



**GEORGIA**  
DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION

# Pushing the Boundaries of Site Cleanup

## An EPD Perspective

**Jason Metzger**  
Program Manager, RRP / LPB / EPD

**Georgia Environmental Conference**  
August 26, 2016



# VOLUNTARY REMEDIATION PROGRAM ACT

- Became law June 1, 2009
- Began accepting applications January 1, 2010
- Fundamental shift in concept of cleanup
- 109 Applications to Date
- 12-8-107(g)(2) - GW corrective action not required if no receptors
- Bright Line vs. Area Averaging
- Ask the experts at EPA?



# HURDLES

- Lies, Damn Lies, and Statistics
- Exposure Domain
- Variogram analysis
- Samples utilized
- Acute exposure / not-to-exceed criteria
- Hot spots
- Leaching



# COLLABORATION

- Bring on the Expert
- Training Seminars
- Use of default non-residential standard
- Additional pre and post-excavation sampling to address question marks



# DATA PRESENTATION

- Raw sample data with locations
- Variogram and associated data
- Kriging Estimation output
- Kriging Variance output
- VSP standard formatted report
- Figure of kriged blocks with data point overlay (color-coded)
- Sensitivity analysis



# GENERAL TAKEAWAYS

- Valid CSM and Exposure Domain
- Is it worth the effort?
  - Small exceedance areas
  - residential scenarios
  - Subsurface impacts
- Is site characterized /data set representative of ED
- Covenant required to enforce ED and other assumptions
- Still need to evaluate potential leaching
- Early and regular communication
- Guidance on EPD website by EOY



# CONTACT INFORMATION

Jason Metzger

Response and Remediation Program

404-657-8606

[jmetzger@gaepd.org](mailto:jmetzger@gaepd.org)

<http://epd.georgia.gov/voluntary-remediation>