

ALEXANA ENGINEERING

ENVIRONMENTAL DUE DILIGENCE

WHAT IS ENVIRONMENTAL DUE DILIGENCE?

Phase I Environmental Site Assessment

- reviews the history and current uses of both the Site and the adjacent properties
- non-intrusive, but requires a Site visit
- outcome is a statement regarding the possibility of environmental impacts at the Site due to environmental risks from onsite or offsite sources

Outcome: Report does or does not recommend a Phase II ESA

WHAT IS ENVIRONMENTAL DUE DILIGENCE?

Phase II Environmental Site Assessment

- Physical investigation of those risks through drilling and/or test pitting
- Intrusive assessment, includes collection of soil and/or groundwater samples

Outcome: Report will state if environmental impacts were found at the Site

Next Steps for properties with impacts:

- Do nothing
- Remediation (physical clean up of property)
- Risk Assessment

WHAT IS ENVIRONMENTAL DUE DILIGENCE?

Phase III Environmental Site Assessment

- Cleaning up the soil and/or groundwater impacts identified in the Phase II ESA
- Types of clean up: dig and dump, injections, insitu remediation

Risk Assessment

- Leave impacts in place, build safety measures to keep people/ plants safe from the impacts
- Best used when impacts are deep, hard to clean up (dry cleaning impacts), and/or under buildings



WHY DO I CARE?

WHO WILL BE ASKING FOR THESE REPORTS?

FINANCIAL INSTITUTIONS and/or INVESTORS

CITY OR MUNICIPALITY (PERMITS OFFICE)



TIMING: FINANCE VS PERMITS

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Financing	Permits
DUE DILIGENCE	REGULATORY
At the time of	At the time of
purchase / refinance	construction





Required when changing a land use to a more sensitive use (ie commercial to residential)



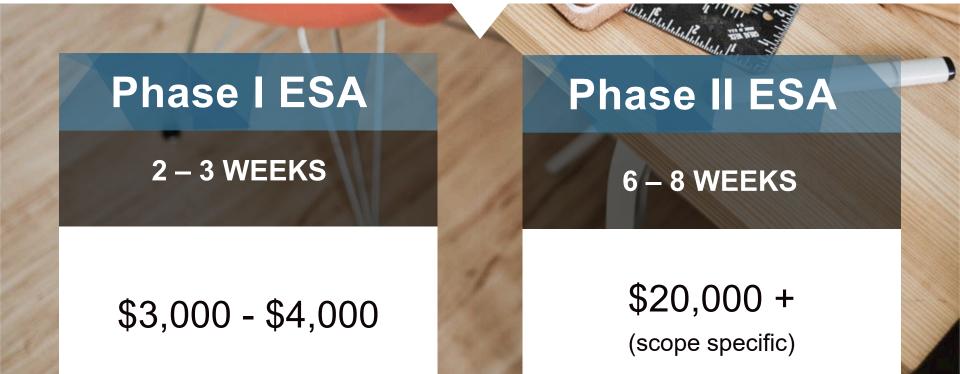
Reports must be written to meet O.Reg. 153/04 requirements (\$\$\$)



3 month process with review by the MECP



TIMING AND PRICING: FOR FINANCE PURPOSES





TIMING AND PRICING: FOR PERMIT PURPOSES





IF ALL THE FOLLOWING APPLY TO YOUR SITE, RSC NOT REQUIRED

- The property has never been used for: industrial use, a garage, gas station, or dry cleaners
- Building envelope remains the same, no additions to the exterior
- Building has no more than six stories, before or after the change

CHOSING A PROPERTY: ENVIRONMENTAL CONSIDERATIONS

High Risk Properties

- Gas Stations or Underground Tanks: Upgradient or beside your property up to 50 m
- Dry cleaners: anything within 100 m, in any direction
 - 1-hour dry cleaners = onsite chemical use
 - Highest chemical uses: 1960s to 1990s
 - Lots of major streets in Toronto had dry cleaners on every block
- Area of dense industrial and/or manufacturing, typically near railway lines
- Anything south of Front Street



MY PROPERTY IS IMPACTED, NOW WHAT?

QUESTIONS TO ASK YOUR CONSULTANT

- Soil or groundwater impacted?
- Do we know the source?
- **OFFSITE LIABILITY?**
- Full extent of impacts known?
- Remediation Options? Timing?
- Remediation Costs?

- Are the remediation costs fixed cost or potentially ongoing/ growing?
- Can your project handle the remediation costs? What if the costs increase?



TIMING: PHASE III ESA + RSC

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11	DIG AND DUMP	INJECTIONS	RISK ASSESSMENT		
	10 MTHS	21 MTHS	24 MTHS		
	- 1 month dig - 6 months GWS - 3 months RSC	 6 months injections 12 months GWS 3 months RSC 	 - 3 months drilling - 15 – 18 months RA - 3 months RSC 		
850					



EXAMPLES

- Small, infill project on Dundas
- Former dry cleaner with groundwater impacts
- Remediation solution: Risk Assessment + RSC
- Timeline: 2 3 years
- Estimated cost: \$400 \$500K

- Large redevelopment project
- Known soil and groundwater impacts
- Hazardous levels of PCBs

Result: Client did not purchase property

Result: \$1M disposal fees



WHY DO I CARE?

WHAT IS THE WORST THAT CAN HAPPEN?

ENVIRONMENTALS CAN KILL DEALS AND ERODE PROFIT



KEY TAKEAWAYS

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Investigation is an Iterative Process Know your risk tolerance for impacts, both cost and time



KEYS TO CHOSING A CONSULTANT



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