"Taking the Fear (and Roadblocks) Out of Redevelopment in Florida: Using the New RBCA Tools to Your Advantage"

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Speaking Panel:

- George F. Gramling, III – Environmental Attorney
- J. Chris Herin – P.G., Environmental Consultant

George F. Gramling, III

George F. Gramling, III received his B.A. from Emory University in 1980 and his J.D. in 1983 from the University of Florida. Mr. Gramling is the President, owner and managing partner in the law firm of Gramling Environmental Law, P.A., located in Tampa. He is rated "AV preeminent" by the Martindale-Hubbell law directory, “superb” by AVVO, and he was recognized as 2016 *Best Lawyers* Lawyer of the Year in Environmental Law and 2016 Top Lawyer in Environmental Law by *Tampa Bay Magazine*.

Mr. Gramling practices exclusively in the field of environmental and land use regulation at federal, state and local government levels. His practice spans 32 years and involves compliance and pollution issues, complex regulatory dispute resolution, electric utility regulation, Superfund proceedings, corporate due diligence, legislative and lobbying representation, environmental agency negotiations, and selective litigation in federal and state courts and before administrative agencies.

From 1988 to 1992, Mr. Gramling served as in-house counsel to a public, electric utility holding company. Mr. Gramling represents clients in the private and public sector. He has served as Chairman of the Florida Bar Environmental and Land Use Law Section and Chairman of the Hillsborough County Bar Environmental and Land Use Law Section. Mr. Gramling has published many articles addressing environmental liability and corporate environmental risk management, including an article in the *Harvard Environmental Law Review*.

J. Chris Herin, P.G.

J. CHRIS HERIN, P.G. is a past chair of the ELULS Affiliate Members. He is a Senior Principal Hydrogeologist with Geosyntec Consultants, Inc. (Geosyntec) an environmental firm with over 70 offices in the U.S., including Florida offices in Boca Raton (headquarters), Clearwater, Gainesville, Jacksonville, Tampa, Titusville, Pensacola, Tallahassee, and Winter Springs.

Mr. Herin has resided and practiced as an environmental consultant in Florida since 1986. While his project work is commonly in Florida, Mr. Herin also works on projects in other parts of the United States and in other countries. His project work most commonly focuses on: environmental litigation assistance; assessment/remediation of contaminated soil/groundwater (including metals, pesticides, PCBs, petroleum compounds, and solvent compounds); vapor intrusion mitigation; valuation of environmental liabilities; regulatory compliance; permitting; due diligence; redevelopment of impaired property; solid and liquid waste management; and evaluation/management of surface and groundwater resources. In court, he has testified on topics such as hydrogeology, groundwater modeling, fate and transport of groundwater contamination, development of remediation options for contaminated sites, developing cost estimates for remediation of contaminated sites, solid waste management, waste water treatment facility operation, stormwater drainage wells, sediment dredge material management, and environmental due diligence.

Mr. Herin has worked on environmental issues with a broad range of clients that include: chemical, fertilizer, pesticide, automotive, aerospace and other manufacturing companies; agricultural operators; mining operators; national retailers; electric and water utilities; railroad, marine and air transportation; and businesses involved in petroleum distribution, cleaning operations, waste management (recycling, hazardous and non-hazardous waste), and property development/management. He has consulted on projects whose primary focus was on compliance with Comprehensive Environmental Response, Compensation, and Liability Act, Resource Conservation and Recovery Act, Toxic Substances Control Act, Clean Water Act, Clean Air Act, Federal Insecticide, Fungicide, and Rodenticide Act, National Environmental Policy Act and/or the Small Business Liability Relief and Brownfields Revitalization Act.

Agenda

Topic 1. Basics of RBCA site cleanup under Florida law.

Topic 2. Exemplary Florida statutory cleanup programs applying RBCA.

Topic 3. Cutting edge RBCA regulatory developments.

Topic 4. Closing remarks/ Q&A.

Make This Interactive

- You may email your questions during this presentation to the speaking panel at the following address:
  - george@gramlinglaw.com
  - cherin@geosyntec.com

We will try to address your questions in our closing remarks at the end of this presentation.

Risk-Based Corrective Action (RBCA)

- Signed into law by then-Governor Jeb Bush on June 20, 2003.
- RBCA extended the use of risk-based corrective action to all contaminated sites resulting from a discharge of pollutants or hazardous substances when legal responsibility for site rehabilitation exists pursuant to other provisions of Chapter 376, Florida Statutes and Chapter 403, Florida Statutes.
- RBCA utilizes site-specific data, modeling results, risk assessment studies, institutional controls (such as deed restrictions limiting future use to industrial), engineering controls (such as placing an impervious surface over contaminated soils to prevent human exposure), or any combination thereof.

"Global RBCA" (continued)

- Used to develop a unique remediation strategy for a contaminated site that considers the intended use of the property and aims to protect human health, safety, and the environment "under actual circumstances of exposure" as provided in Chapter 376.30701, Florida Statutes.
- RBCA may incorporate engineering controls, institutional controls, or even alternative cleanup target levels (CTLs) without controls to achieve a "No Further Action" determination from FDEP.
- Further, site-specific, naturally occurring or anthropogenic background may be used in the RBCA evaluation and recommendations.

RBCA Goal

- To provide for a flexible site-specific cleanup process that reflects the intended use of the property following cleanup, while maintaining adequate protection of human health, safety, and the environment through the evaluation of the toxicity of the contamination and exposure pathways by which human and environmental receptors may be exposed.
- RBCA results in significant cost savings during remediation, leading to quicker, more efficient cleanups, and more properties being remediated.

Topic 1: Basics of RBCA site cleanup and closure under Florida law

- The Florida Department of Environmental Protection (FDEP) (Division of Waste Management) regulates the cleanup and closure of contaminated sites.

- The FDEP regulates site cleanup and closure by applying administrative rules, namely Chapter 62-780, Florida Administrative Code (F.A.C) and Chapter 62-777, F.A.C.

The site rehabilitation process that leads to a NFA determination

- The site rehabilitation process as described in Chapter 62-780, F.A.C. generally requires the following steps:
  - Discovery of Contamination
  - Site Assessment
  - Remedial Action
  - Site Closure

Florida Cleanup Mandate

Chapter 376, Florida Statutes (F.S.)

