Land Development

Remediation Stakeholders in a Challenging Economy

Presented By:

Jim Purves, B.Sc., P.Ag.





OUTLINE

- Former oil and gas activities on traditionally agricultural land are now being re-evaluated as part of development opportunities.
- New stakeholders in the oil and gas reclamation game.

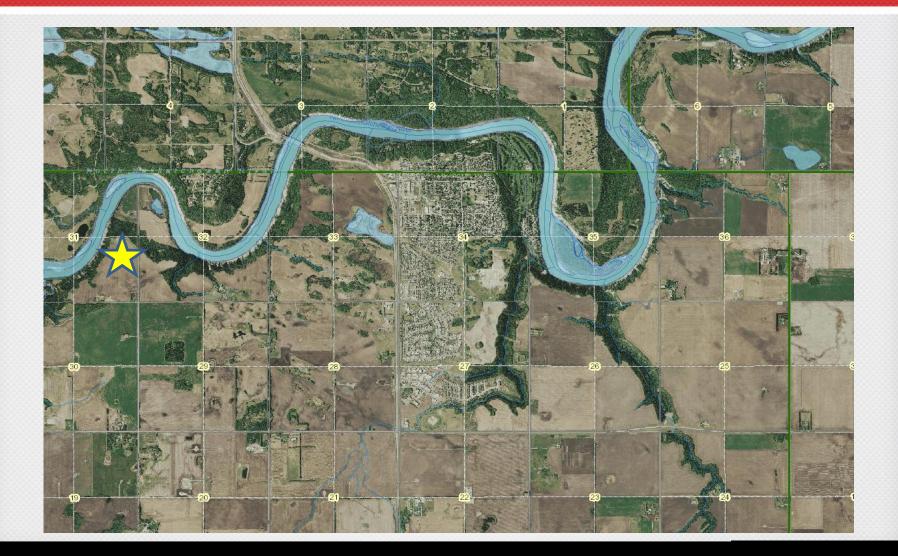
OUTLINE

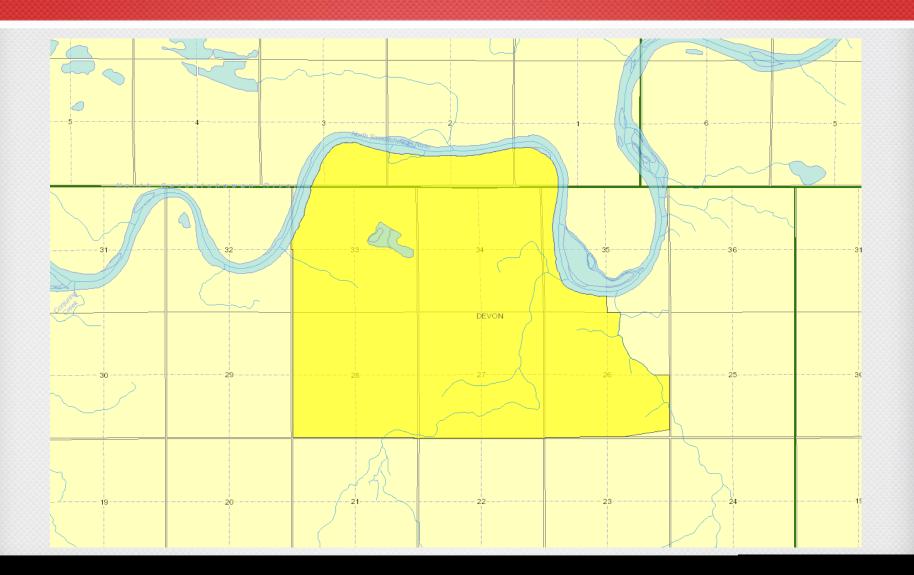
- Look at an urban encroachment example in Alberta.
- Well Closure Language
- Liability Gap Buyer Beware
- Examine four case studies in Alberta.

