

# SUBSURFACE INVESTIGATION, SITE CHARACTERIZATION & REMEDIATION



REAL ESTATE DUE DILIGENCE HEALTH AND SAFETY ENVIRONMENTAL COMPLIANCE ENERGY EFFICIENCY



Acquisition, Redevelopment & Cleanup Oversight

## SERVICES

- Drilling/Direct-Push Probing
- Soil, Soil Vapor & Groundwater Characterization
- Contaminant Delineation/Modeling
- Vapor Intrusion Assessment/Mitigation
- Risk-Based Assessment and Corrective Action
- Regulatory Compliance Reporting
- UST Removal/Assessment/Closure Services

## Service Overview

A subsurface investigation to further evaluate the presence of detrimental impact to subsurface soil, soil vapor, and/or groundwater is often warranted at sites where potential environmental concerns are identified. Nova's subsurface investigations are carefully developed to thoroughly assess locations of potential concern and identify any resulting risk to human health or the environment; and, are implemented in accordance with applicable local regulatory requirements. At various types of sites, Nova designs and implements Remedial Investigations (RI) and Corrective Action Design (CAD) programs, and routinely develops detailed feasibility studies to establish practical mitigation solutions that can be cost-effectively implemented.

## Experience

Nova's technical staff includes Professional Geologists (PG) and Professional Engineers (PE) with extensive experience in performing real estate due diligence, site investigations, and corrective action/remediation. Nova's staff has experience in the design and implementation of a wide range of investigative methods and mitigation/remediation technologies, including: natural attenuation, soil excavation, land spreading, thermal treatment, landfill disposal, groundwater pump and treatment, soil-vapor extraction, sub-slab depressurization, air sparging, and chemical and bio-remediation.



### MARK PERRY

#### Corporate Vice President, Environmental Assessment & Remediation Group Leader

Mr. Perry has more than 25 years of experience conducting and managing environmental investigations, brownfield redevelopment/remediation, and property site assessments, including: Phase I Environmental Site Assessments (ESA), Property Condition Assessments (PCA), Property Zoning Reports (PZR) and Hazardous Materials Surveys. Mr. Perry also has experience with the coordination and oversight of Geotechnical Evaluations and aspects of Construction Loan Monitoring projects, including upfront

construction document reviews, monthly site inspections, and pay application/draw reviews.

Phone: 612-275-1997 | E-mail: [Mark.Perry@novagroupgbc.com](mailto:Mark.Perry@novagroupgbc.com)

## CASE STUDY

### Summary

In response to identified contamination and dump debris discovered during a road right-of-way project, Nova directed the characterization, excavation, and permitted off-site disposal of approximately 100 cubic yards of mercury-contaminated material as part of an interim Response Action Plan (RAP) during initial construction activities. Subsequent investigation, including organic vapor screening and soil laboratory analyses, facilitated the preparation and submittal of a comprehensive RAP to the Brownfields Voluntary Cleanup Program. The RAP included additional segregation of mercury-impacted soil with a Lumex® Mercury Vapor Analyzer.

### Highlights

The comprehensive right-of-way cleanup included the segregation, excavation, and disposal of approximately 3,200 tons of dump debris and contaminated soil along the right-of-way embankment. Following the excavation and off-site disposition of the impacted materials, Nova characterized the extent of excavation by collecting a gridded array of confirmation soil samples for applicable laboratory analyses and associated sampling to assess any resulting impact to the adjoining lake bottom sediment. The response actions and risk assessment activities were documented in a subsequent implementation report that was submitted on behalf of the client and was approved by the Brownfields Voluntary Cleanup Program.