Chapter 376.305, F.S. Removal of prohibited discharges.—

(1) Any person discharging a pollutant as prohibited by ss. 376.30-376.317 shall immediately undertake to contain, remove, and abate the discharge to the satisfaction of the department.

Chapter 376.301, F.S. Definitions.

(12) "Discharge" includes, but is not limited to, any spilling, leaking, seeping, pouring, misapplying, emitting, emptying, releasing, or dumping of any pollutant or hazardous substance which occurs and which affects lands and the surface and ground waters of the state not regulated by ss. 376.011-376.21.

(35) "Pollution" means the presence on the land or in the waters of the state of pollutants in quantities which are or may be potentially harmful or injurious to human health or welfare, animal or plant life, or property or which may unreasonably interfere with the enjoyment of life or property, including outdoor recreation.

Chapter 376.302, F.S. Prohibited acts; penalties.—

(1) It shall be a violation of this chapter and it shall be prohibited for any reason:

(a) To discharge pollutants or hazardous substances into or upon the surface or ground waters of the state or lands, which discharge violates any departmental "standard" as defined in s. 403.803(13).

Florida Cleanup Mandate (continued)

- Under Florida law, sites at which a "discharge" of a "pollutant" or "hazardous substance" (collectively "contamination") has occurred must undergo "site rehabilitation" until the site is eligible for a determination by FDEP of "No Further Action."

- This "No Further Action" determination is embodied in an order issued by the FDEP called a "Site Rehabilitation Completion Order" (SRCO) pursuant to Chapter 62-780.680(5), F.A.C.

- The quoted terms are defined in the statute and rule.

FDEP Closure Order/ No Further Action without Conditions

- FDEP SRCO's are "unconditional" when the site soil and groundwater comply with published "cleanup target levels" (CTL's), defined in Chapter 376.301, F.S. and Chapter 62-777, F.A.C.

- Risk Management Option Level I (RMO) as defined in Chapter 62-780.680(1), F.A.C.

FDEP Closure Order/ No Further Action with Conditions

- FDEP also issues “Conditional” SRCOs which rely on Institutional Controls (deed restrictions) and Engineering Controls to prevent human exposure to contamination concentrations that do not comply with the Cleanup Target Levels (CTLs).
- The “Conditions” imposed in an SRCO with conditions depend on a site specific risk assessment.
- RMOs II and III, as defined in Chapter 62-780.680, F.A.C.

Risk Management Options

- RMO Level I – No Further Action without Institutional Controls (IC) or Engineering Controls (EC).
  - Default Cleanup Target Levels (CTLs) are not exceeded
- RMO Level II - No Further Action with IC (and EC, if appropriate).
  - Can exceed RMO I CTLs within IC boundary
  - Affected groundwater area is less than ¼ acre and stable/shrinking
- RMO Level III - No Further Action with IC (and EC, if appropriate).
  - Can exceed RMO I CTLs within IC boundary
  - Affected groundwater area is greater than ¼ acre and stable/shrinking
  - "Risk-assessment" may be needed

Institutional and Engineering Controls

- Institutional Control – IC
  - Restriction on use of or access to a site
    - Deed restrictions
    - Conservation easements

- Engineering Control – EC
  - Existing features or modifications to a site
    - Physical or hydraulic control measures
    - Capping
    - Point-of-use treatments
    - Slurry walls

Institutional Controls Procedures Guidance (ICPG) Process

- The process for determining the appropriate institutional controls to support a SRCO with conditions is described in the FDEP's Institutional Controls Procedures Guidance (ICPG).
- Provides important information on the processes to be followed in developing appropriate institutional controls which, upon review and approval by FDEP, become the basis for conditional closure of a contaminated site.
- The FDEP issued a revised ICPG in September 2015.

Topic 2. Exemplary Florida statutory cleanup programs applying RBCA.

- Drycleaning Solvent Cleanup Program
- Petroleum Restoration Sites and Other Petroleum Eligible Sites for State-Funding
- Brownfields Redevelopment Program
- All Other Contaminated Sites

Drycleaning Solvent Cleanup Program

- State-funded program to cleanup properties that are contaminated as a result of a drycleaning facility or wholesale supply facility.
- Approximately 1,400 eligible sites.
- Program closed December 31, 1998 (no more state funding available).
- Provides limited liability protection to owner, operator and real property owner.
- Provides voluntary cleanup option for sites not eligible for state-funded cleanup.

Petroleum Restoration Sites and Other Petroleum Sites Eligible for State-Funding

Petroleum Sites Eligible for State-Funding

- Early Detection Incentive Program (EDI) [Chapter 376.3071(10), Florida Statutes] [closed]
- Abandoned Tank Restoration Program (ATRP) [Chapter 376.305(6), Florida Statutes] [re-opened]
- Petroleum Liability and Restoration Insurance Program (PLIRP) [Chapter 376.3072, Florida Statutes] [closed]
- Petroleum Cleanup Participation Program (PCPP) [Chapter 376.3071(13), Florida Statutes] [closed]

FLORIDA'S BROWNFIELDS REDEVELOPMENT PROGRAM

What are Brownfields?

- Any real property where the expansion, redevelopment or reuse is complicated by actual or perceived contamination.

- Redevelopment tool that results in:
  - Economic development
  - Community development
  - Residential projects, and
  - Open-Space/ Green-Space projects

    and
  - Reduction of public health and environmental hazards
  - Removal of stigma
  - Promoting effective use of community resources

