



**Southside Park  
Pre-Regulatory Landfill Project**





## History of Southside Park



- Southside Park is a 21-acre park that features a playground, shelter area, two basketball courts, and fields.
- The park is situated on top of a pre-regulatory landfill before the site was converted to parkland as it remains today.
- The landfill operated from 1920s to the 1950s – mostly trash incinerator waste

## Background

- As part of Mecklenburg County's Capital Improvement Plan process to explore reinvestment in Southside Park, Mecklenburg County partnered with NCDEQ to test site stability for field expansion. Testing revealed elevated levels of lead and cobalt in the soil of some areas of the park.
- After receiving the information from NCDEQ, Mecklenburg County closed portions of the park and relocated facility reservations within two business days.

# *Pre-Regulatory Landfills (PRLF)*

- A pre-1983 landfill means any land area, whether publicly or privately owned, on which municipal solid waste disposal occurred prior to 1 January 1983 but not thereafter but does not include any landfill used primarily for the disposal of industrial solid waste.
- Pre- 1983 landfills
  - Did not have construction standards
  - Were not lined
  - No disposal regulations

# *Risks Posed by PRLFs*

- Uncontrolled mixture of solid and hazardous wastes
- Contaminated soils and exposed waste
- Uncontrolled hazardous vapors and explosive gas
- Contaminated groundwater could affect drinking water supplies
- Waste may erode into surface waters
- Waste material may have been used as fill at other properties
- No prohibition on use over or adjacent to the landfill

# *PRLF Program Process*

- 1) Contact property owner to request access permission
- 2) Remedial investigation (RI) – identify receptors, sensitive environments, and assess potentially impacted media. RI may include multiple mobilizations to the site to fully identify and delineate the extent of the contaminants of concern.
  - a) Geophysical survey and waste delineation
  - b) Above ground vapor survey
  - c) Collect surface water, groundwater, sediment, cover soil samples
  - d) Waste characterization (if applicable)
  - e) Landfill/soil gas
  - f) Sample potable water supplies
  - g) Collect background soil and groundwater samples

# *PRLF Program Process*

- 3) Remedial Action Plan (RAP) Design:
  - a) Remove surface debris (if applicable)
  - b) Slope stabilization
  - c) Permitting (Clean Water Act 404/401, stormwater and sedimentation control)
  - d) Installation of soil cover system
- 4) Review potential remedy with property owners
- 5) Recordation of land use restrictions and notice plat
- 6) Public comment period



# *PRLF Program Process*

- 7) Sub-contractor bid advertisement
- 8) Select sub-contractor and mobilize to site
- 9) Complete remedial action plan
- 10) Post construction monitoring
- 11) Release of erosion control permit
- 12) Property owner annual certification of land use restrictions

# *Land Use Restrictions*

Declaration of Perpetual Land Use Restrictions (DPLUR) include the following:

- Identifies the impacted parcels/pieces of land
- Outlines the restrictions & maintenance requirements
- Representations and warranties
- Enforcement
- Future sales, leases, conveyances and transfers
- Annual certification



# *Southside Park Landfill Remedial Investigation*

## **Cover Soil Sample Results**

NCDEQ Risk Levels and/or Lead Levels Exceeded at 14 of 64 Sample Grids/Locations

Lead and cobalt primary drivers of risk exceedances

## **Cover Soil Thickness Results**

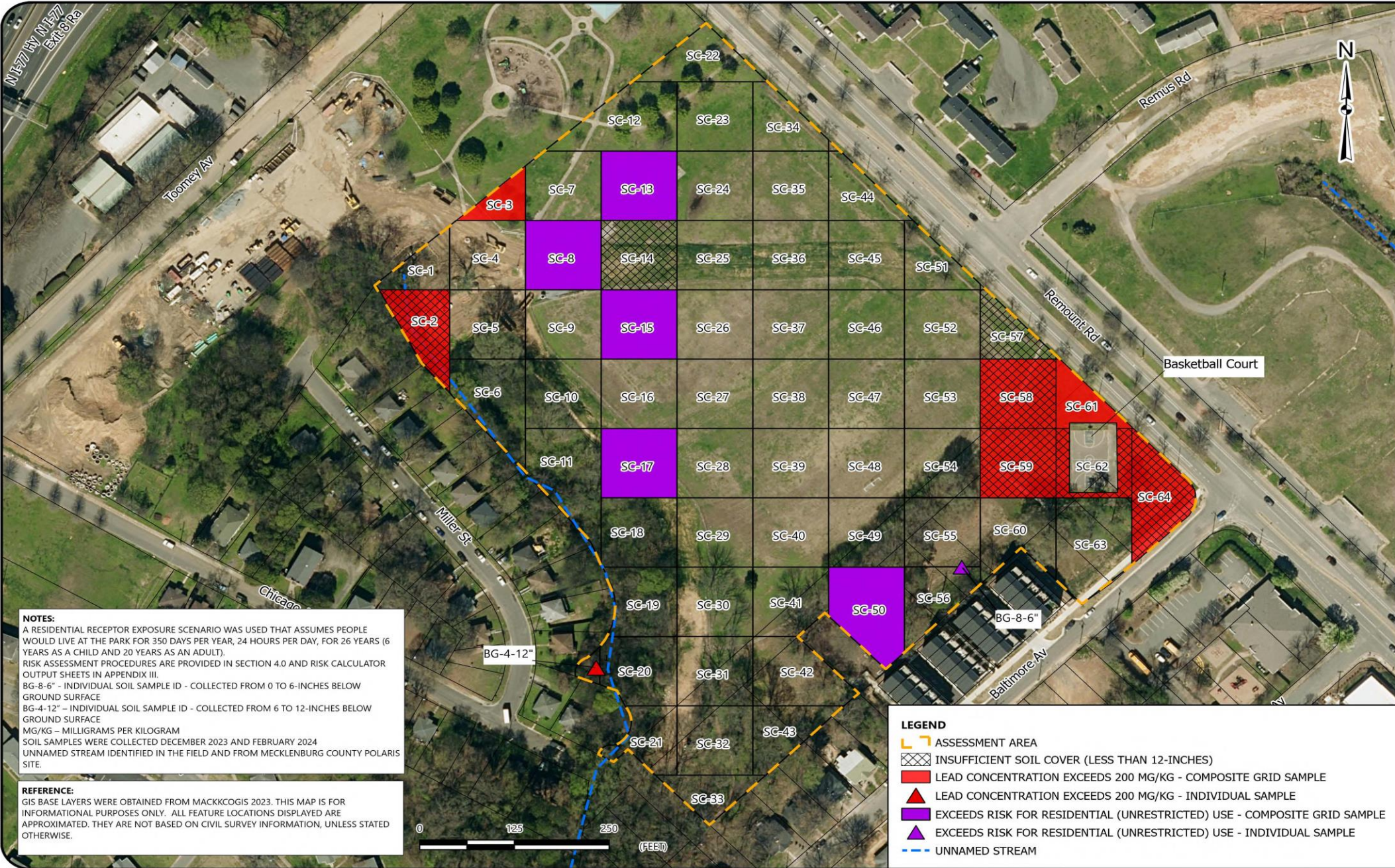
Soil cover thickness less than 12-inches at 7 of 64 Sample Grids

## **Geophysical Survey Results**

Possible indications of buried waste across the park property



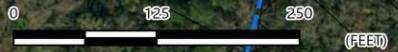
Drawing Path: T:\Raleigh-1050\Projects\2021\215952\_NCDEQ\_Southside Park Assessments\Charlotte\GIS\B1-1 & R1-2\ARC/INFO Files\Southside Park Landfill Map\Southside Park LF 7-30-24 Update.aprx plotted by jmaybry



**NOTES:**  
 A RESIDENTIAL RECEPTOR EXPOSURE SCENARIO WAS USED THAT ASSUMES PEOPLE WOULD LIVE AT THE PARK FOR 350 DAYS PER YEAR, 24 HOURS PER DAY, FOR 26 YEARS (6 YEARS AS A CHILD AND 20 YEARS AS AN ADULT).  
 RISK ASSESSMENT PROCEDURES ARE PROVIDED IN SECTION 4.0 AND RISK CALCULATOR OUTPUT SHEETS IN APPENDIX III.  
 BG-8-6" - INDIVIDUAL SOIL SAMPLE ID - COLLECTED FROM 0 TO 6-INCHES BELOW GROUND SURFACE  
 BG-4-12" - INDIVIDUAL SOIL SAMPLE ID - COLLECTED FROM 6 TO 12-INCHES BELOW GROUND SURFACE  
 MG/KG - MILLIGRAMS PER KILOGRAM  
 SOIL SAMPLES WERE COLLECTED DECEMBER 2023 AND FEBRUARY 2024  
 UNNAMED STREAM IDENTIFIED IN THE FIELD AND FROM MECKLENBURG COUNTY POLARIS SITE.

**REFERENCE:**  
 GIS BASE LAYERS WERE OBTAINED FROM MACKKCOGIS 2023. THIS MAP IS FOR INFORMATIONAL PURPOSES ONLY. ALL FEATURE LOCATIONS DISPLAYED ARE APPROXIMATED. THEY ARE NOT BASED ON CIVIL SURVEY INFORMATION, UNLESS STATED OTHERWISE.

- LEGEND**
- ASSESSMENT AREA
  - INSUFFICIENT SOIL COVER (LESS THAN 12-INCHES)
  - LEAD CONCENTRATION EXCEEDS 200 MG/KG - COMPOSITE GRID SAMPLE
  - ▲ LEAD CONCENTRATION EXCEEDS 200 MG/KG - INDIVIDUAL SAMPLE
  - EXCEEDS RISK FOR RESIDENTIAL (UNRESTRICTED) USE - COMPOSITE GRID SAMPLE
  - ▲ EXCEEDS RISK FOR RESIDENTIAL (UNRESTRICTED) USE - INDIVIDUAL SAMPLE
  - UNNAMED STREAM



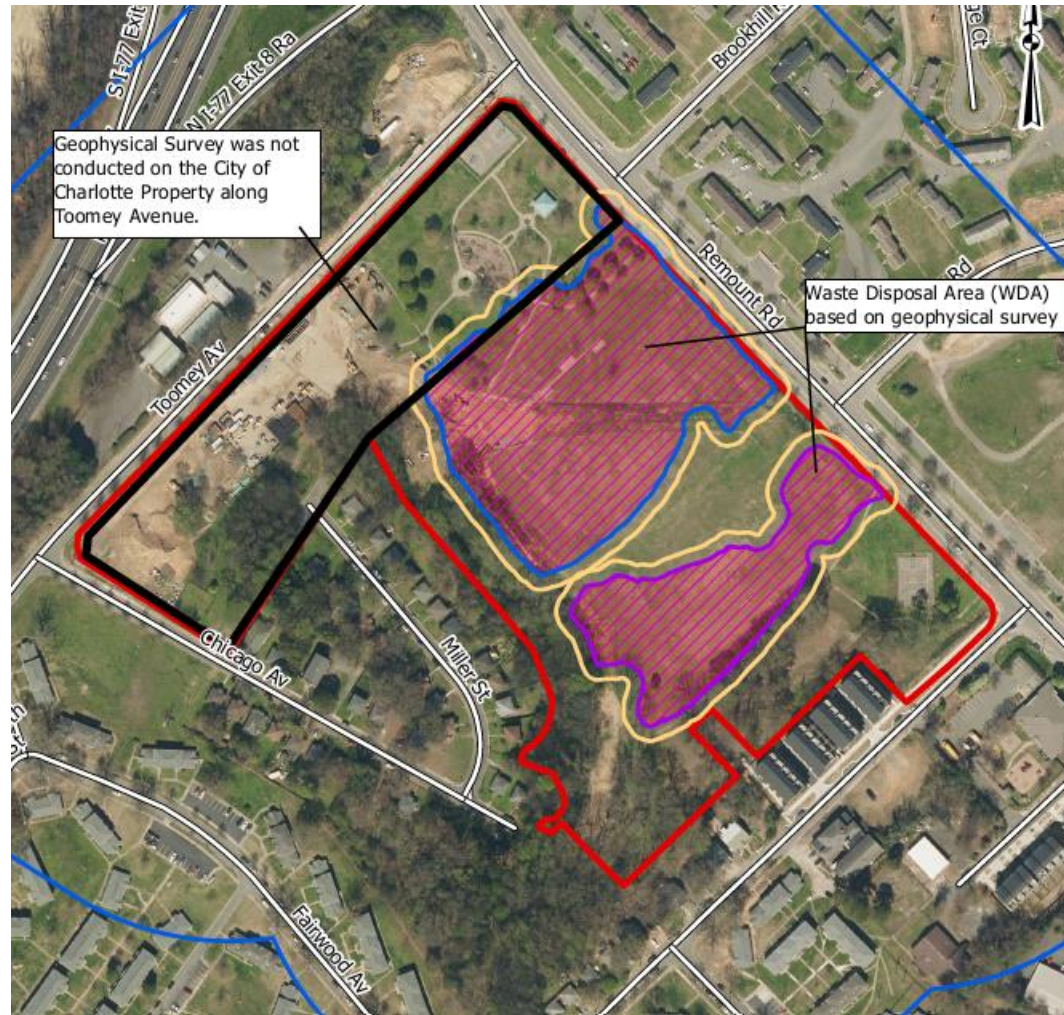
**SOIL COVER ASSESSMENT SUMMARY**

SOUTHSIDE PARK LANDFILL  
 NCDEQ ID NO. NONCD0000807 - TASK ORDER 807RI-2  
 TOOMEY AVE, CHARLOTTE, MECKLENBURG COUNTY, NORTH CAROLINA

SCALE:  
 1 in = 125 ft  
 Date:  
 8/1/2024  
 PROJECT NUMBER  
 215952  
 FIGURE NO.



# Geophysical Survey Map



# *Additional PRLF Parkland Sites*

- City of Durham, NC
- Town of Zebulon, NC
- City of Greensboro, NC





# *Pending Investigations*

- Waste Delineation Borings
  - Delineate the approximate waste boundary based upon the results of the Geophysical Survey.
- Background Soil Sampling to assess naturally occurring concentrations of metals in native soil.
- Surface Water Assessment.

# *Pending Investigations*

- Groundwater Assessment
  - To assess concentrations (if present) of groundwater constituents.
- Soil Gas Assessment
  - To assess concentrations (if present) of soil gas/landfill gas constituents.
- Remedial Investigation Summary Report

# Southside Park Restricted Access

- Installed fencing to restrict access to identified areas.
- Fenced playground and shelter area
- Relocated field reservations to other sites.
- Coordinated with NCDEQ.





# Public Health



- Should I be concerned?
  - Lead and cobalt are found naturally in all parts of the environment including air, water and soil. Exposure to lead and cobalt can affect every organ of the body. Limiting exposure to these elements reduces the potential risk to community health.
- What does testing look like for me?
  - A blood test is available for adults and children to measure the amount of lead in your blood. Children are commonly tested for lead poisoning; you should discuss with your doctor or nurse if testing is recommended for you.
- Public Health's lead program for children
- [Environmental Health Lead Program](#)



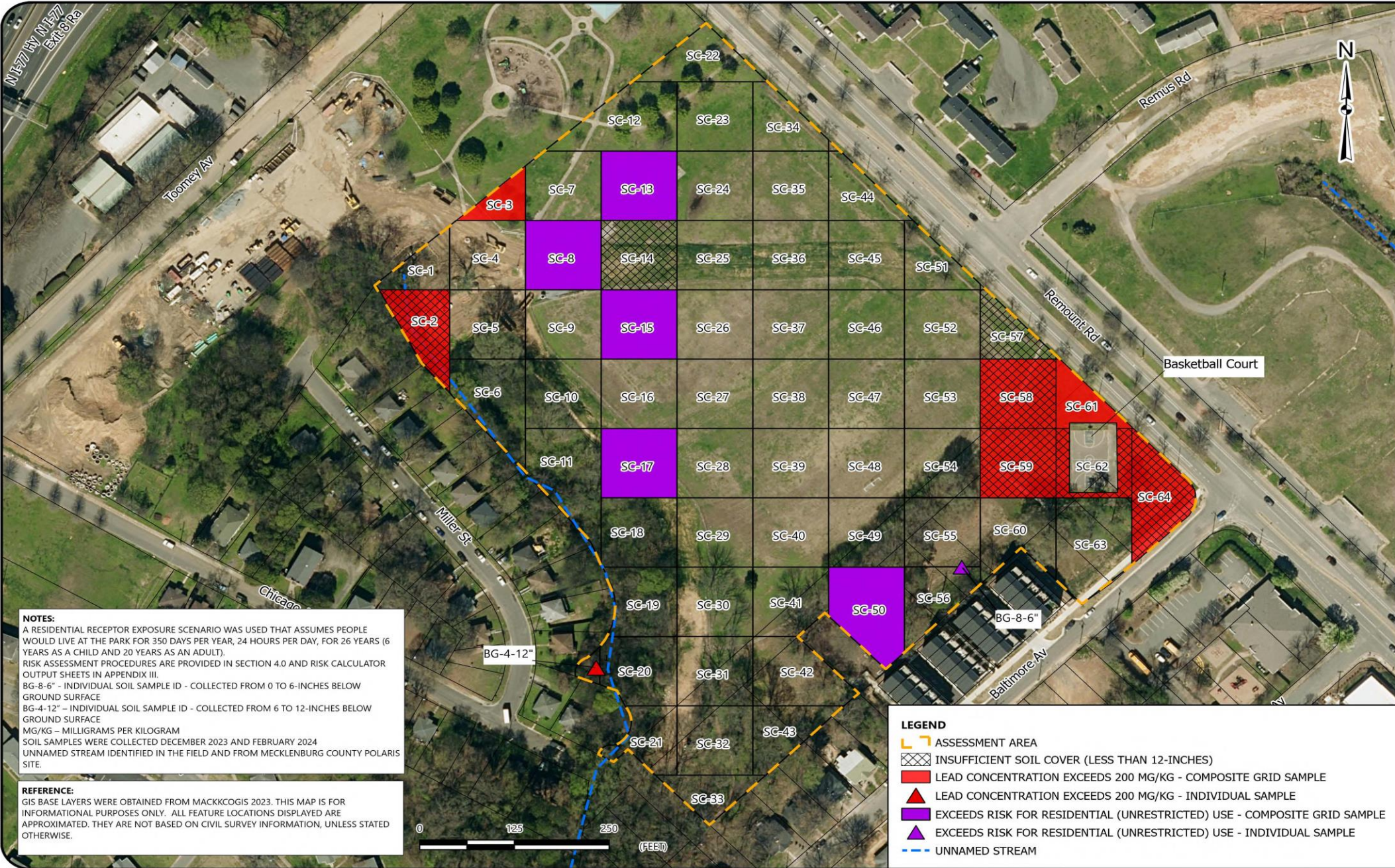
# Questions?



Mecklenburg County  
Park and Recreation



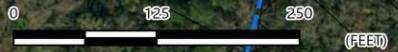
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# *PRLF Program Funding*

- A state-wide solid waste disposal tax of \$2 per ton is collected for waste disposed at permitted landfills.
- 50 percent of the disposal tax is deposited into the Inactive Hazardous Sites Cleanup Fund (IHSCF).
  - Average annual fund ~ \$12 million
- The Pre-Regulatory Landfill (PRLF) Program uses funds from the IHSCF to investigate and mitigate risks posed by pre-1983 landfills.