Unkamet Brook Removal Action Area – Status Report

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Citizens Coordinating Council

December 10, 2008 Meeting

Unkamet Brook Removal Action Area

GE-Owned Industrial Property

Non-GE Owned Commercial/Industrial Property

Non-GE Owned Non-Industrial/Recreational Property

GE-Owned Former Interior Landfill

GE-Owned Non-Industrial Property

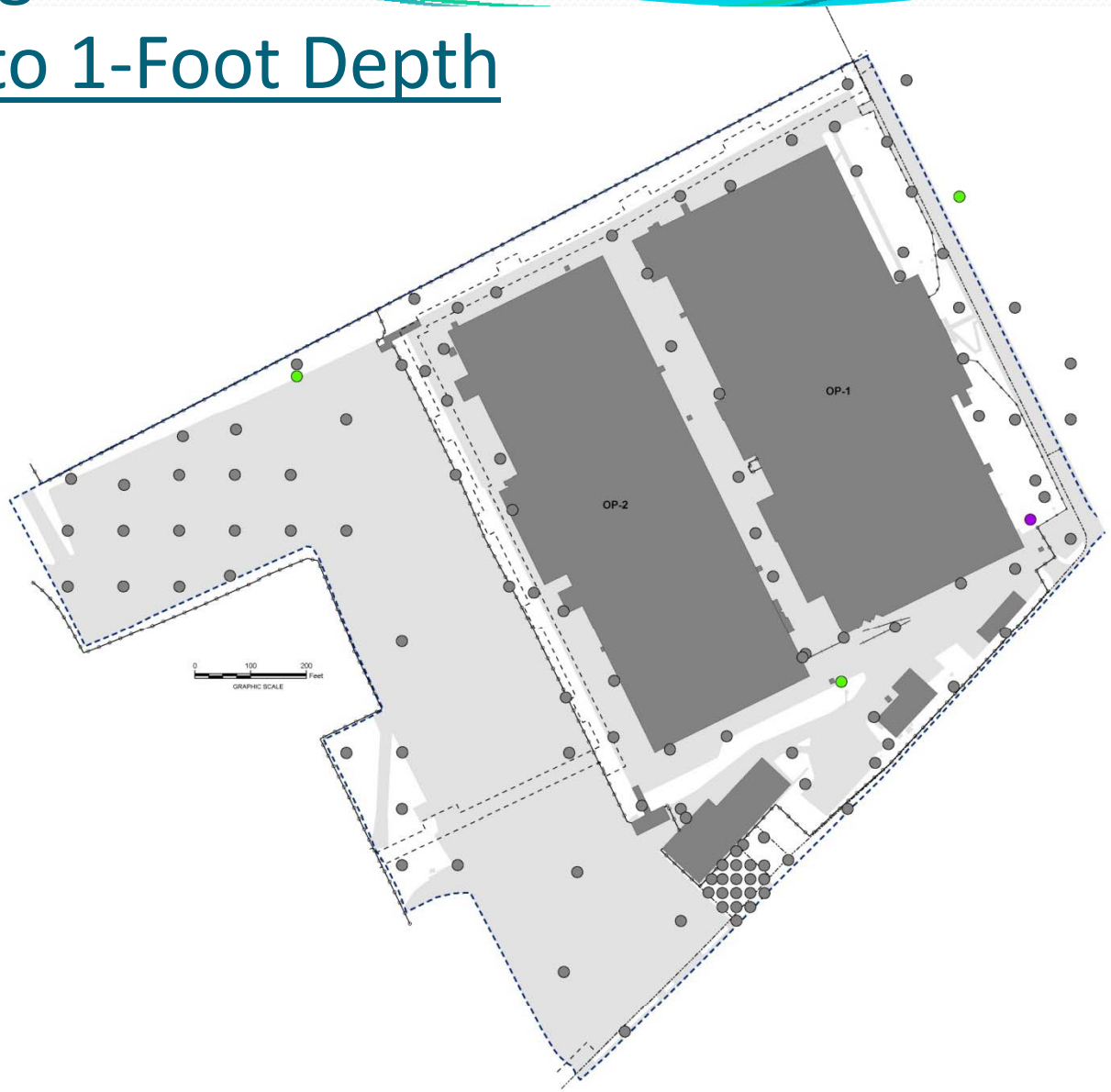
Consent Decree Requirements - Soil

- Average and not-to-exceed concentrations for PCBs
- Numerical and risk-based evaluations for non-PCB constituents
- Primary considerations:
  - Property type (industrial vs. recreational)
  - Surface cover (paved vs. unpaved)
  - Soil Depth (e.g., 0-1 ft., 1-6 ft., 0-15 ft.)
  - Utilities subject to emergency repair
- Remediation, if needed: soil removal, soil cover, engineered barrier