Former Robbins Manufacturing Facility

Brownfields Defined

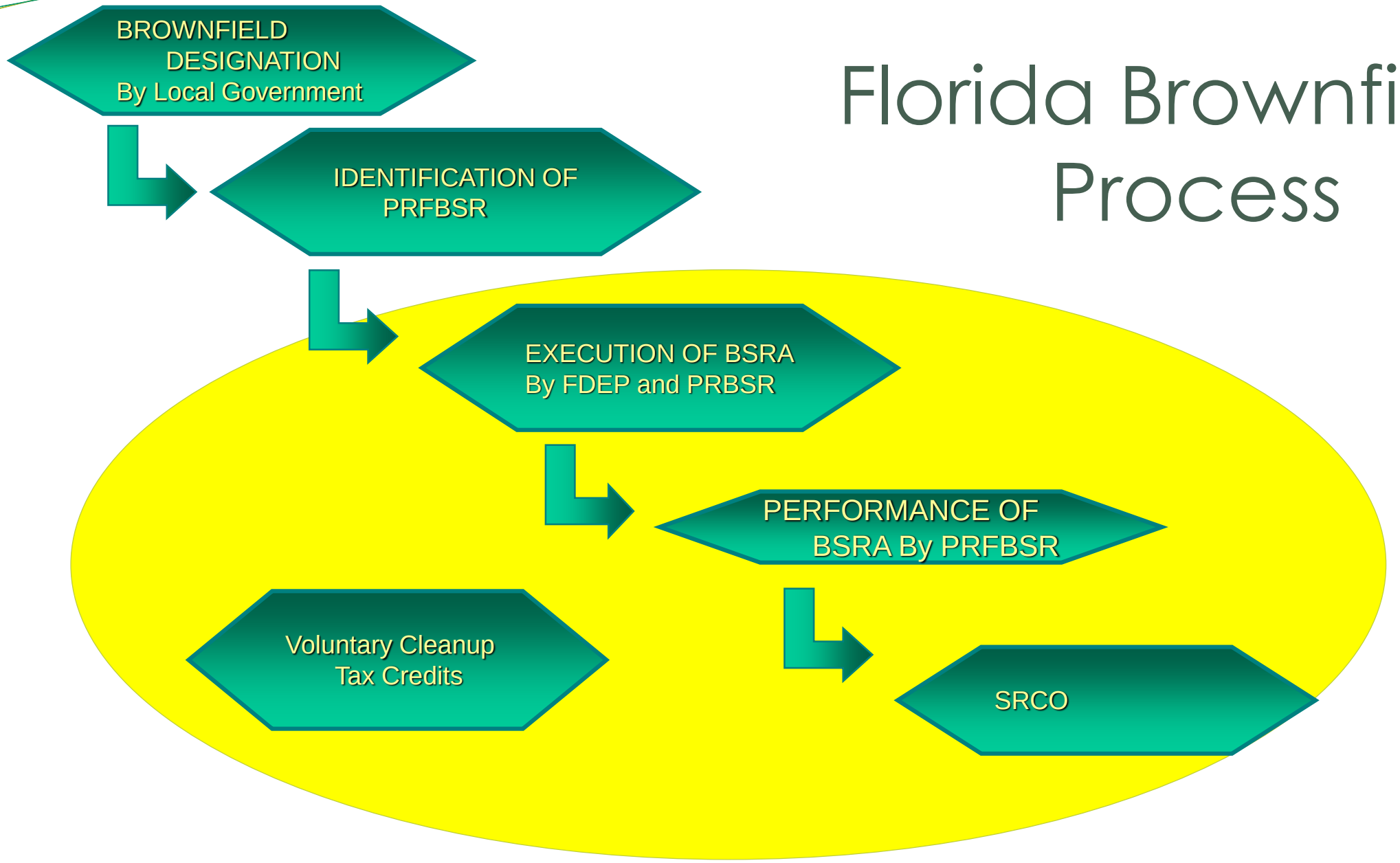
- **Brownfield sites** *means real property, the expansion, redevelopment or reuse of which may be complicated by actual or perceived environmental contamination [Chapter* 376.79(3), Florida Statutes].

- **Brownfield area** *means a contiguous area of one or more brownfield sites, some of which may not be contaminated, and which has been designated by a local government by resolution. Such areas may include all or portions of community redevelopment areas, enterprise zones, empowerment zones, other such designated economically deprive communities and areas, and Environmental Protection Agency-designated brownfield pilot projects [Chapter* 376.79(4), Florida Statutes].

WHY REDEVELOP BROWNFIELDS?

- Cleaning up and reinvesting in Brownfield properties facilitates job growth, utilizes existing infrastructure, increases local tax bases, removes development pressures on undeveloped open land as well as both improving and protecting the environment. Florida's Brownfields Redevelopment Program –
  - Creates jobs
  - Promotes voluntary cleanup
  - Prevents the premature development of greenspace (farmland, open space and natural areas)
  - Reduces public cost for installing infrastructure in greenspaces
  - Encourages the highest and best use of blighted properties
  - Minimizes or eliminates the need for environmental enforcement or state-funded cleanup
  - Encourages community revitalization Brownfield redevelopment is of great importance in Florida where balancing strong economic and community growth with suburban sprawl is an ongoing challenge.

Florida Brownfields Process



Brownfield Area Designation

Requested by Individual

- Local government shall designate if:
  - Owner/controller agrees to site rehabilitation
  - Five (5) new permanent jobs will be created
  - Redevelopment consistent with comp plan
  - Designation is properly noticed
  - Reasonable assurance of financial viability

BSRA Elements

- Agreement
  - Provides terms and responsibilities
  - Negotiable
- Attachments
  - A – Maps and legal descriptions of area and site
  - B – Brownfield Site Rehabilitation Schedule
  - C – Site Access Agreement
  - D – Certification of Redevelopment Agreement
  - E – Contractor Certification and Insurance
  - F – Quality Assurance Certificate
  - G – Advisory Committee Members
  - H – Format for submittal of Technical Documents

Brownfields Program Benefits

- Economic Incentives
  - Bonus Refund for Job Creation
  - Loan Guarantee Program
  - Sales/Use Tax Exemption on Building Materials
- Voluntary Cleanup Tax Credits
- PRFBSR Liability Protection
- State Agency or Local Government Liability Protection
- Not For Profit Organization Liability Protection
- Lender Liability Protection

BSRA Liability Protections

- Owners and Redevelopers (PRFBSRs)
  - Relief from further liability for site rehabilitation Chapter 376.82(2)(a), F.S.
  - Does not limit third party rights for damages Chapter 376.82(2)(b), F.S.
  - Available only if BSRA terms met
- Lenders
  - Serving in fiduciary capacity - loan
  - Did not
    - Cause/contribute to contamination
    - Control/manage site rehabilitation
  - Economic incentives do not apply during the lender's ownership
- Government, non-profit, charitable organizations

Voluntary Cleanup Tax Credit (VCTC) Program

Voluntary Cleanup Tax Credits (VCTC) Eligibility

Executed Cleanup Agreement –

- Voluntary Cleanup Agreement (VCA)
  - Drycleaning Solvent Cleanup Program (DSCP) sites
  - Drycleaning-solvent contaminated sites not eligible for the DSCP, with an eligible owner
- Brownfield Site Rehabilitation Agreement (BSRA)
  - Site Rehabilitation
  - Solid Waste Removal – Not operated as a permitted solid waste disposal area or for monetary compensation

