

**Mitigating a legacy
of liability for
Alberta:** A novel
approach to the
orphaned well challenge

**ConocoPhillips IRIS Seminar
Juli Rohl
March 26, 2019**



Photo: Juli Rohl

Agenda

Truth and Reconciliation Commission call to action

What is the Liability problem?

Why does this problem exist?

Redwater Energy Supreme court case

The opportunities for innovation



ReGenerate
Alberta

- ★ Read the Truth and Reconciliation Commission of Canada Report - including the 94 calls to action
- ★ Read the United Nations Declaration on the rights of Indigenous People
- ★ Connect on a human level

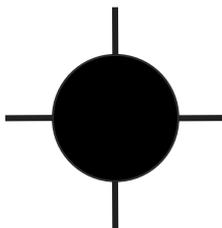




Exploration
& Drilling



Reclaim



Abandon

**Lifecycle
of a well**

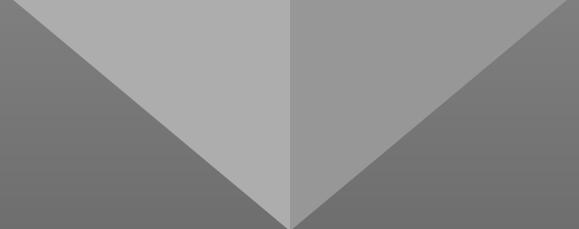
Production



Decline /
Sell



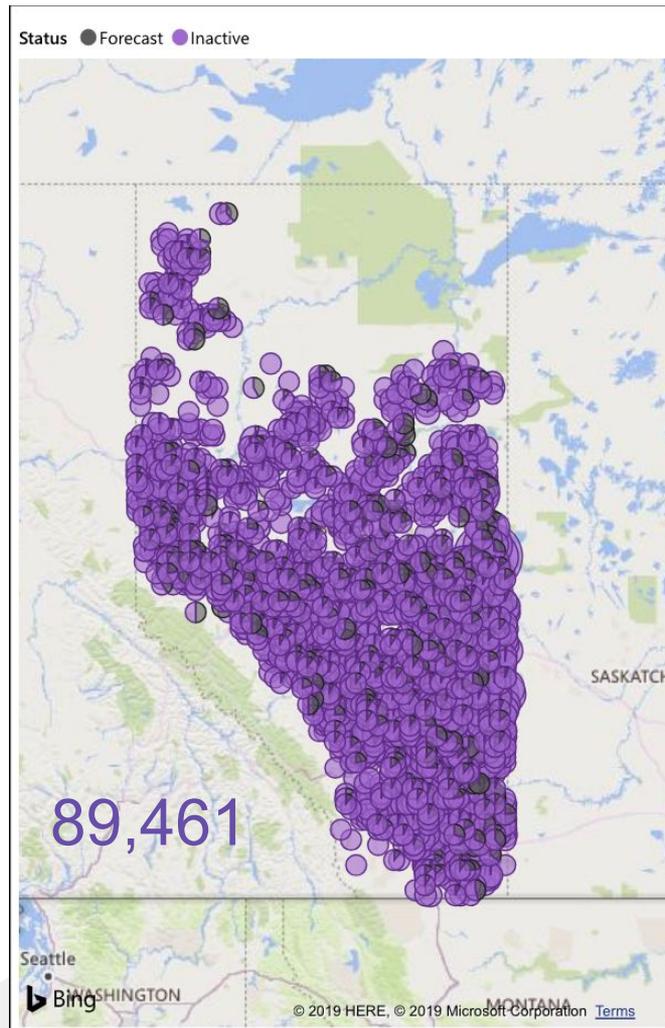
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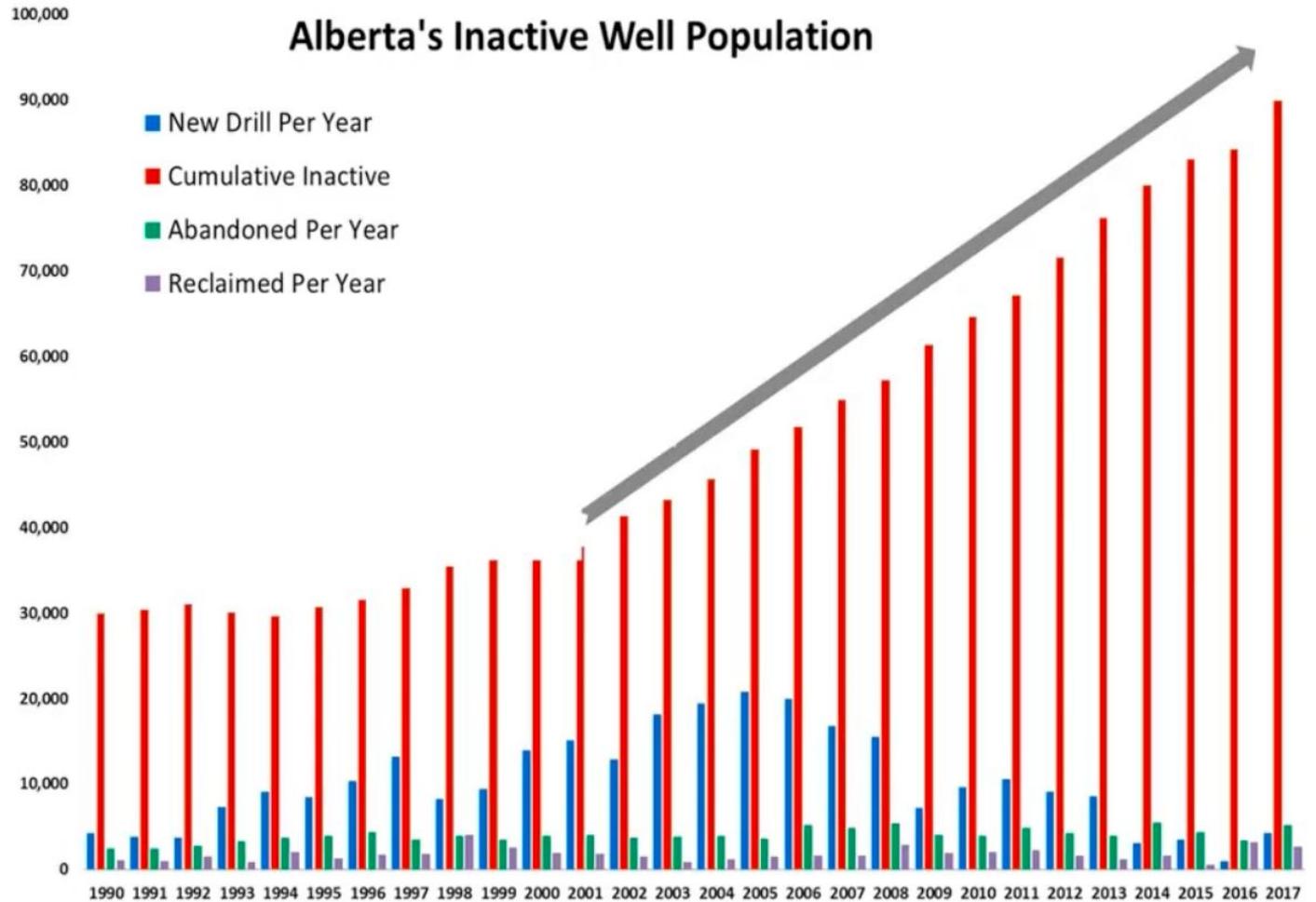
Liabilities in Alberta's oil and gas
industry are accumulating
very rapidly

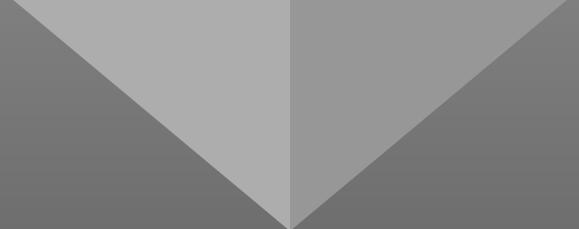
Where are the inactive wells in Alberta?