Soil Investigations to Date

- Approximately 2,700 soil samples collected from 2,100 locations
- PCB Analyses
  - Approximately 1,300 surface soil samples 0- to 1-foot depth
  - Approximately 1,400 subsurface soil samples > 1-foot depth
- Non-PCB Analyses
  - Approximately 400 samples 0- to 1-foot depth
  - Approximately 450 samples > 1-foot depth

PCB Soil Investigations
West Area: 0- to 1-Foot Depth

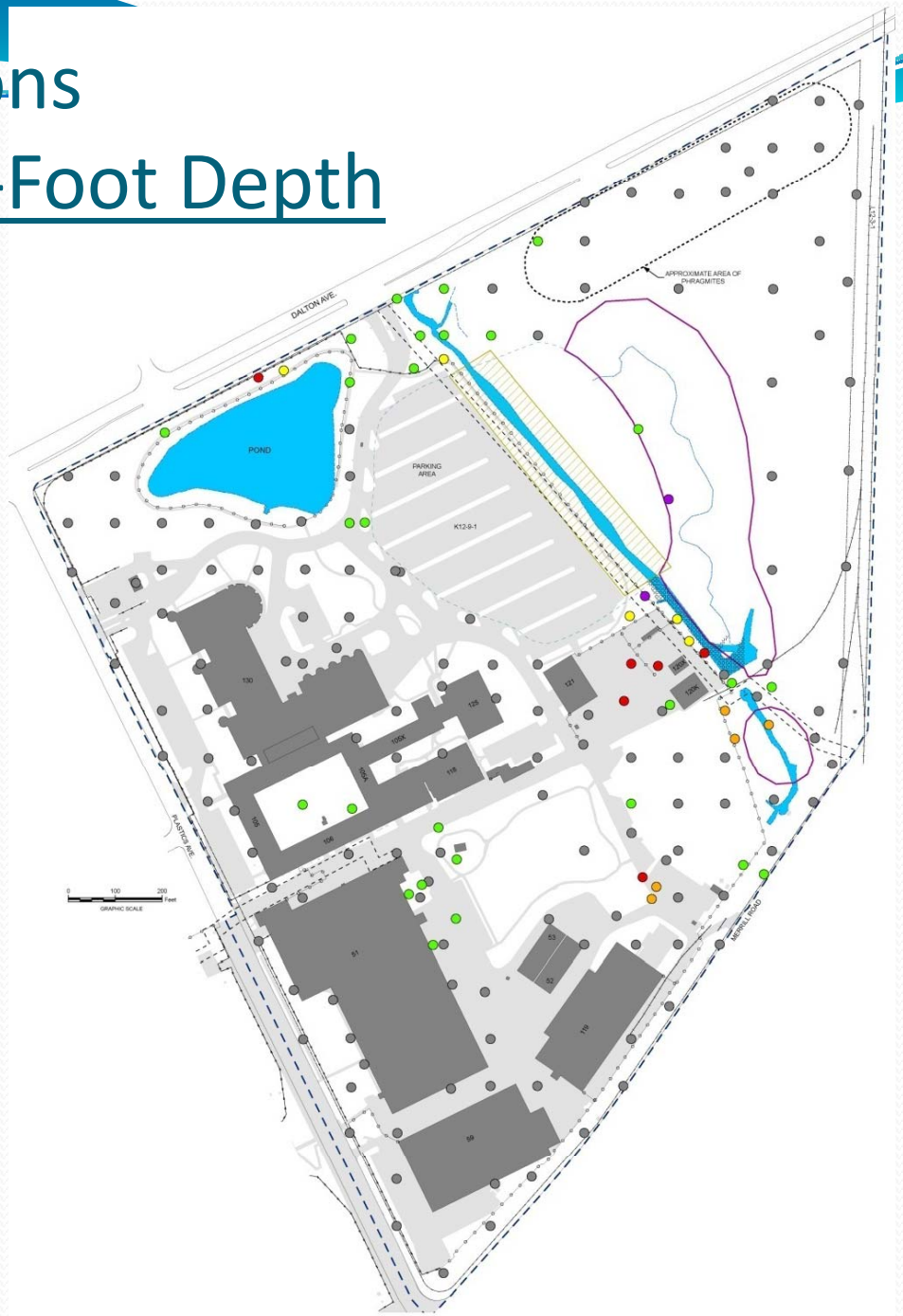


- PCB CONCENTRATION 10 - 25 ppm
- PCB CONCENTRATION 1 -10 ppm
- PCB CONCENTRATION < 1 ppm

PCB Soil Investigations
North Area: 0- to 1-Foot Depth

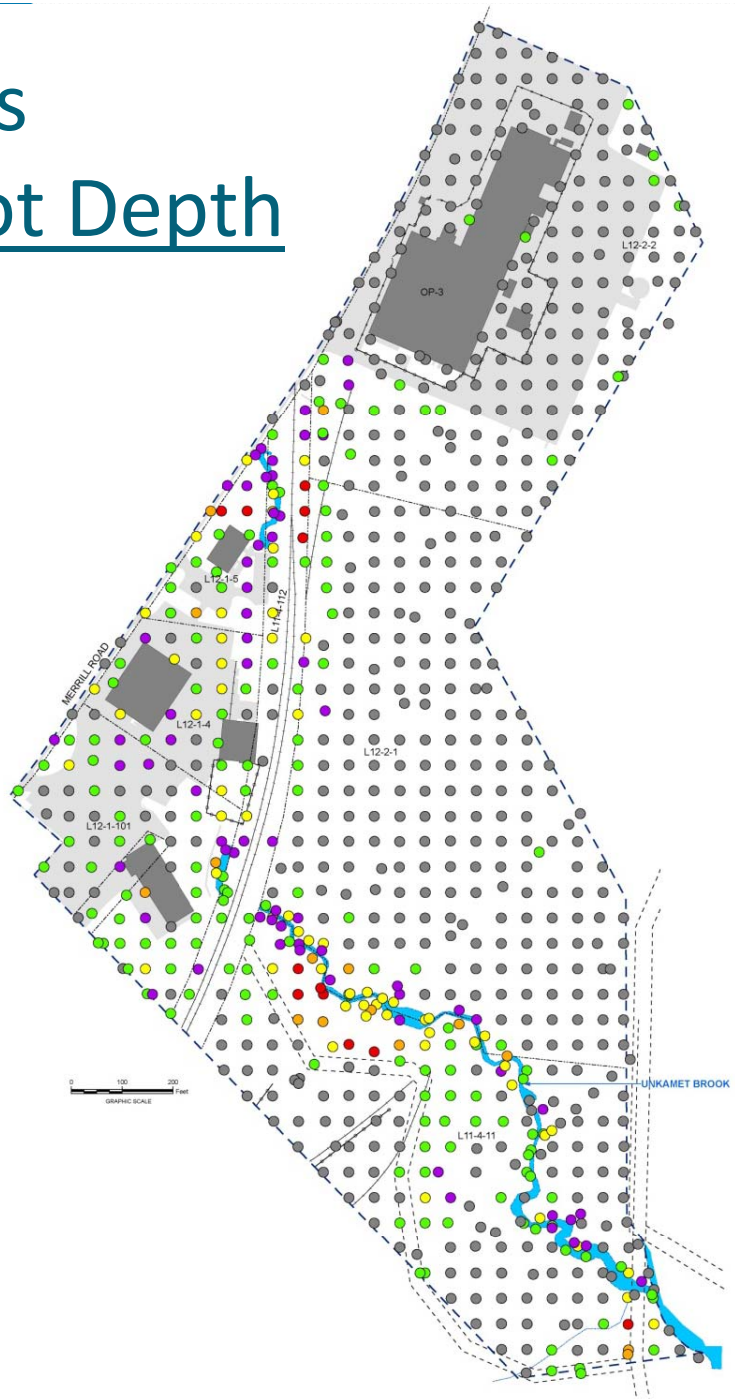
- PCB CONCENTRATION > 200 ppm
- PCB CONCENTRATION 100 - 200 ppm
- PCB CONCENTRATION 25 - 100 ppm
- PCB CONCENTRATION 10 - 25 ppm
- PCB CONCENTRATION 1 -10 ppm
- PCB CONCENTRATION < 1 ppm

PCB Soil Investigations
North Area: 1- to 3-Foot Depth



- PCB CONCENTRATION > 200 ppm
- PCB CONCENTRATION 100 - 200 ppm
- PCB CONCENTRATION 25 - 100 ppm
- PCB CONCENTRATION 10 - 25 ppm
- PCB CONCENTRATION 1 -10 ppm
- PCB CONCENTRATION < 1 ppm

PCB Soil Investigations
East Area: 0- to 1-Foot Depth



- PCB CONCENTRATION > 200 ppm
- PCB CONCENTRATION 100 - 200 ppm
- PCB CONCENTRATION 25 - 100 ppm
- PCB CONCENTRATION 10 - 25 ppm
- PCB CONCENTRATION 1 -10 ppm
- PCB CONCENTRATION < 1 ppm