VCTC (Continued)

- Chapter 376.30781, Florida Statutes — Credit against Florida corporate income tax.
- May be transferred/sold once.
- $5,000,000 maximum trust funds available annually on a first come, first served basis.
- 50% credit for cost of eligible work, not to exceed $500,000 per year, per site.
- Bonus credits awarded for site rehabilitation only.
  - SRCO (final year – 75% of eligible site rehabilitation costs)
  - Affordable housing
  - Health Care Facility

Voluntary Cleanup Tax Credits

Tax Credit Type	Application Frequency	Maximum Credit for Costs Incurred after 06/30/06	
Site Rehabilitation	Annually	50%	$500,000
No Further Action Bonus (i.e., SRCO)	Once	25%	$500,000
Affordable Housing Bonus	Once	25%	$500,000
Health Care Facility Bonus	Once	25%	$500,000
Solid Waste	Once	50%	$500,000

Site Rehabilitation Costs Eligible for VCTC

- "integral to site rehabilitation"
  - As required by
    - Chapter 62-780 – Brownfields and Drycleaning
  - Examples Include:
    - Site Assessment Activities
    - Remedial Actions
    - Legal Assistance (directly related to the voluntary cleanup)

Site Rehabilitation Costs Eligible for VCTC (Continued)

- "solid waste removal"
  - Only available for:
    - Brownfield sites
    - Never operated as a permitted solid waste disposal area
    - Never operated for monetary compensation
  - Affidavit from local government official
  - Examples Include:
    - Transportation of solid waste to disposal facility
    - Sorting or screening of solid waste
    - Clean backfill to natural grade

VCTC Application Process Summary

Step 1 Application Submitted

Step 2 Date/Time Stamp

Step 3 Completeness Review

Step 4 Complete

Step 5 Eligibility Review

Step 6 Eligibility Letter

Step 7 Issue Tax Certificate

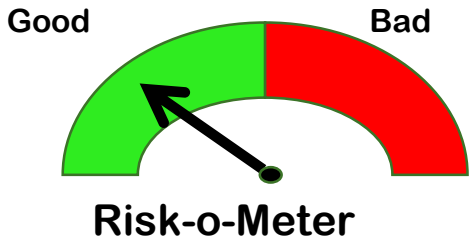
Topic 3. Making RBCA site closure more friendly to redevelopment

.....Cutting edge stuff

RBCA Streamlining is Ongoing

- Legislative actions
- Rule making
- Agency guidance publications
- Precedent setting actions

A Few RBCA Streamlining Tools



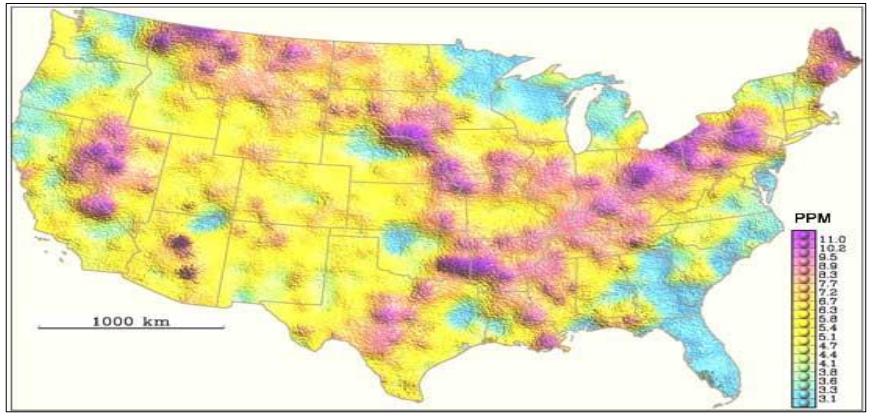
- Changes in Background Evaluations
- Changes in Leachability Evaluations
- Use of “Conceptual Site Model”
- Innovative Assessment Methods
- Alternative Clean-up Targets
- Plume segregation
- Redevelopment is the Remedy

Legislative Changes SB100 (2016)

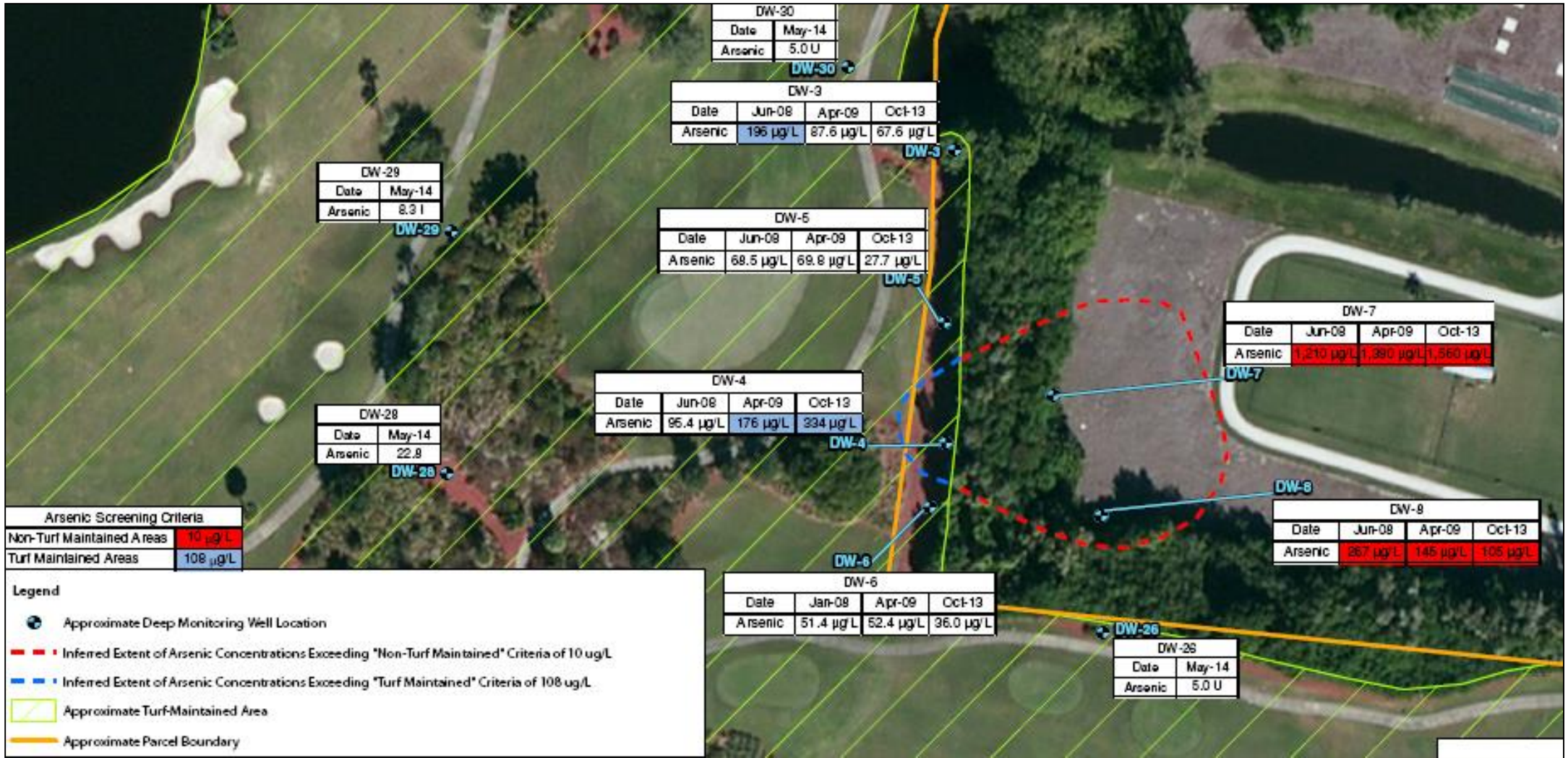
(4) "Background concentration" means the concentration of contaminants naturally occurring **or resulting from anthropogenic impacts unrelated to the discharge of pollutants or hazardous substances at a contaminated site undergoing site rehabilitation**.