Jan 5, 2019
Source: Fuzeium



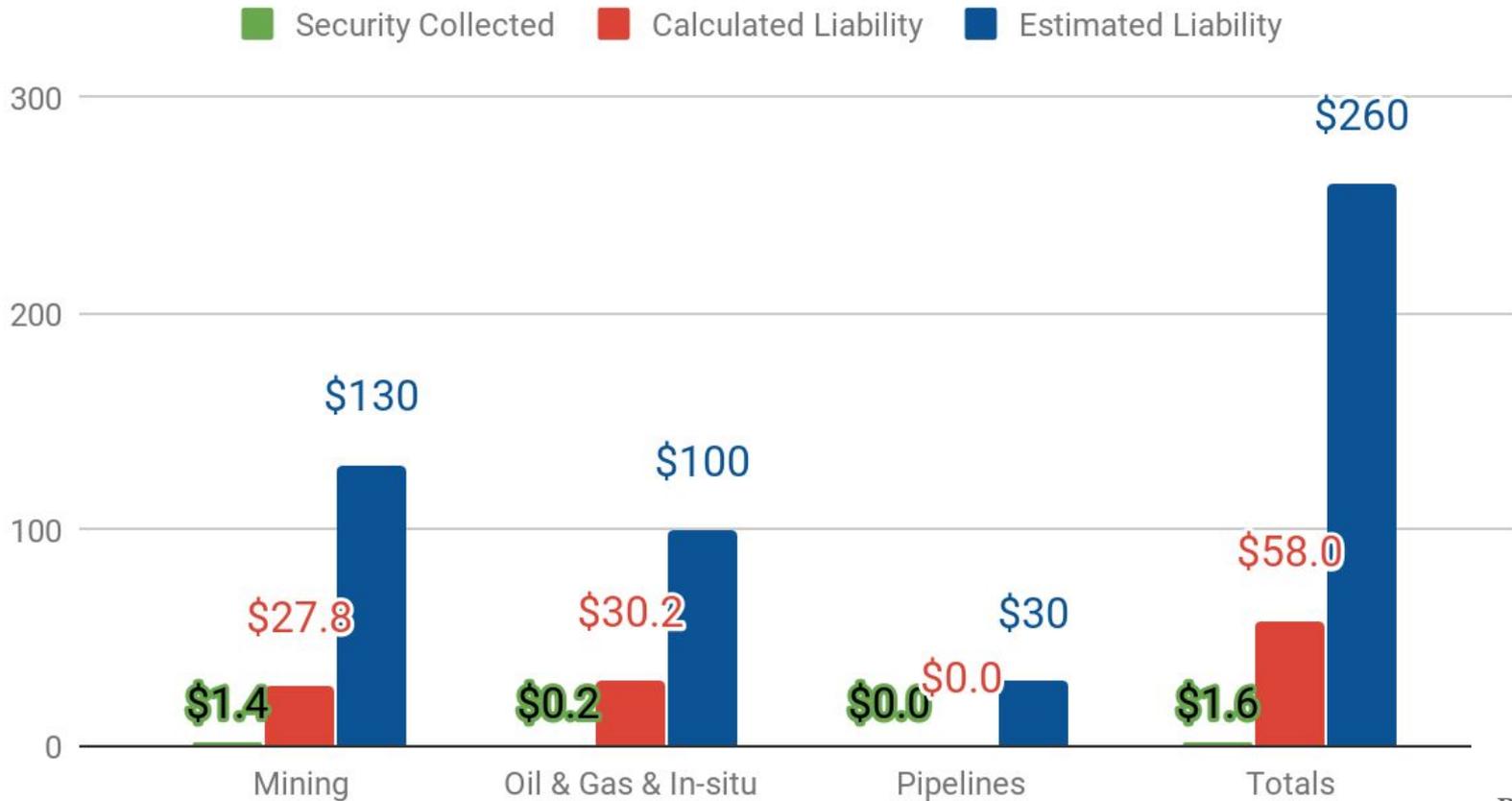
Inactive wells in Alberta



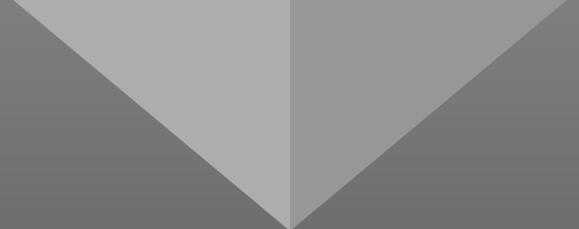


Properly addressing liabilities is
extremely expensive