Next Steps

- Complete remaining pre-design investigations (southern portion of RAA)
- Conceptual Removal Design/Removal Action (RD/RA) Work Plan:
  - Technical evaluations (each area/depth within RAA)
  - Current PCB and non-PCB conditions in soil
  - Current conditions vs. CD Performance Standards
  - Identification of Remedial Actions
  - Existing utility corridor evaluations
- Separate RD/RA document submittals to EPA:
  - "Developed" portions of RAA – by January 9, 2009
  - "Remaining" portions of RAA – by March 27, 2009

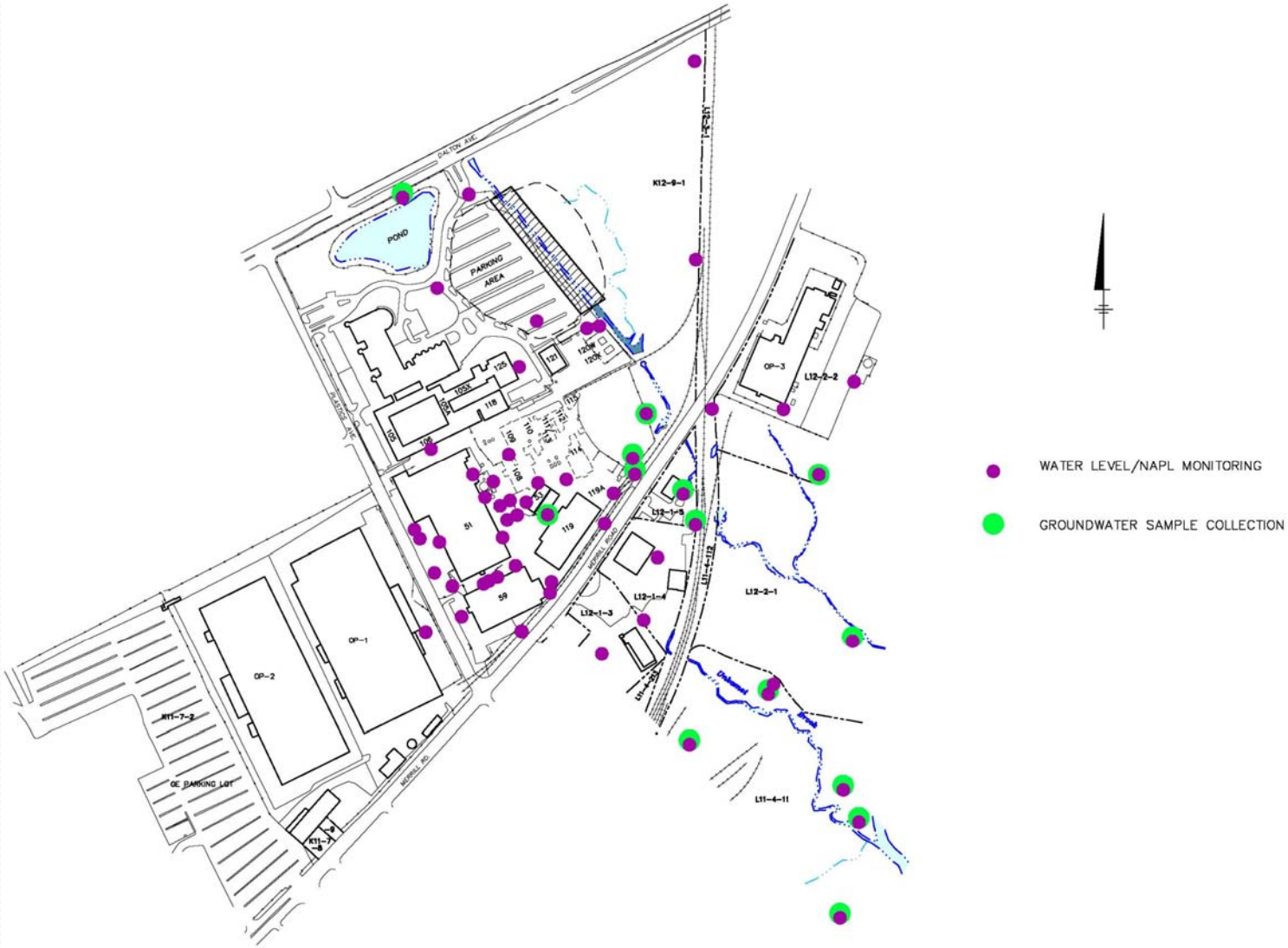
Consent Decree Requirements – Groundwater

- Groundwater
  - Achieve MCP GW-2 and GW-3 Standards at designated "compliance" wells
- Non-Aqueous Phase Liquids (NAPL)
  - Containment to prevent discharge to surface water or sediments
  - Elimination of "uncontained" NAPL near surface water
  - Reduction of NAPL in non-discharge areas
  - Assessment/remediation of NAPL in vicinity of structures

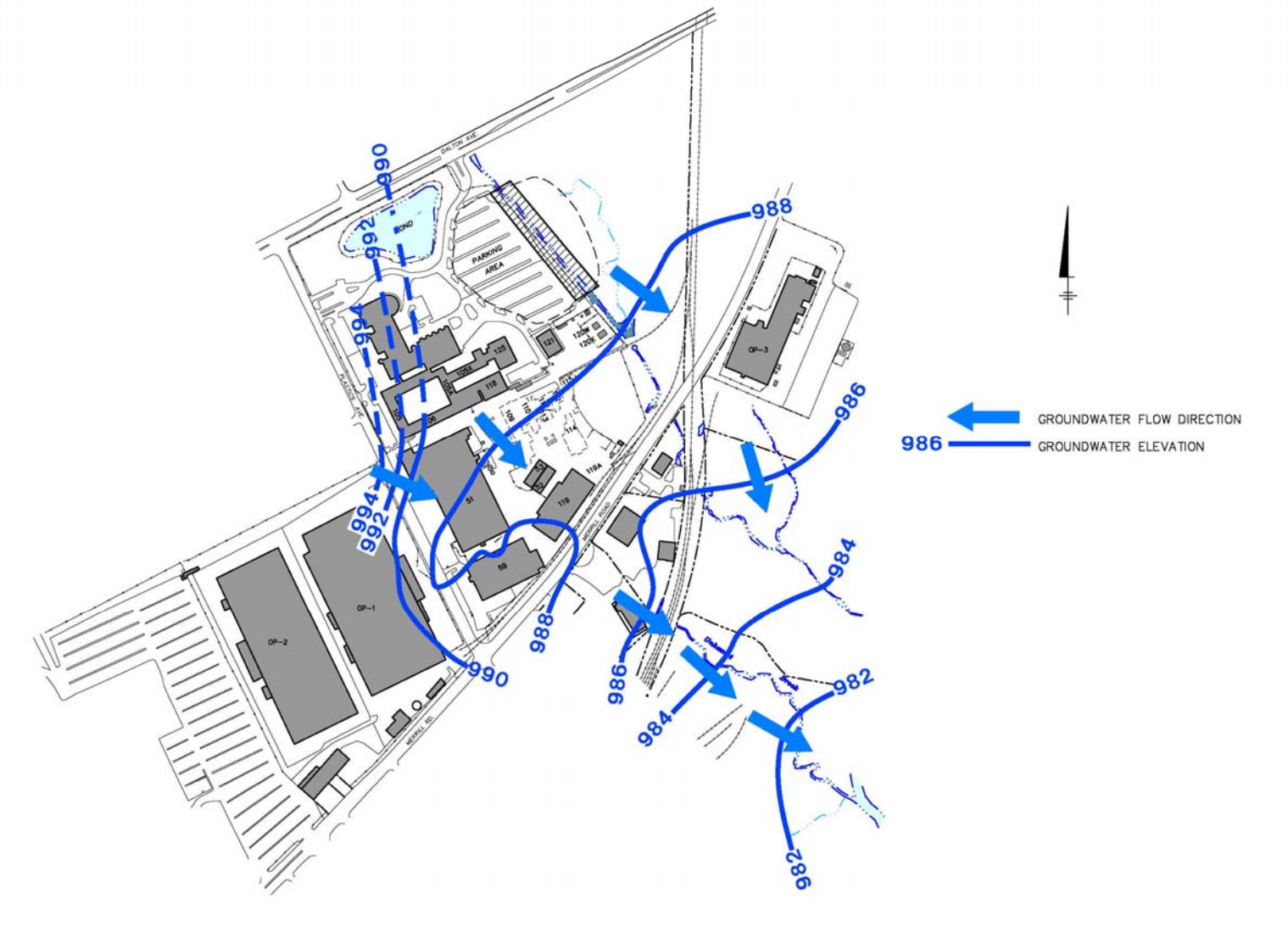
Groundwater Timeline

Activity		Timeframe
Baseline Monitoring Program (~2 Years)	–	Completed in Fall 2005
"Interim" Monitoring Program	–	Ongoing
NAPL Monitoring/Recovery	–	Ongoing
Long-Term Monitoring Program	–	Following completion of soil remediation

Monitoring Well Network ("Interim")