Addressing Background Conditions

- Site-Specific Background
  - FDEP Soil Background Guidance
- Existing Background Data
  - FDEP compiling background databases
- Regional Background Studies
  - UF/FDEP studies
  - DERM Studies



Use of Anthropogenic Background



Leachability Basics: Chapter 376.30701(1)(i),F.S.

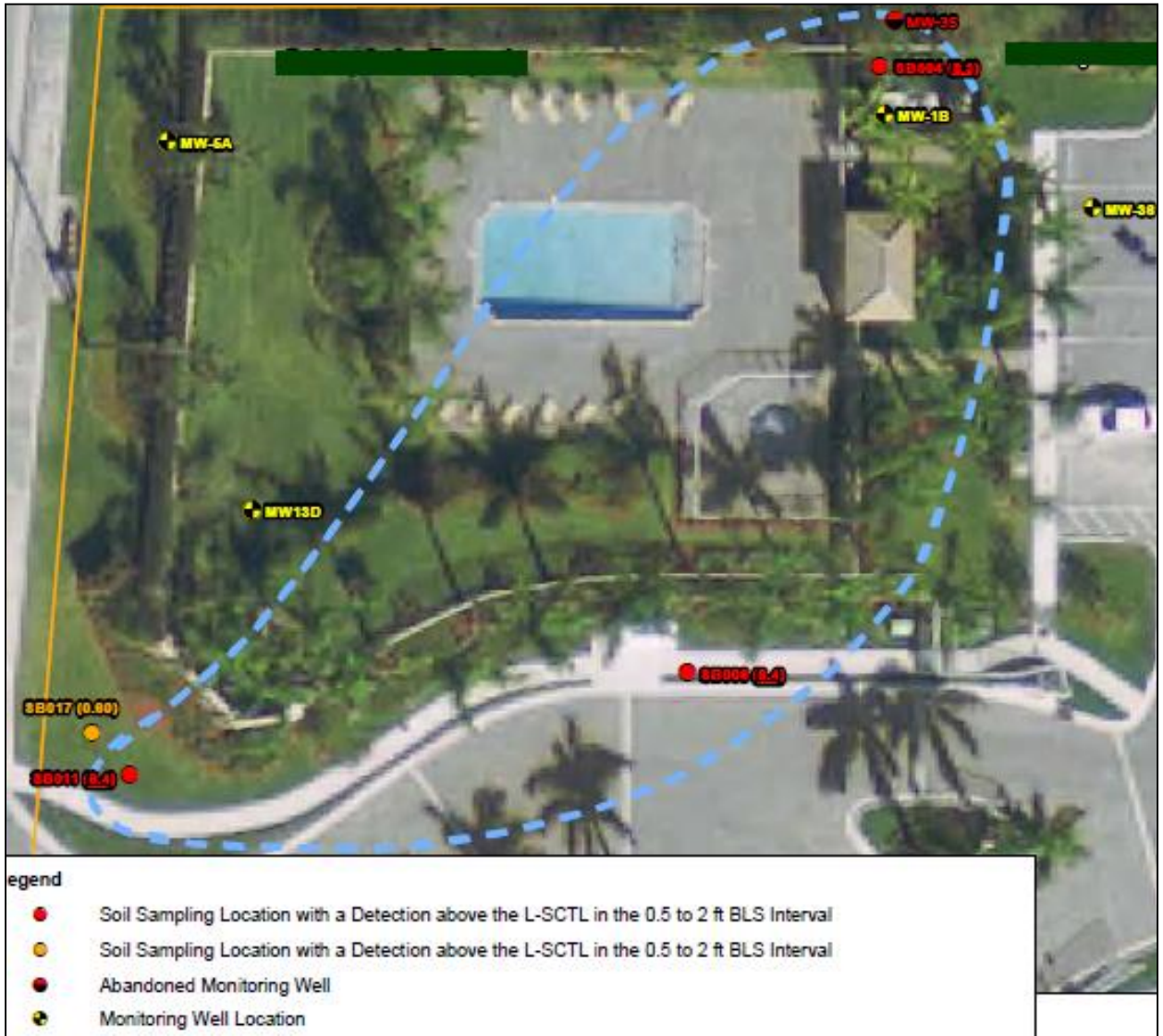
- Leachability-based SCTLs shall be based on protection of the GW CTLs (or the alternative CTLs, as appropriate).