Alberta Oil and Gas Liabilities (\$ Billions)

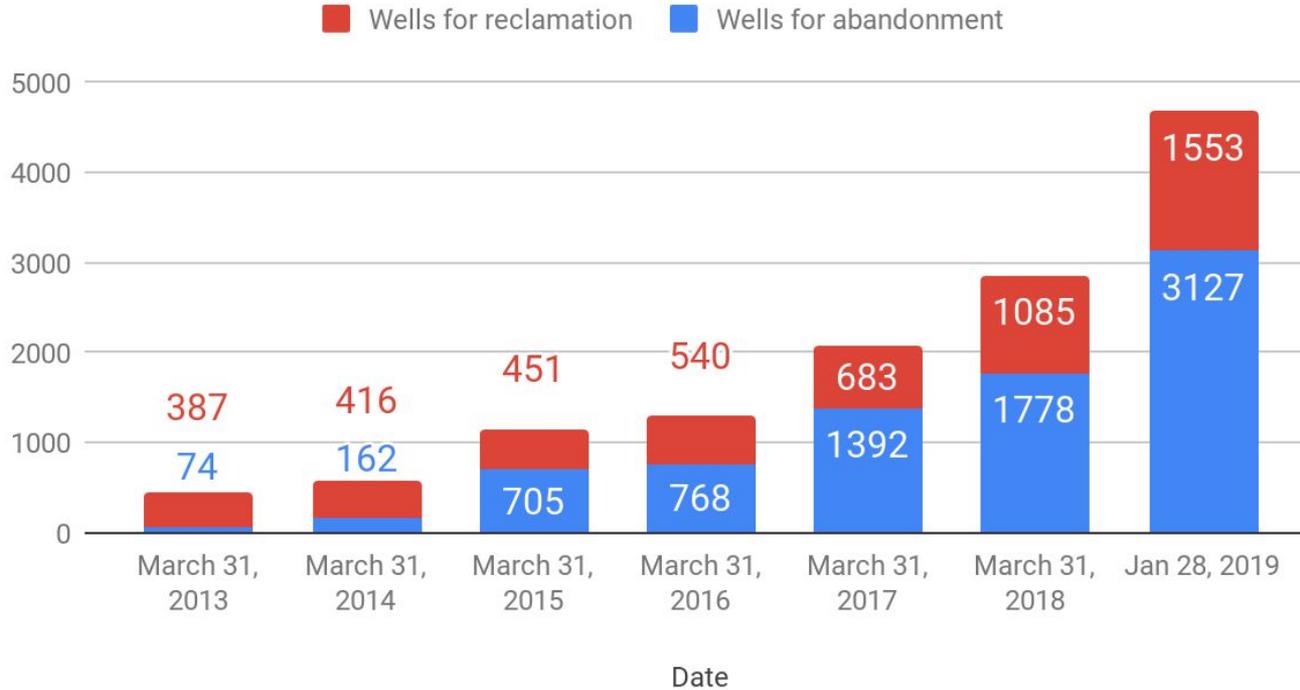


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Companies go bankrupt and leave their
liabilities behind

Historical Orphan Well Inventory

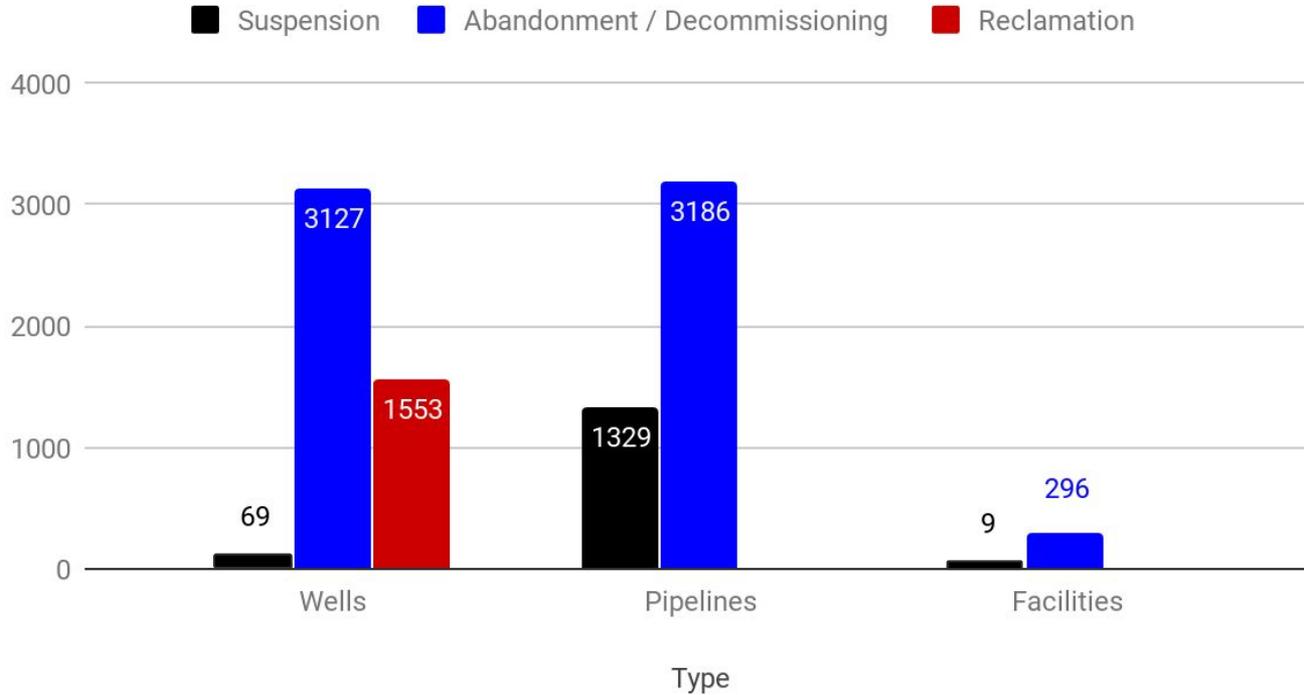


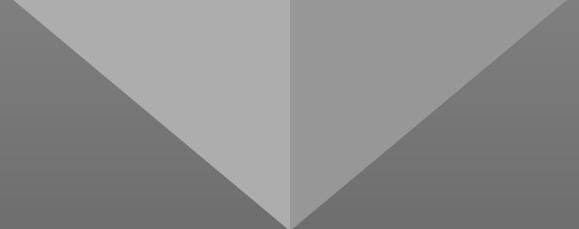
Source: Orphan Well Association response to Redwater Decision



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Current Orphan Well Association Inventory (as of Jan 28, 2019)



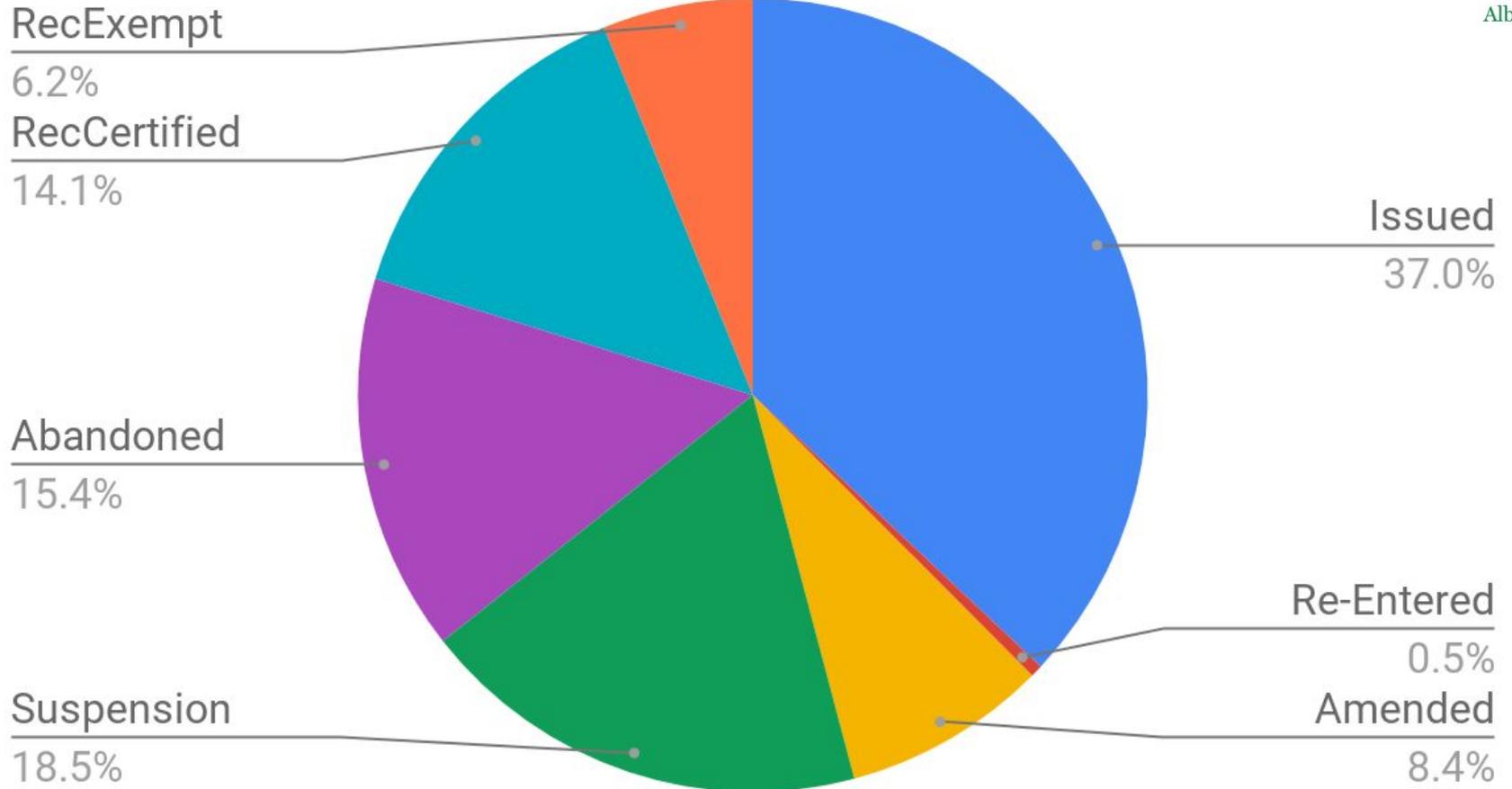


We've drilled a LOT of wells in
Alberta

All Wells Alberta - Feb 2019 (604,378)