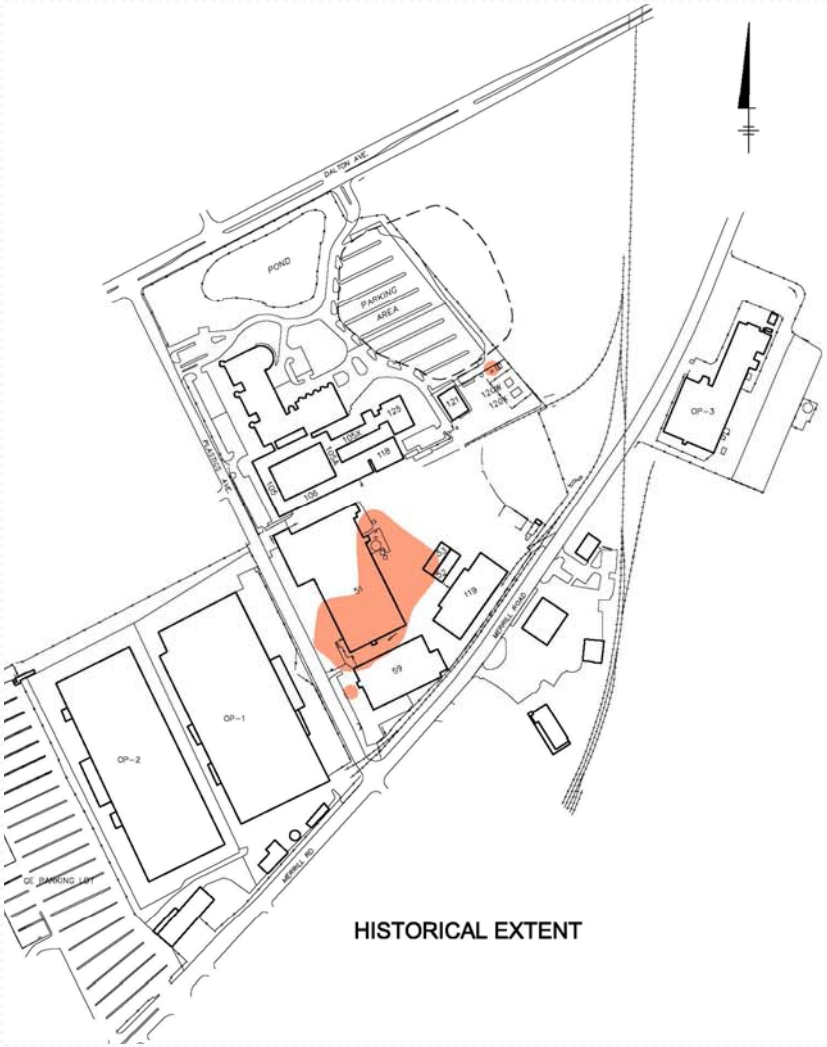
Groundwater Flow Direction



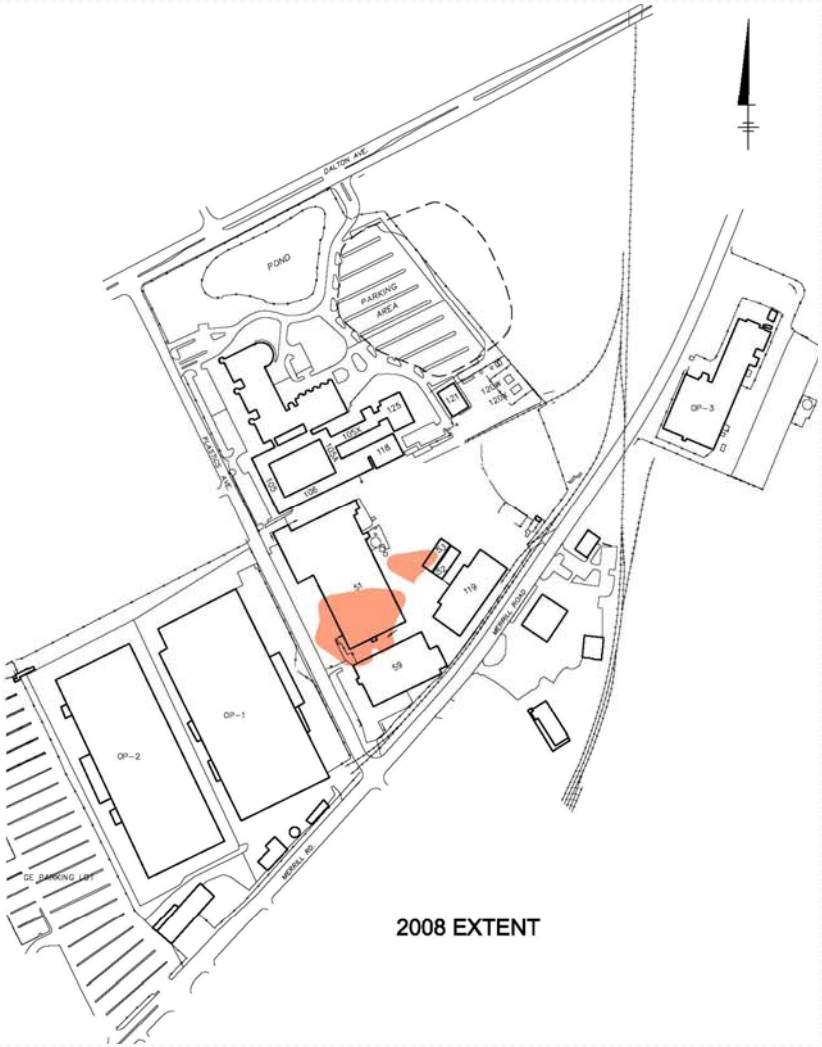
NAPL Recovery Program

- 2 active oil skimmer systems (continuous operation)
- 4 wells in or adjacent to NAPL monitored weekly
- 26 wells in or adjacent to NAPL monitored monthly
- Approximately 1,500 gallons NAPL removed since June 2000
- Approximately 30 gallons NAPL removed in 2008

