:

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Soil cover containing lead concentrations above NCDEQ and EPA residential standards shown in red. Waste area containing less than one foot of soil cover shown with black crosshatch.

NEXT STEPS

Once remedial investigation activities are complete, a Remedial Action Plan (RAP) will be developed to eliminate contact with site contaminants and control hazards to further protect the safety of residents, recreational users, and the environment. The plan may potentially include: