

A photograph of the Garwood Borough Athletic Field Complex. In the foreground, there is a paved parking lot with white lines. In the middle ground, there is a two-story building with a brown roof and white siding. To the right of the building is a baseball field with a green fence and bleachers. The background is filled with bare trees, suggesting a late autumn or winter setting.

GARWOOD BOROUGH ATHLETIC FIELD COMPLEX AND THE SITE REMEDIATION PROCESS

Christina Ariemma, RMC, Borough Administrator/Clerk

**Daniel Toder, PG, LSRP, Vice President
Hatch Mott MacDonald**

**League of Municipalities - Mayor's Roundtable
June 15, 2011**









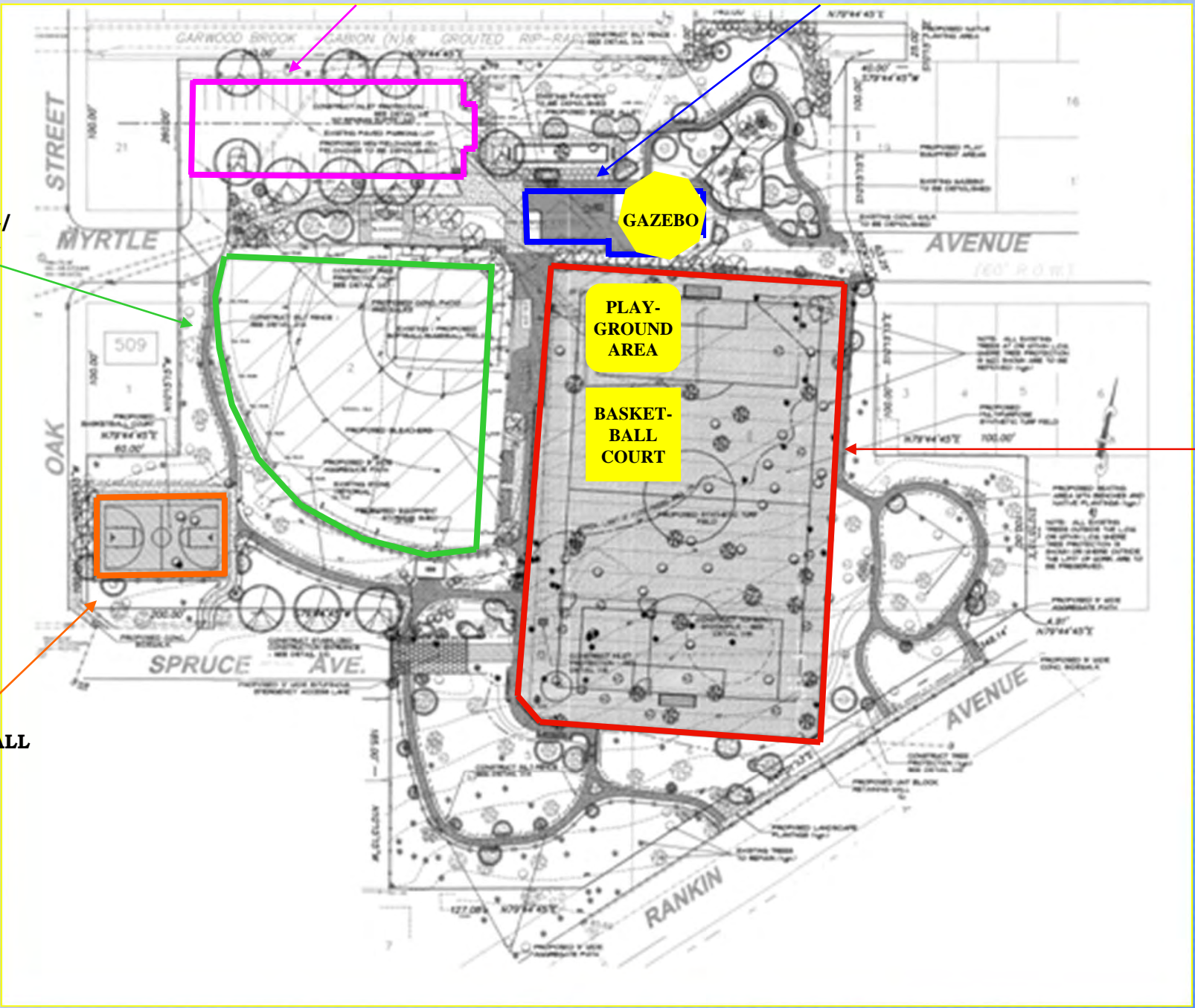


PARKING LOT

BUILDING WITH DECK

**SOFTBALL/
BASEBALL
FIELD**

**BASKETBALL
COURT**



GAZEBO

**PLAY-
GROUND
AREA**

**BASKET-
BALL
COURT**

**SOCCER
FIELD**

Site Remediation Process

First Step-

Preliminary Assessment / Site Investigation

Always Required when Green Acres funding sought

Only 1 AOC found - HISTORIC FILL @ 2-4 ft.

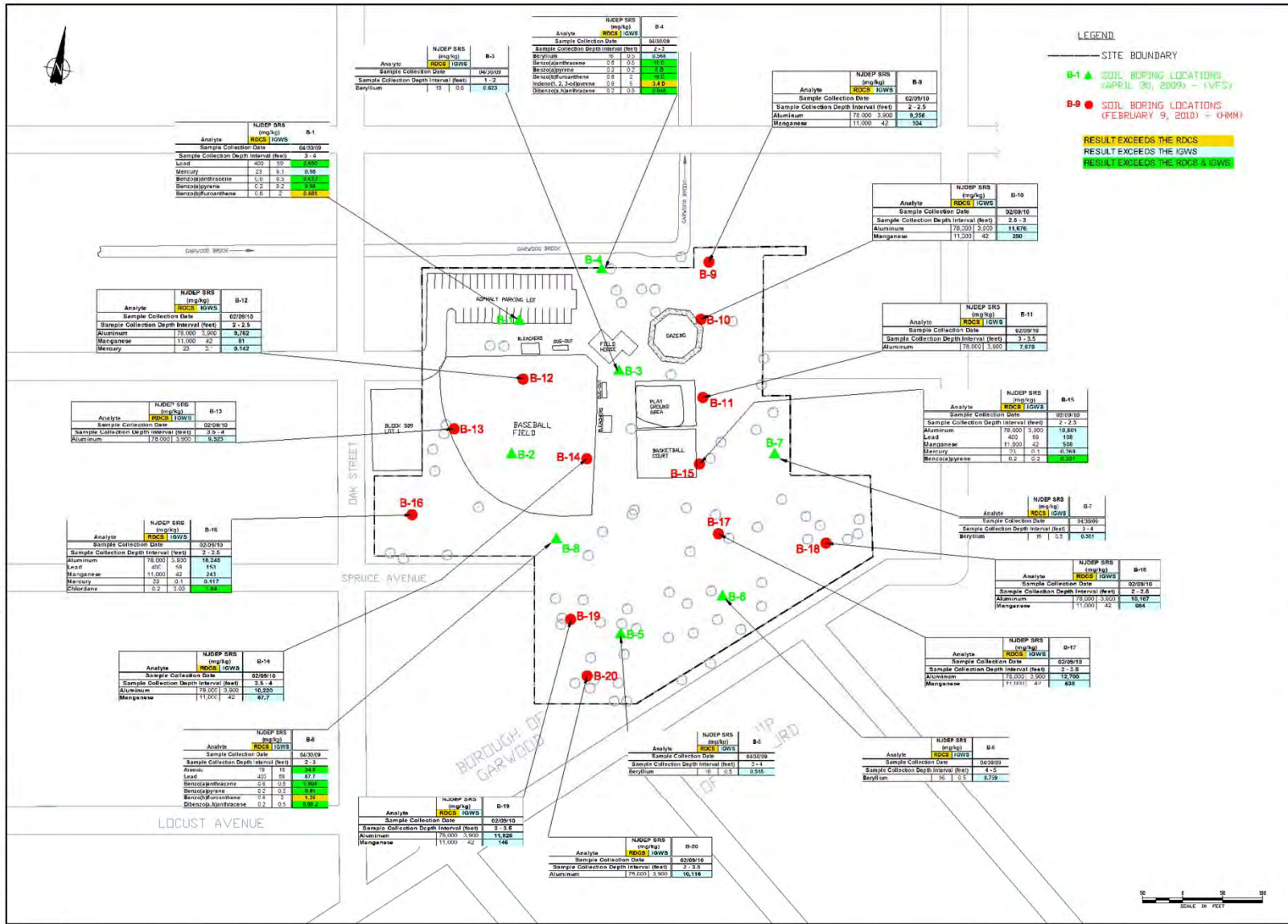
Historic Fill is imported material to raise site elevation; may consist of construction debris, dredge spoils, fly ash, demolition debris incinerator residue or non-hazardous solid waste

Site Remediation Process

Historic Fill investigation for a 5 acre site
4 borings/acre = 20 soil borings.

8 initial borings to investigate Historic Fill

3 of the initial borings found Historic Fill



HATCH MOTT MACDONALD
 27 Bishop Street
 Millburn, New Jersey 07041

BOROUGH OF GARWOOD
 GARWOOD ATHLETIC FIELD COMPLEX
 SOIL SAMPLE EXCEEDANCES (February 2009)

Figure 1

Site Remediation Process

Added 12 soil borings – did not find historic fill in these additional borings but.....

Chlordane (pesticide) was found in B-16

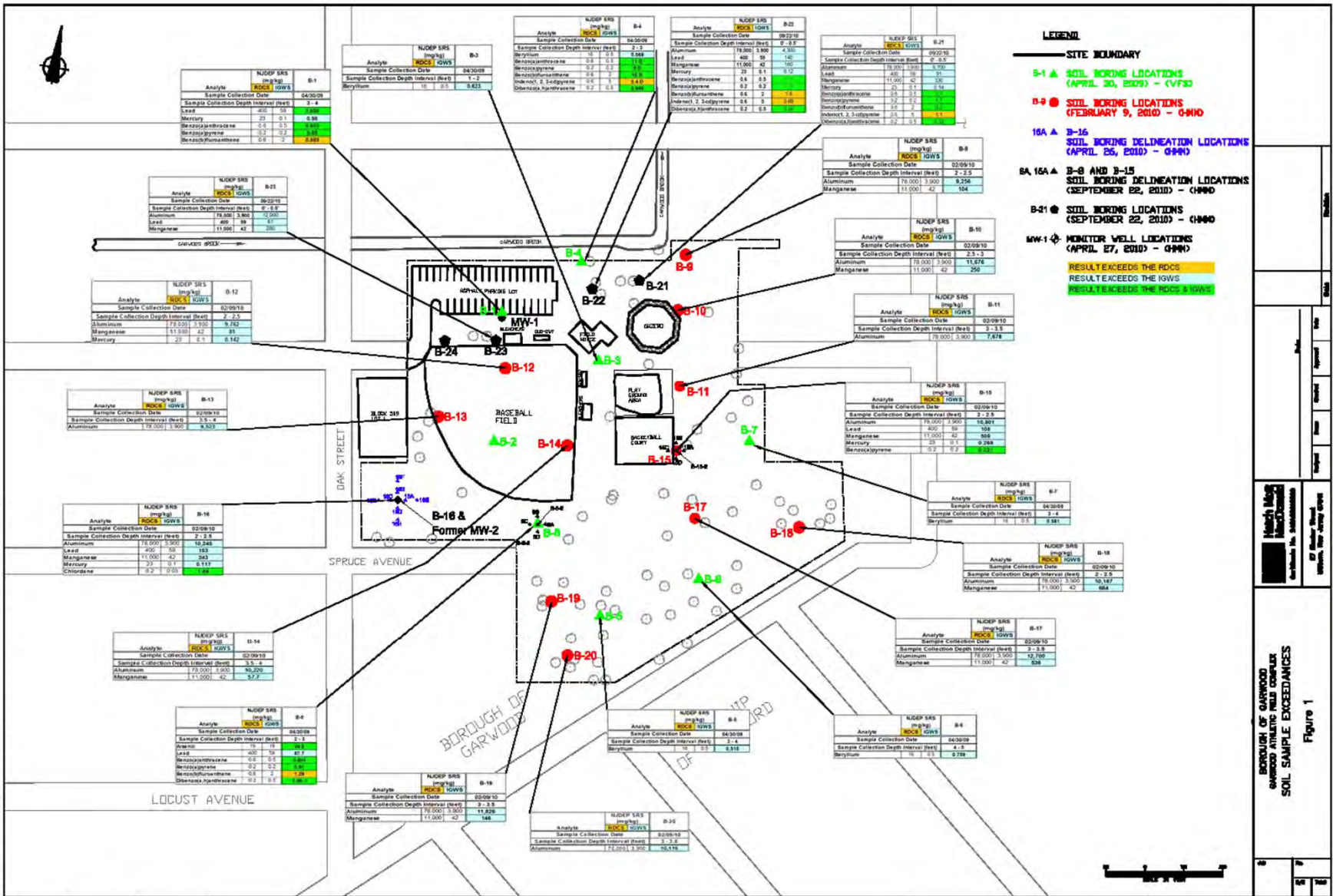
Needed to delineate extent of chlordane

Chlordane localized – Excavated Soil

Needed to assess impacts to groundwater

Two monitoring wells installed and sampled

No groundwater impacts found



BOROUGH OF GARWOOD
GARWOOD ATHLETIC FIELD COMPLEX
SOIL SAMPLE EXCEEDANCES
Figure 1

Site Remediation Process

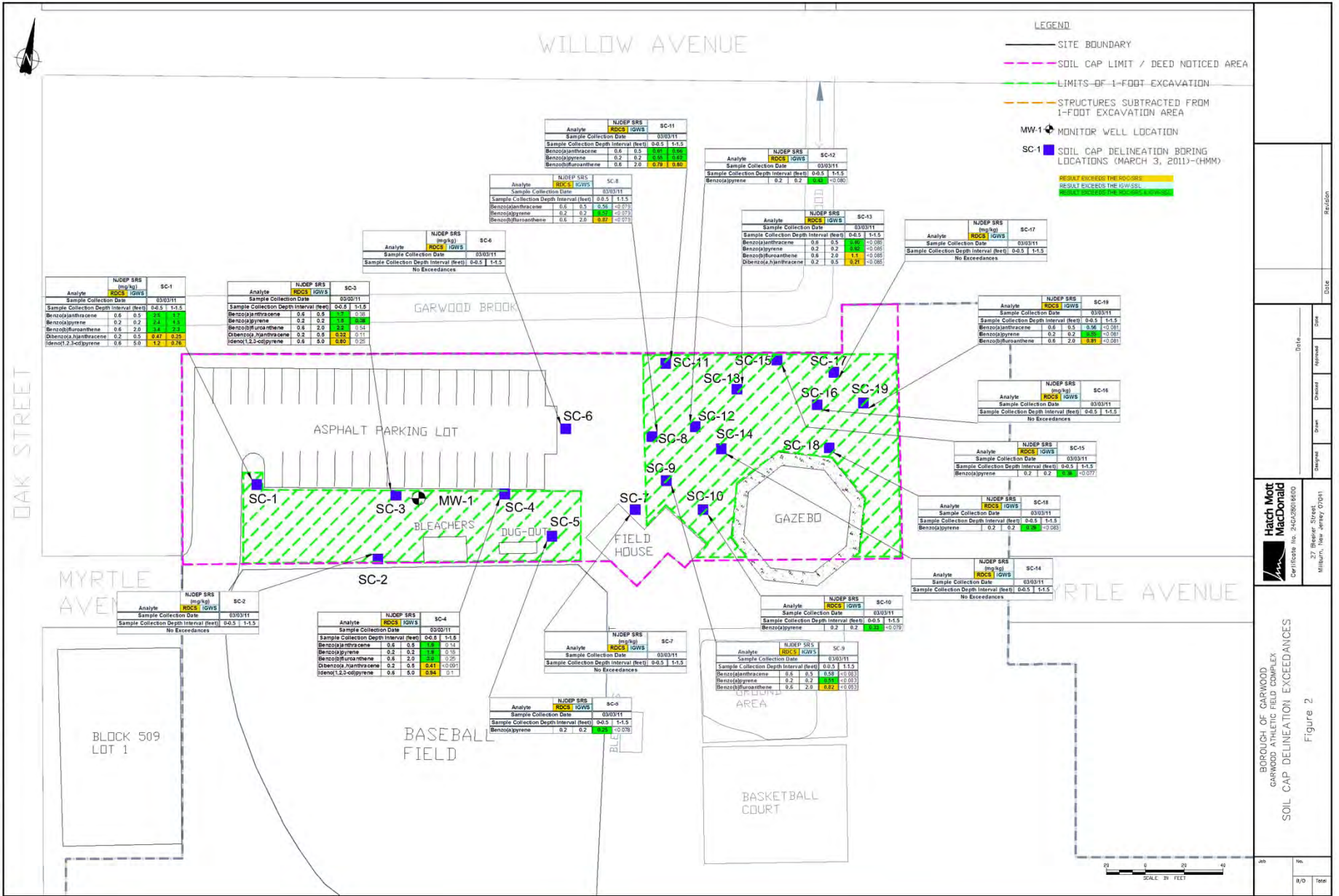
- Original plan was to Deed Notice the entire site and use 2 ft. of existing cover for cap.
- Plan needed to be modified due to the grading plan for soccer field
- Soil contamination found at 2 locations in southern portion of the site would need to be delineated & excavated during construction.
- Deed notice and cap would be limited to the northern portion of the site.