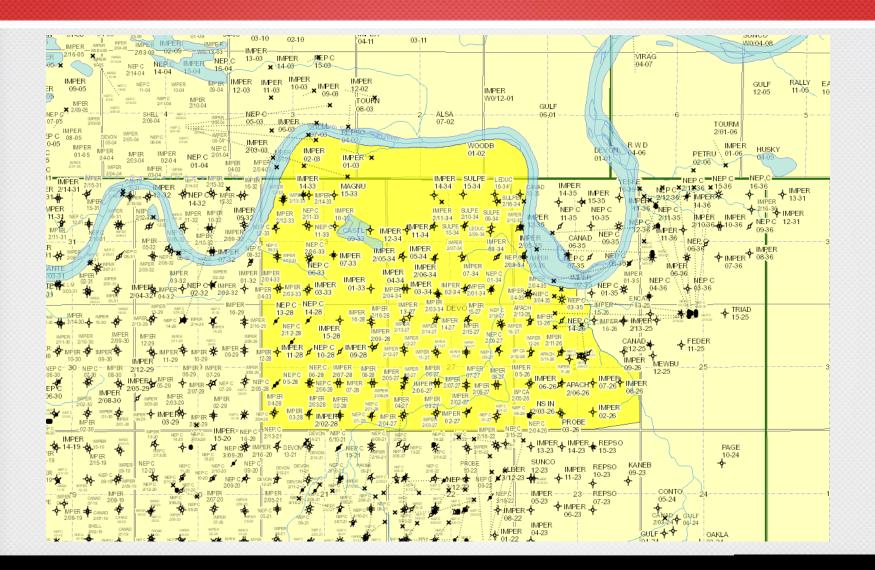


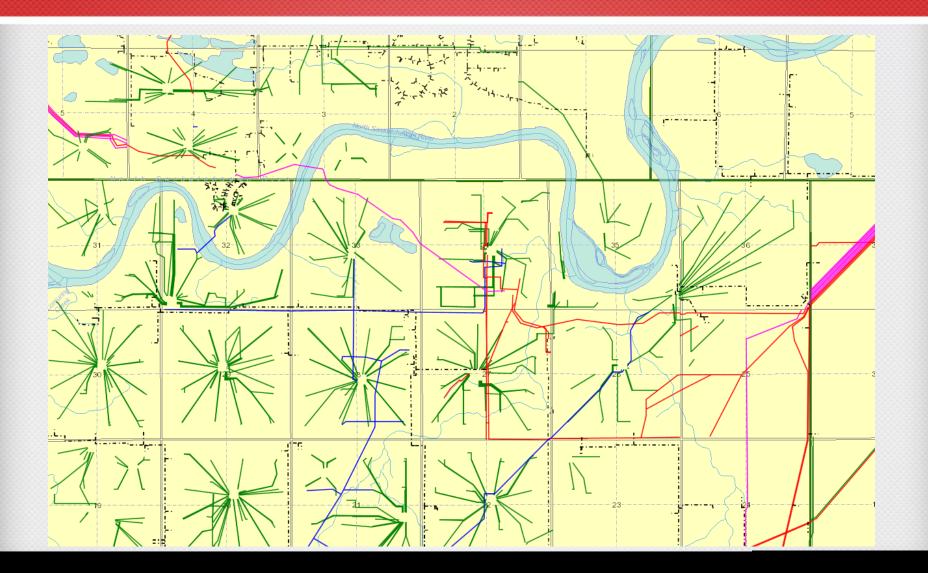
NEW STAKEHOLDERS

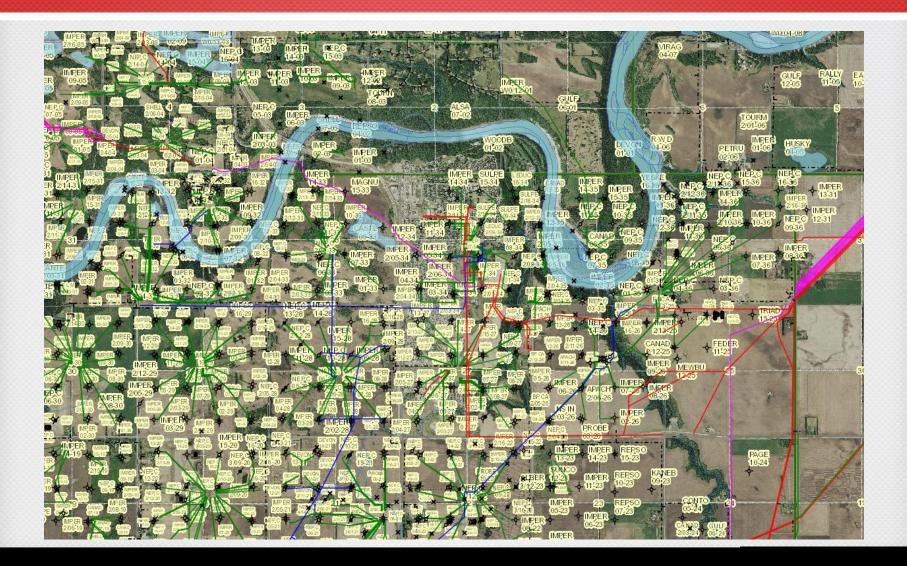
- Land Development Companies
 - Financial Institutions
- MD and County Representatives
 - Municipal Planners
 - Business Owners
 - Private Landowners



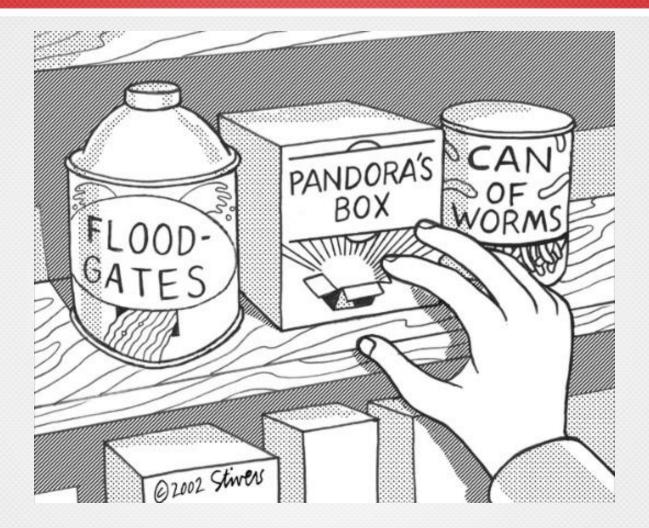








"Former Wellsite Status"



"Former Wellsite Status"

Abandoned Well

Only means surface abandonment has been completed. Does not address whether the site has been assessed or not.

Reclamation Certified

But when was the certificate issued?

Pre-2001: Requirements focused on surface reclamation and not contamination**

Post-2001: Detailed requirements for assessing contamination implemented

Reclamation Exempt

Wells that were abandoned prior to reclamation legislation being enacted, known as Reclamation Exempt (Rec Exempt) wells.

These are wells that either:

- a) In the White Area (private land) and were abandoned prior to June 1, 1963, or
- b) In the Green Area (Crown land) and were abandoned prior to August 15, 1978.

A total of 36,534 Rec Exempt Wells in Alberta Focused on surface reclamation and not contamination

Operator Liability

Operators own a lifetime liability on contamination issues

Operators own a 25 year liability on reclamation issues

Orphan Well Association (OWA)

Well, pipeline or facility without any legally responsible or financially able party to deal with it's abandonment and reclamation



Reclamation Certified and Reclamation Exempt wells are not covered under OWA.

