



Management of Contaminated Sites in Nova Scotia

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Background

- Movement from previous policy/guidance approach for contaminated sites to regulations as of July 2013
- Aimed to address liability concerns, encourage brownfield redevelopment and to provide consistent approach for all work at contaminated sites
- Work began in 2006 with regulations passed in 2012
- NS continues to utilize risk based site management approach in conjunction with *Atlantic PIRI*

Who and How Affected?

- Regulations affect ALL contaminated sites
 - Brownfields
 - Commercial/Industrial
 - Residential
 - Public & Private sites
- Process Includes
 - Mandatory Notification
 - Assessment
 - Remedial Action
 - Confirmation & Closure

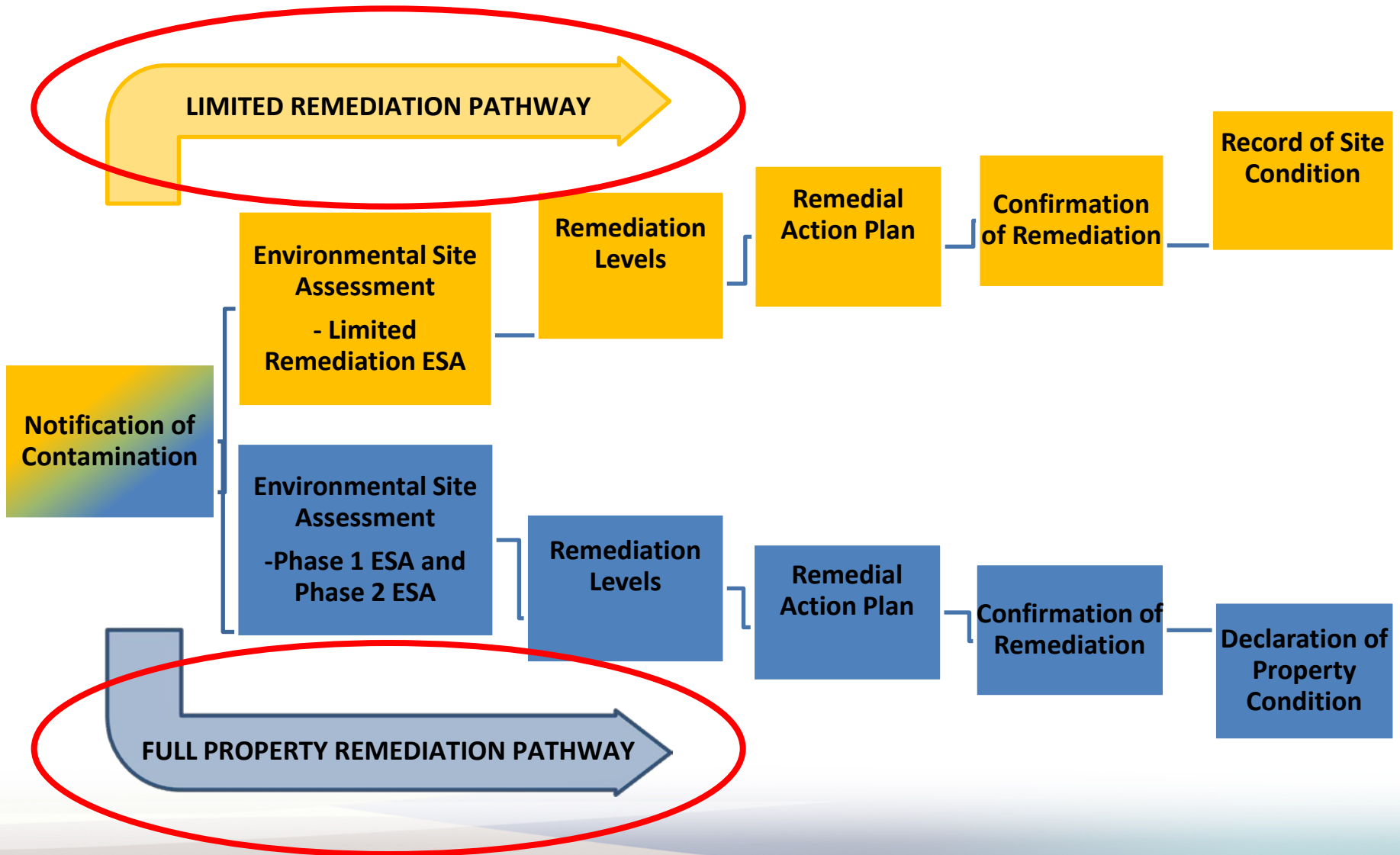
The Regulations outline

- Specific responsibilities for persons involved
- Site Professional qualifications and expectations
- Timeframes for assessment and remediation
- Comprehensive tables of compiled numerical Tier 1 Tier 2 pathway specific environmental criteria for Nova Scotia
- Allowable remediation level approaches include:
 - Generic Tier 1 Environmental Quality Standards (EQS)
 - Tier 2 Pathway Specific Standards (PSS)
 - Risk-modelled Site Specific Risk Assessment (SSRA)
 - Exposure management measures

The Regulations require

- Suspected contamination to be evaluated for notification requirements and possible exemptions
- The regulations to be followed once Notification is made
- One of two remediation streams to be followed:
 - Limited Remediation
 - Full Property Remediation
- Adherence to 7 “Ministerial Protocols”
 - Provide the technical rules related to contaminated sites management processes

Remediation Pathways



Approach to site assessment/remediation

- Professional accountability (including work with professional associations on development of practice standards and guidance)
- Specific requirements for conducting work and filing information, including risk assessments
- Audits to ensure compliance
- Streamlined regulatory review process

Approach to remedial actions/technology application

- establishing remedial objectives and approaches
- implementing site actions to achieve the objectives
- monitoring and reporting
- ensuring no adverse effects to the environment
- Overall performance based outcome approach

Approach to Risk Based Corrective Action (RBCA)

- Long-standing NS approach that continues within regulations
- Key issues are *Unconditional* and *Conditional remediation*
- Conditional results in risk management
- Unconditional results in achieving generic or site specific standards (Tier 1 or Tier 2)
- Rely heavily on our partnership with *Atlantic PIRI*

Risk Based Corrective Action (RBCA)

-Third party considerations

- NS approach includes “Conditional and Unconditional Remediation”
- Both are acceptable for application to third party sites
- *Conditional remediation* approaches at third party sites require **third party agreement** prior to regulatory filing

Atlantic PIRI and Atlantic RBCA

- **Partnership In RBCA Implementation-** since 1997
- Created and maintains Atlantic RBCA
- All four Atlantic provinces, consultants and industry
- Produce technical tools, standards (petroleum), guidance and training, including on line Atlantic RBCA training

Ongoing Atlantic PIRI technical projects

- Updated Indoor air and Soil Vapour assessment guidance (this fall)
- Application of Atlantic RBCA toolkit for chlorinated solvents in soil and groundwater (this fall)

Ongoing work with Nova Scotia's regulations

Background soil concentrations:

- Gathering data from existing datasets
- Looking at Ontario, BC's and Quebec's approaches at publishing upper range background levels
- Looking at urban versus rural data
- Incorporate natural and anthropogenic issues
- Hope to produce materials in 2015

Ongoing work with Nova Scotia's regulations

- Continued work with professional associations on practice standards
- Commitment to continuous evaluation, improvements and adjustments

Thank you for attending the presentation

- Comments or inquiries regarding the *Contaminated Sites Regulations* and Ministerial Protocols should be directed to:

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