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Site Remediation Process

- Technical consultation with NJDEP
- Natural cap in the north would need to be investigated.
- Contamination found at surface
- Investigation of cap undertaken
- Construction of the park improvements will include replacement of top of soil (1 foot)



BOROUGH OF GARWOOD
GARWOOD ATHLETIC FIELD COMPLEX
SOIL CAP DELINEATION EXCEEDANCES
Figure 2

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Certification No. 24422680/0600
27 Beaver Street
Millis, MA 01931

Date	
Scale	
Drawn	
Checked	
Design	
Project	

Revision	
Date	

No.	
B/O	Total



Site Remediation Reform in New Jersey *What's Different?*



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Remedial Actions

➤ *Before*

Remedies proposed by environmental consultant subject to NJDEP approval

➤ *After*

➤ LSRPs can make decisions without approval from NJDEP but....

➤ Presumptive Remedies for:

- Residential Single Family Homes
- Residential Apartment Buildings
- Schools
- Child Care Facilities

Case Closure

➤ *Before*

No Further Action (NFA) letter issued by NJDEP
Environmental consultant would propose NFA. NJDEP
would either grant or deny NFA.

Re-openers possible due to 10X changes in
remediation standard or undiscovered contamination.

➤ *After*

Response Action Outcome (RAO) is issued by LSRP
RAO may be audited and rescinded by NJDEP within a
three year period.

Reopeners as above

Variations

➤ *Before*

Variations allowed with NJDEP Case Manager's approval.

Regulations very prescriptive in terms of investigation and reporting.

➤ *After*

LSRPs can use best professional judgment to use variations as long as they are justified with data and are protective of public health and environment.

Observations and Forecast

- The Department is committed to a successful, efficient and effective site remediation program.
- DEP is in a user-friendly compliance mode and is encouraging responsible parties to “opt-in” now, BUT.... LSRPs must be retained by May/2012
- Sites will be remediated by LSRP’s in a cost- effective manner and within reasonable timeframes.
- LSRPs may become more conservative in their approach to site remediation.
- The program will be improved over the next several years by incorporating risk-based remediation standards considering the type of contamination, land use and receptors (*opinion*).



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Speakers

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