So if your site has a

Defunct Operator with No Transfer of Liability

- There is no operator to assume liability
 - Does not fall under OWA

Rec Certified / Rec Exempt Defunct Operator Liability Gap

- Liability falls under the current landowner
- Buyer Beware Situation
- Developers generally complete due diligence (PH1 ESA)
- For Agricultural Land Sales Private Landowners may be unknowingly transferring liability
- Government Held Liability on Public Land

Four Development Examples

1) Residential

2) Active Commercial Subdivision

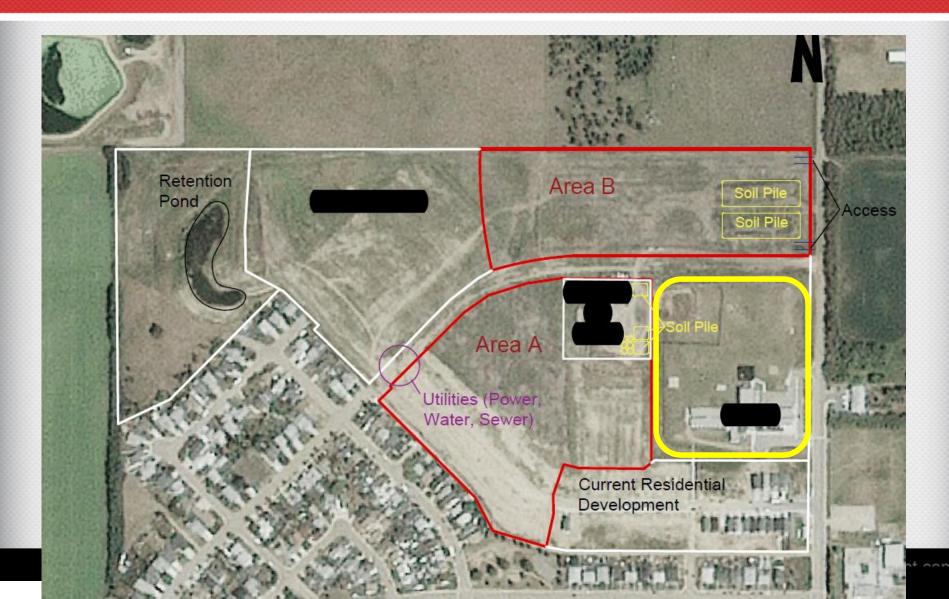
3) New Commercial Subdivision

4) Lost in Translation

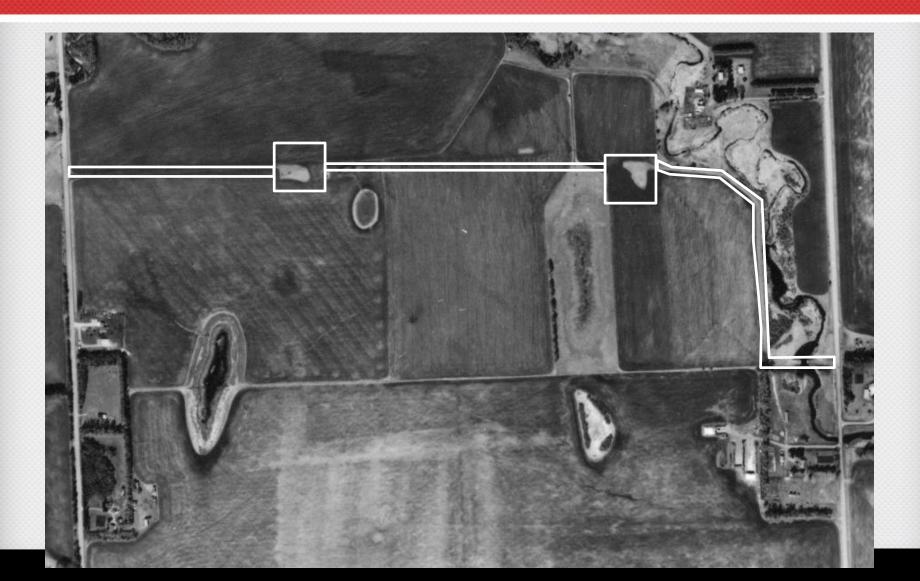
Case Study #1 Residential Development



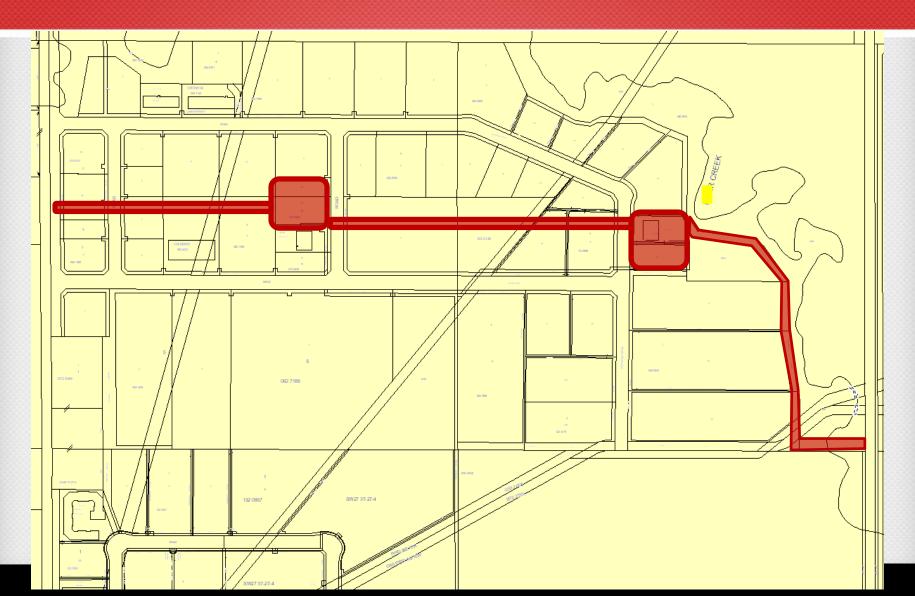
Case Study #1 Residential Development