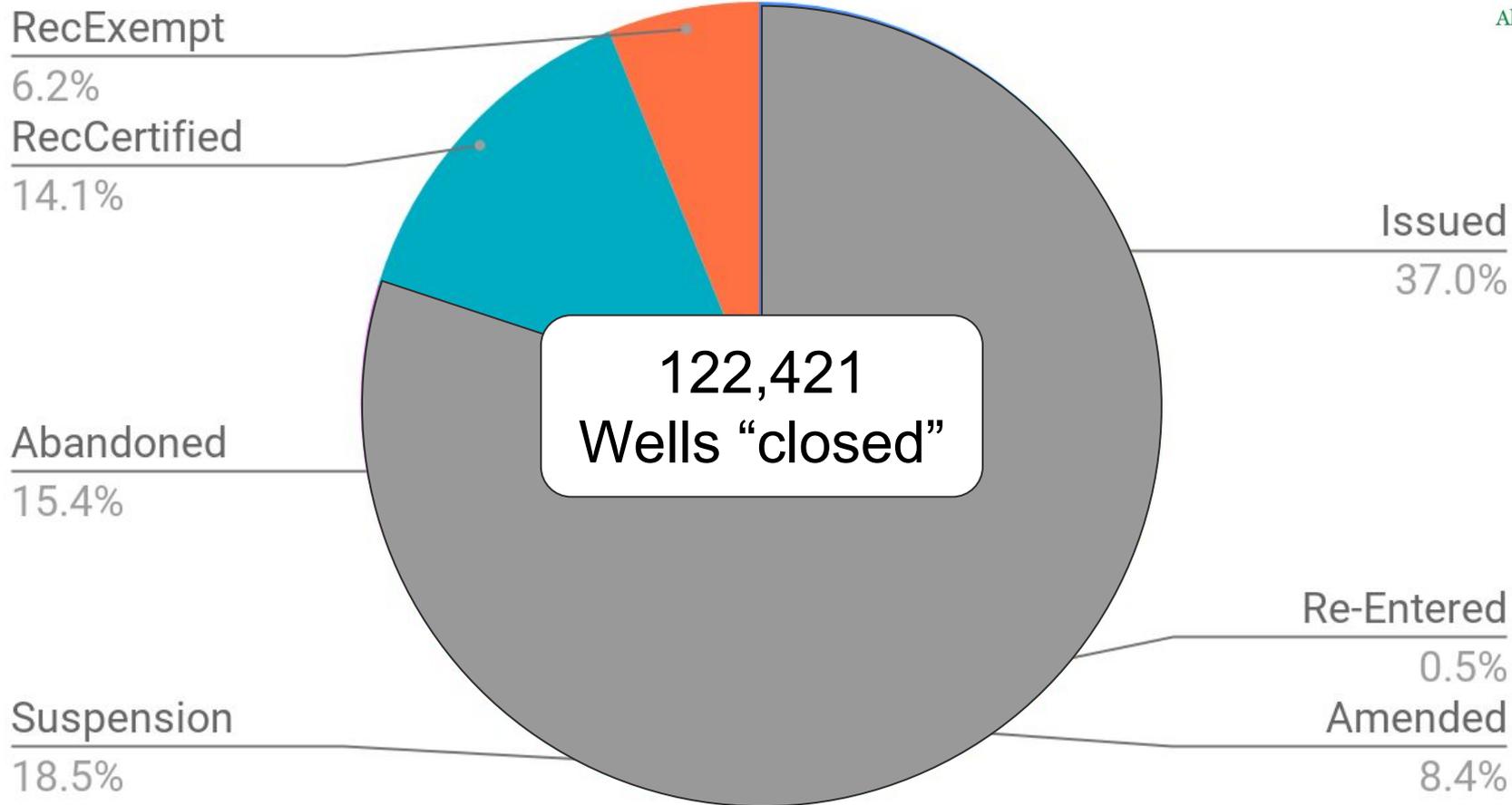
ReGenerate
Alberta



All Wells Alberta - Feb 2019 (604,378)