- Leachability SCTLs shall not be applicable if FDEP determines, based upon individual site characteristics, and in conjunction with ICs/ECs, if needed, that contaminants will not leach into the groundwater at levels that pose a threat to human health and the environment.

Options to Evaluate Leachability

1. Soil < 62-777 L-SCTLs
2. When no GW impacts are present, no leachability issue even if soil > 62-777 L-SCTL
3. Where GW concentrations are consistent with "background" - no leachability issue even if soil > 62-777 L-SCTL
4. Use of direct test of soil leachability (SPLP or other)
5. Site specific derivation of L-SCTLs using actual soil characteristics or back-calc from Alterative GCTLs (i.e., Poor Quality CTLs)
6. Evaluation of GW data or fate & transport modeling
7. Use of Engineering Controls

A Leachability Soil Plume – No Cleanup



Chapter 62-780, F.A.C. Proposed Rule Making

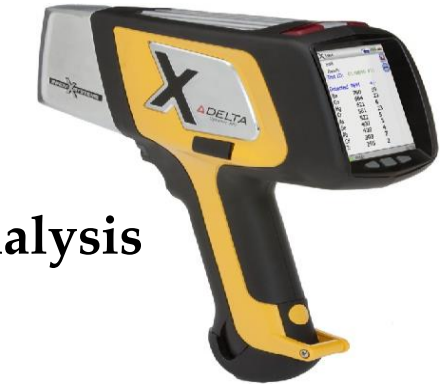
- "Conceptual Site Model" (CSM) means a written and/or graphic representation of the physical, chemical and biological processes that affect the transport, migration and actual or potential exposure to contamination in all affected media to human and ecological receptors. The CSM is used to develop and refine the extent of site assessment, support remedial alternative and cleanup technology evaluations, and support risk management decisions.

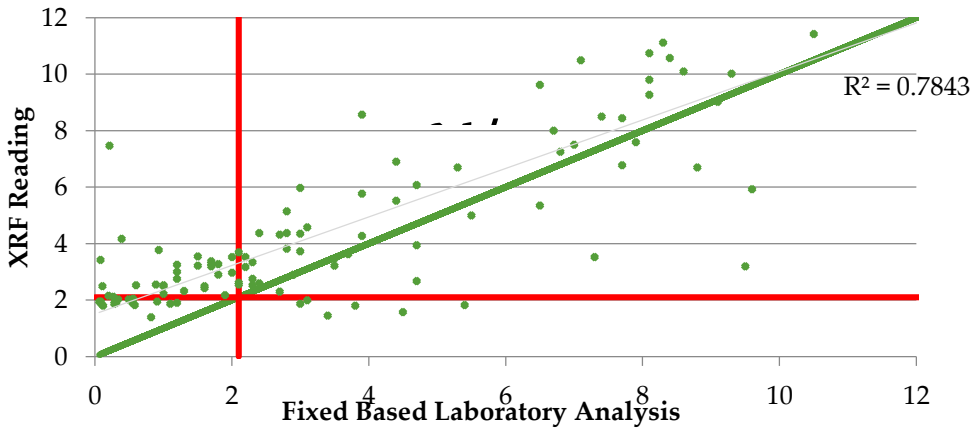
Chapter 62-780, F.A.C. Proposed Rule Making

- Strengthened language on use of field screening techniques
  - Allow for use in decision-making, with appropriate verification
  - Not limited to determining optimal locations for collecting samples for lab analysis
  - Example: XRF screening
- Incremental Sampling Methodology (ISM) as an option for soil sampling
  - Fewer *analytical* samples
  - More representative estimate of mean concentration
  - Reduces the likelihood of chasing a spurious 'hot-spot'
  - Decreased sample error and data variability

Site Assessment - Streamlining

Arsenic Analysis





XRF field measurements used for site assessment

ISM vs Discrete Sampling Strategies

Increments =40

Discrete n=10

Alternative Cleanup Target Levels (ACTLs)

- Chapter 62-777, F.A.C. tables are not standards, but offered as conservative 'walk-away' defaults
- Overly conservative assumptions embodied in equations result in CTLs not reflective of

  " actual circumstances of exposure"
- Historically, FDEP has been reluctant to allow alternative methods or assumptions to derive ACTLs (exception is recreational)

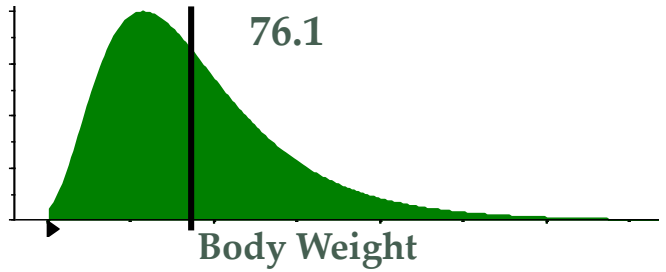
ACTLs using Probabilistic Risk Assessment

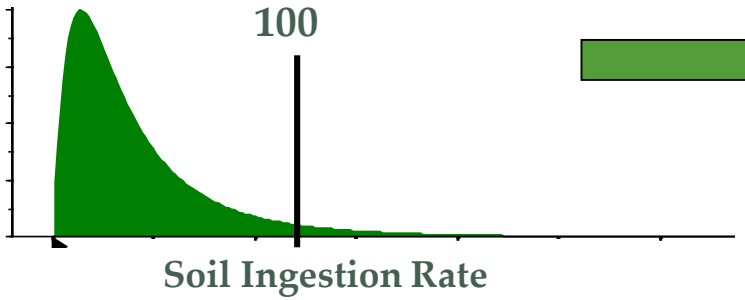
(Feb 2014 rev. to 62-780, FAC)

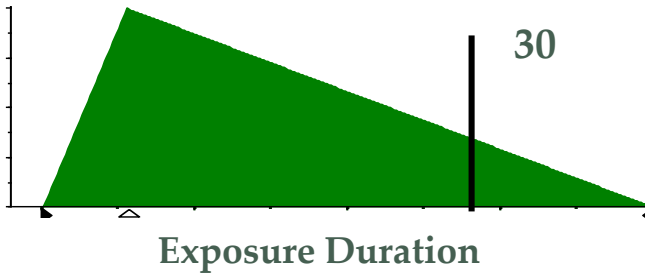
- PRA is permitted!
- Allows range/distribution of inputs, rather than single point assumptions
  - Must use FDEP Chapter 62-777, F.A.C. Risk Equations
  - The ACTL must protect the 90th percentile
- Institutional controls are not necessarily required (RMO III – no restrictions)
- May define "alternative basis of exposure" (think Restrictive Covenants)