Case Study #2 Active Commercial Development



Case Study #2 Active Commercial Development



Case Study #2 Active Commercial Development



Case Study #3 New Commercial Subdivision



Case Study #3 New Commercial Subdivision



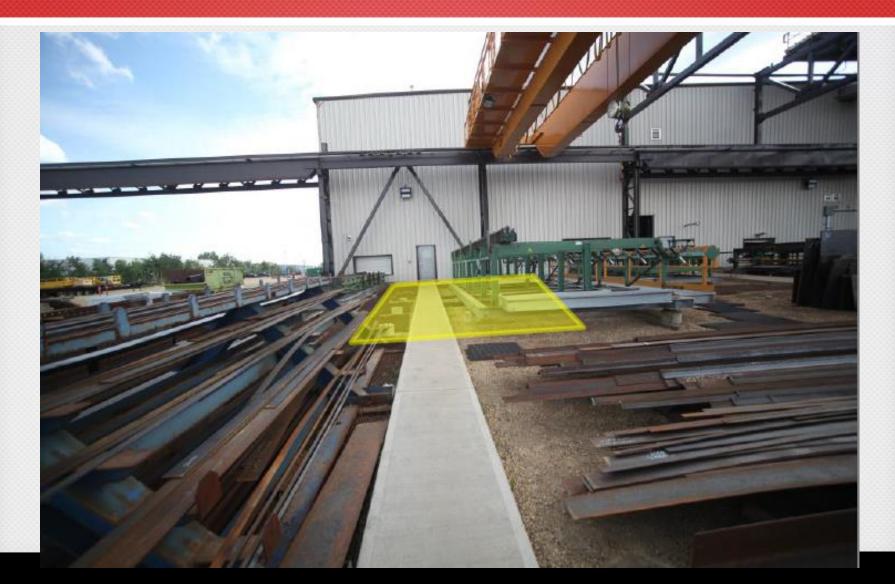
Case Study #3 New Commercial Subdivision















Goal is to improve the quality of decisions made by these new stakeholders when evaluating environmental risk associated with their development.

Liability Gap – buyer beware, especially for agricultural land sales

Equivalent Land Use Capability? - former wellsites are being omitted from development plans

Closure timelines amongst stakeholders will be challenging







Jim Purves, B.Sc., P.Ag. Technical Advisor jpurves@northshoreenv.com 780-913-6137

www.northshoreenv.com