



Siena Cove Development

Former Golf Course

Relevant Services

Planning, Permitting and Compliance
Contamination Assessment and Remediation
ISM and Discrete Soil Sampling
Groundwater Sampling
Aquifer Testing
Risk Management

Challenges

Modification to development goals during assessment and remediation
Site lithology and characteristics
Contaminant Distribution

OVERVIEW

NovelEolutions (NovelE) provides key engineering and field support on the environmental assessment and remediation activities at this 175-acre former golf and country club set to be redeveloped as a gated community of ± 380 single-family residences. Assessment activities are ongoing at the site and include the use of the incremental sampling methodology (ISM). Mr. Aumann provides field support including well installation, soil and groundwater sampling, and aquifer testing. Ms. Grudin is the Engineer-of-record for the remediation activities with an ultimate goal to achieve the necessary approvals from the FDEP resulting in a No Further Action (NFA) status for the property. The regulatory strategy contemplated for this site at the current time will be to seek an alternative closure in accordance with Chapter 62-780, Florida Administrative Code (FAC) using engineering and institutional controls to maintain the aggressive timeline established for this significant redevelopment project by the client. Soil management options include soil blending, capping under roadways, parks/recreational areas, and

utilization of clean fill in conjunction with the existing grading plan. Groundwater remediation options include utilization of planned drainage structures, soil amendments and natural attenuation monitoring.

Ms. Grudin completed statistical analysis in coordination with the University of Florida to complete the ISM sampling and assessment approach. In the first of its kind analysis, Ms. Grudin extrapolated the Coefficient of Variation for replicate ISM sampling to single ($r=1$) and duplicate ($r=2$) results. This is a new approach based on FDEP statistical analysis of ISM data resulting in a more accurate determination of onsite impacts. A UCL was then calculated from the resulting extrapolation and compared to the SCTLs for arsenic and dieldrin.