Extent of NAPL

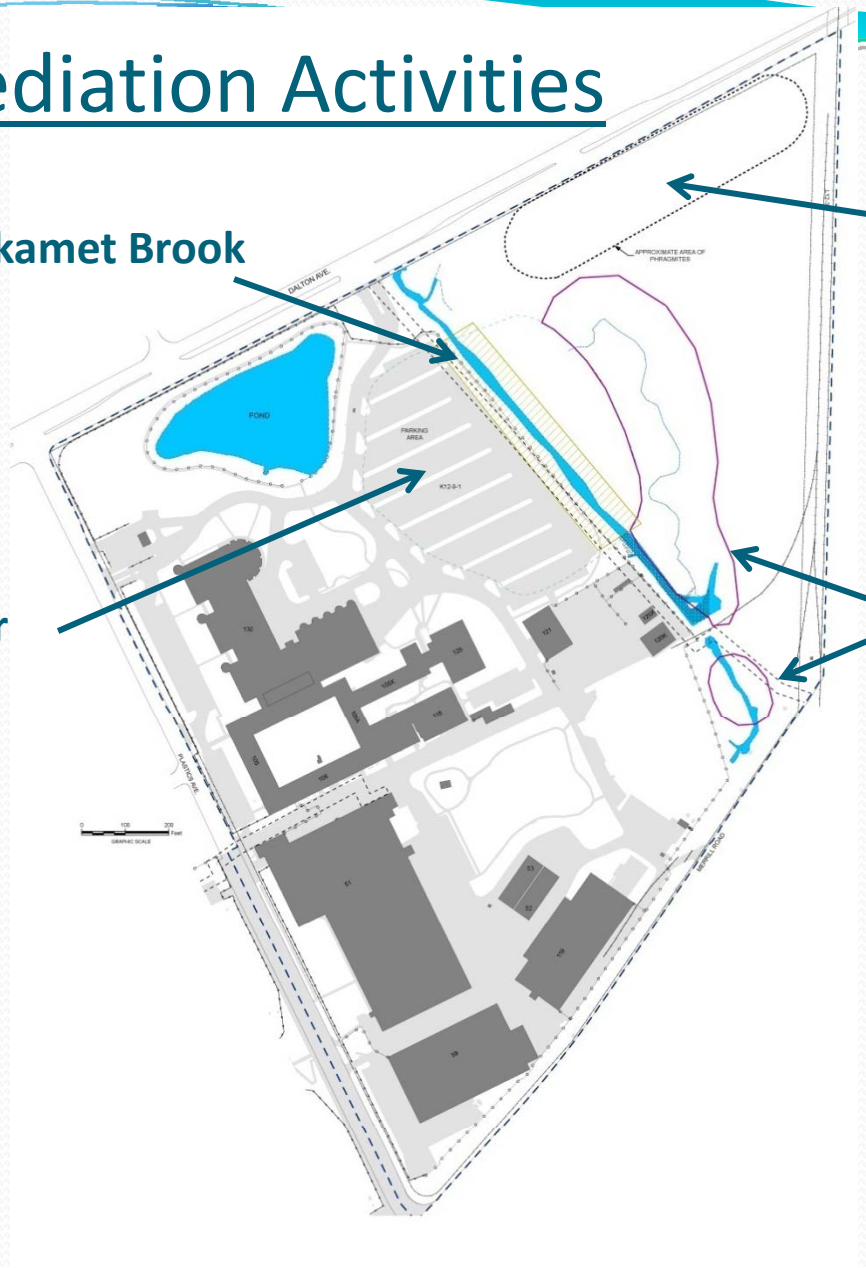


HISTORICAL EXTENT



2008 EXTENT

Other Remediation Activities

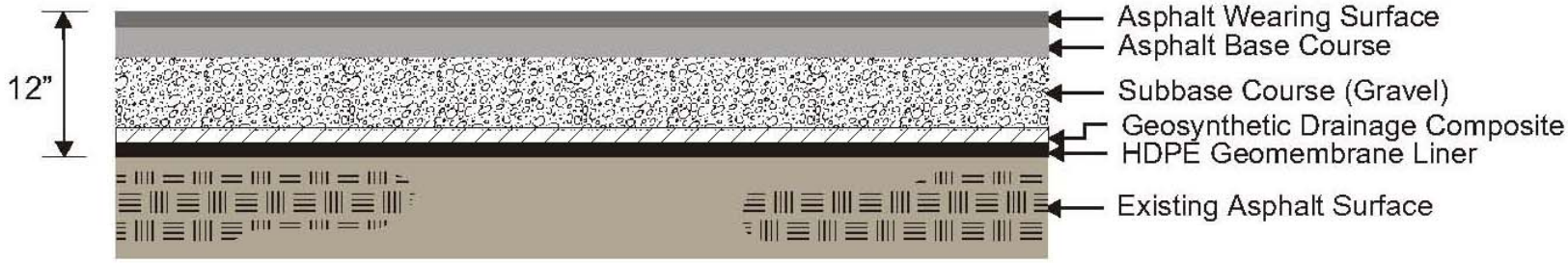


Former Interior Landfill - Overview

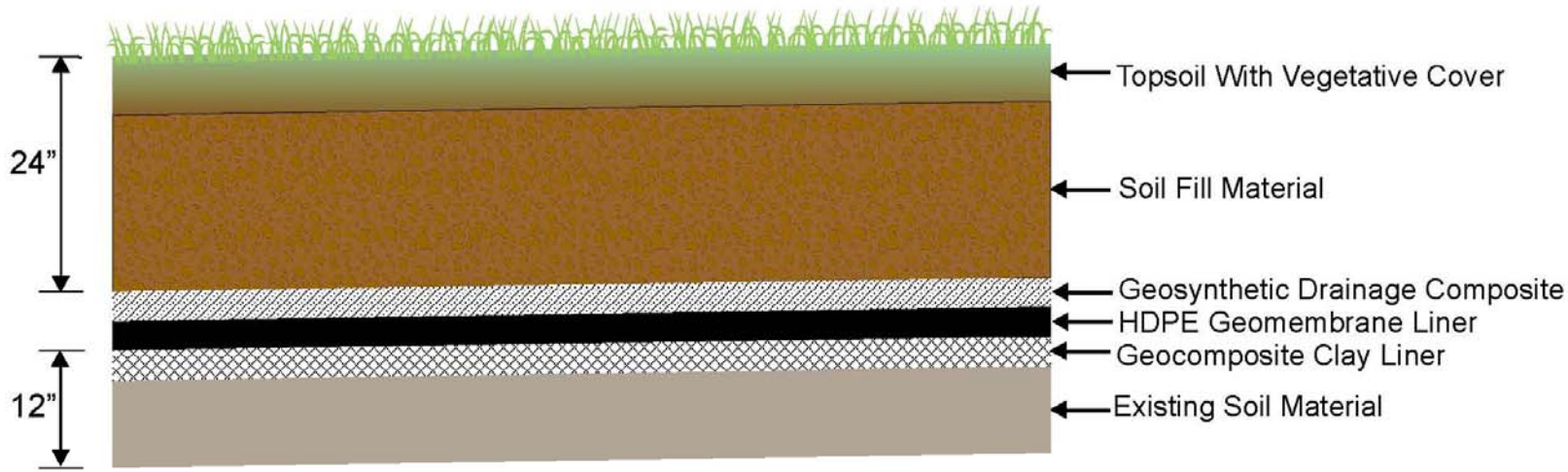
- From EPA/RCRA Facility Assessment (February 1988):
  - Active from the 1920s through early 1970s
  - Previously used for the disposal of plant wastes and demolition debris
  - By 1985, area was partially covered by a parking lot

- CD establishes "Engineered Barrier" as remedial action

Engineered Barrier Components



Current Paved Areas



Current Unpaved Areas

Future Monitoring and Maintenance Program

- Periodic EPA and GE Inspections
- Visual inspection of vegetated areas for erosion, settlement, damage to barrrier, and overall integrity
- Visual inspection of asphalt areas for excessive cracking, fissures, spalling, potholes, damage to barrier, and overall integrity
- Address deficiencies following inspections
- Results of inspection and maintenance activities submitted to EPA

Anticipated Timeline for Future Activities

- 2009-2010 Timeframe
  - Conceptual RD/RA Evaluations
  - Final RD/RA documentation
  - Long-term Groundwater Monitoring Proposal
  - EPA approvals of RD/RA and groundwater plans
- 2010-2012 Timeframe
  - Site remediation
  - Long-term Groundwater Monitoring

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