

### 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)



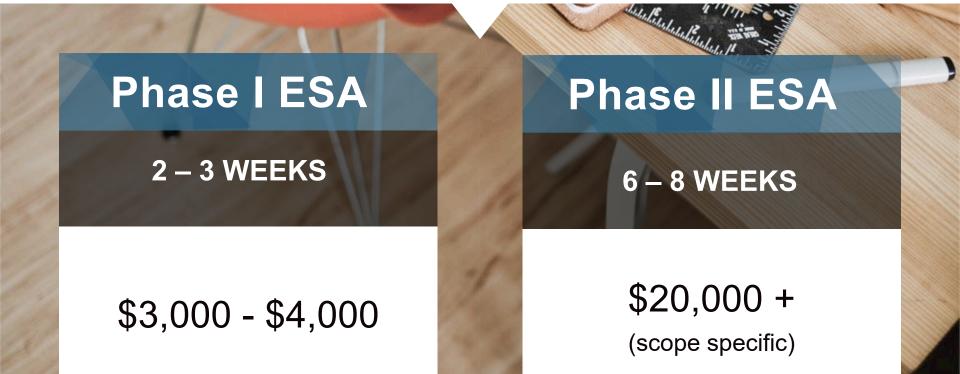
Reports must be written to meet O.Reg. 153/04 requirements (\$\$\$)



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**

12	Andrahadadade B. The State				
11	DIG AND DUMP	INJECTIONS	RISK ASSESSMENT		
	10 MTHS	21 MTHS	24 MTHS		
	- 1 month dig - 6 months GWS - 3 months RSC	<ul> <li>6 months injections</li> <li>12 months GWS</li> <li>3 months RSC</li> </ul>	<ul> <li>- 3 months drilling</li> <li>- 15 – 18 months RA</li> <li>- 3 months RSC</li> </ul>		
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**



# ALEXANA

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