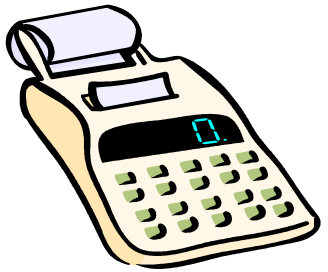
Probabilistic Risk Example

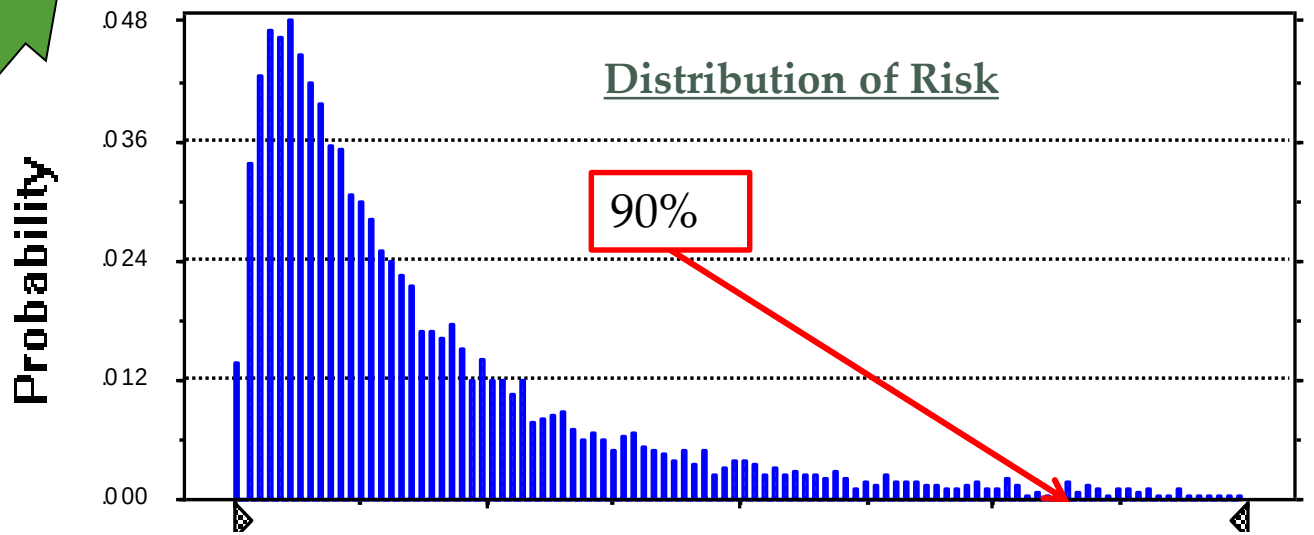
$$SCTL = \frac{[\text{Target Risk}] \times [\text{Body Weight}] \times [\text{Constants}]}{[\text{Soil Ingestion}] \times [\text{Toxicity}] \times [\text{Exposure Freq}] \times [\text{Exposure Duration}]}$$











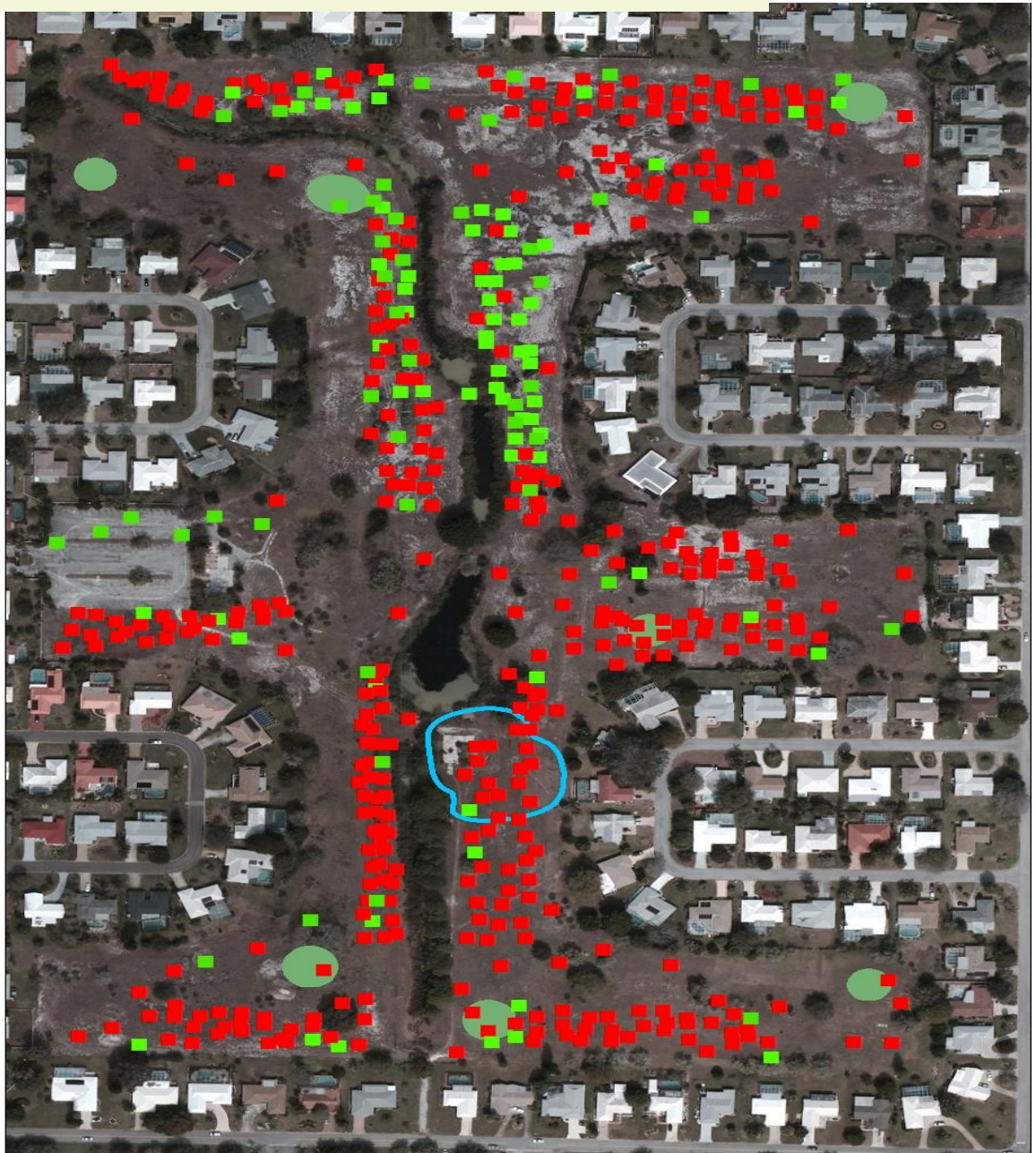
Golf Course Assessment
Arsenic Exceedances in Surface Soils

Subsurface just as impacted!!!

- Estimated 200,000 cy of soil
- $40/ton
- ~$10 million

arsenic < 2.1 ppm

arsenic > 2.1 ppm



Alternative SCTL - **Geezer Scenario**

- **Institutional controls required**
  - 55+ community with prohibition of children for more than 1 month residency per year

- **Alternative assumptions**:
  - ingestion rate for adult 50 mg/day (120/50 = 2.4)
  - default adult body weight 76.1 kg (76.1/51.9=1.47)
  - use of defaults for all other parameters

- Alt-SCTL = **7.4 mg/kg**

Cut Lines for Geezer Scenario

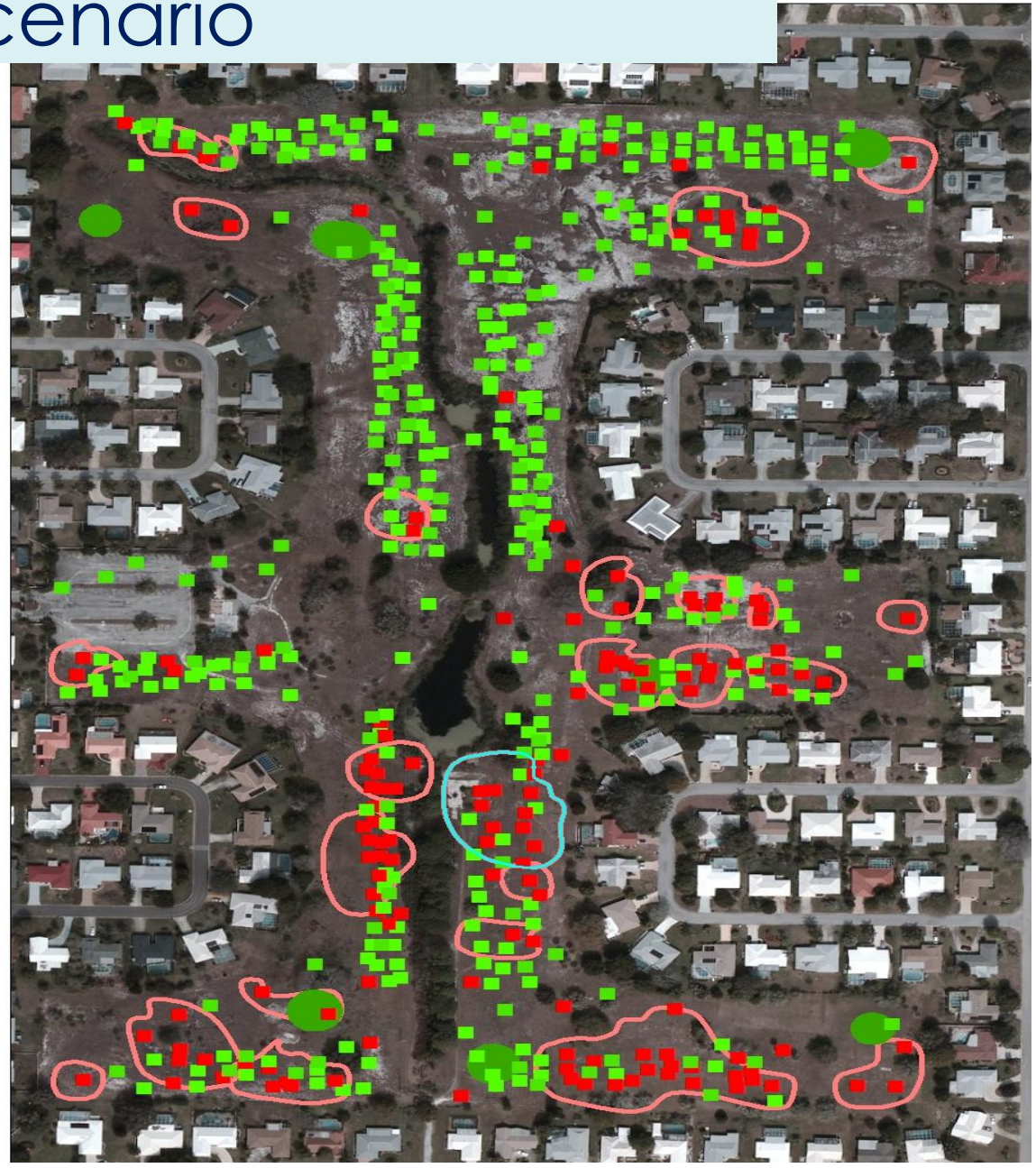
Worse case scenario:
5,000 cu yds
~$250,000

arsenic < 7.4 ppm

arsenic > 7.4 ppm

maintenance shed excavation area

surficial excavation areas



Restriction of Groundwater by Aquifer

- Groundwater restrictions can be limited to a particular aquifer or to a limited portion of a property in appropriate circumstances
- Weight of evidence approach (in draft ICPG):
  - nature and concentrations of contaminants
  - affected aquifer(s)
  - size and location of plume
  - proposed use(s) of aquifer to be permitted
  - ability to demonstrate isolation of the proposed restricted aquifer from the aquifer(s) that will remain available for use
  - interconnections to surface water

Redevelopment Strategy is the Remedy!

- Reduce unacceptable exposure to contamination through:
  - A new land use which inherently limits exposure
  - Positioning sensitive assets away from contamination
  - Relocating contamination into less sensitive areas of the site
  - Pavement and buildings which cover contaminated media

Closing Remarks / Q&A

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