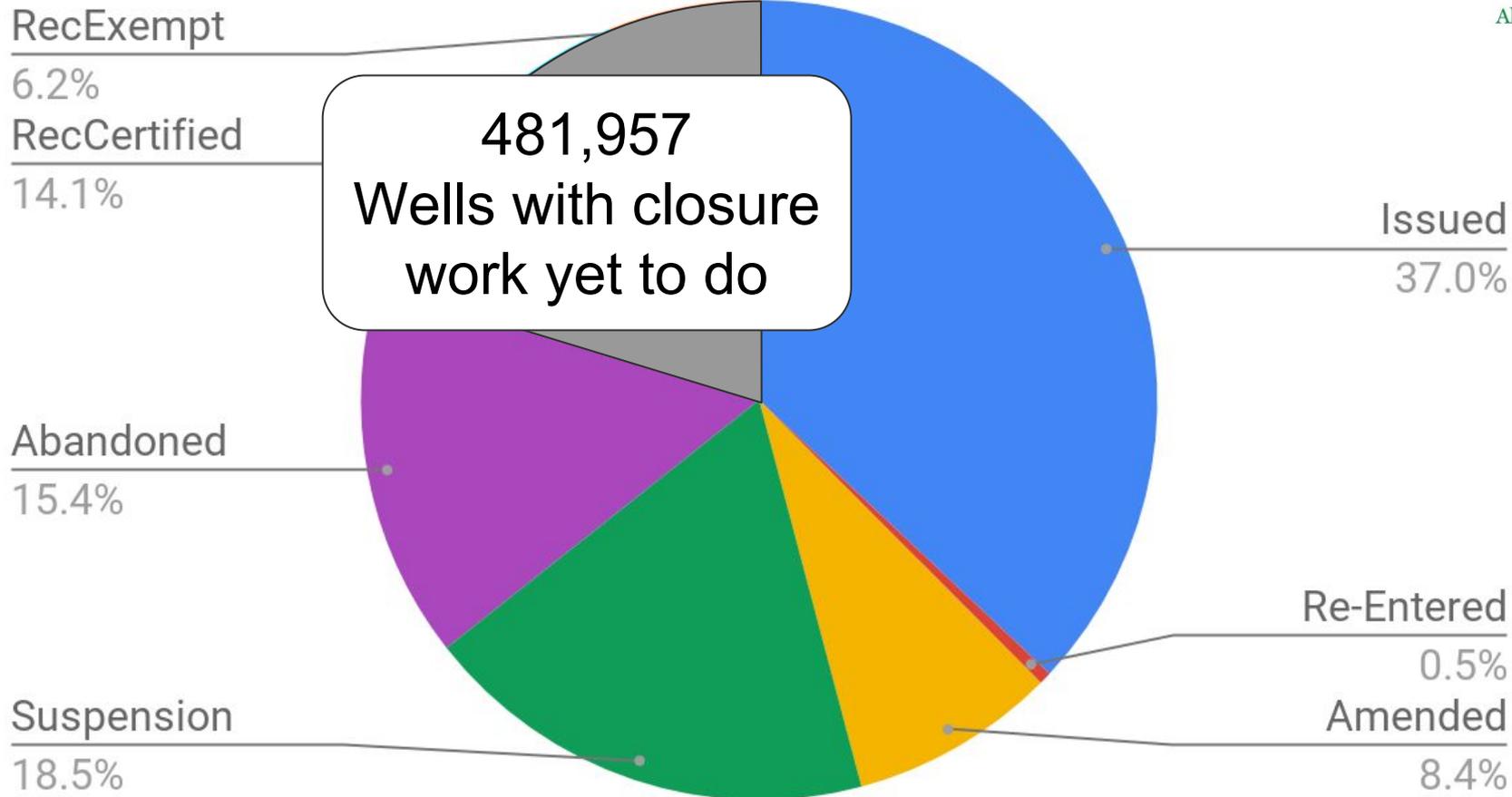
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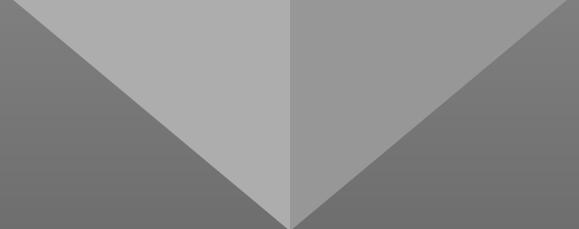


All Wells Alberta - Feb 2019 (604,378)



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how did we get here?

Past approaches to liability management

Bury

Dig and dump

Suspension

Reactivation

Timelines



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LLR

Licensee Liability Rating Program

Directive 006

Liability
Management
Rating (LMR)

=

Assets
Liabilities

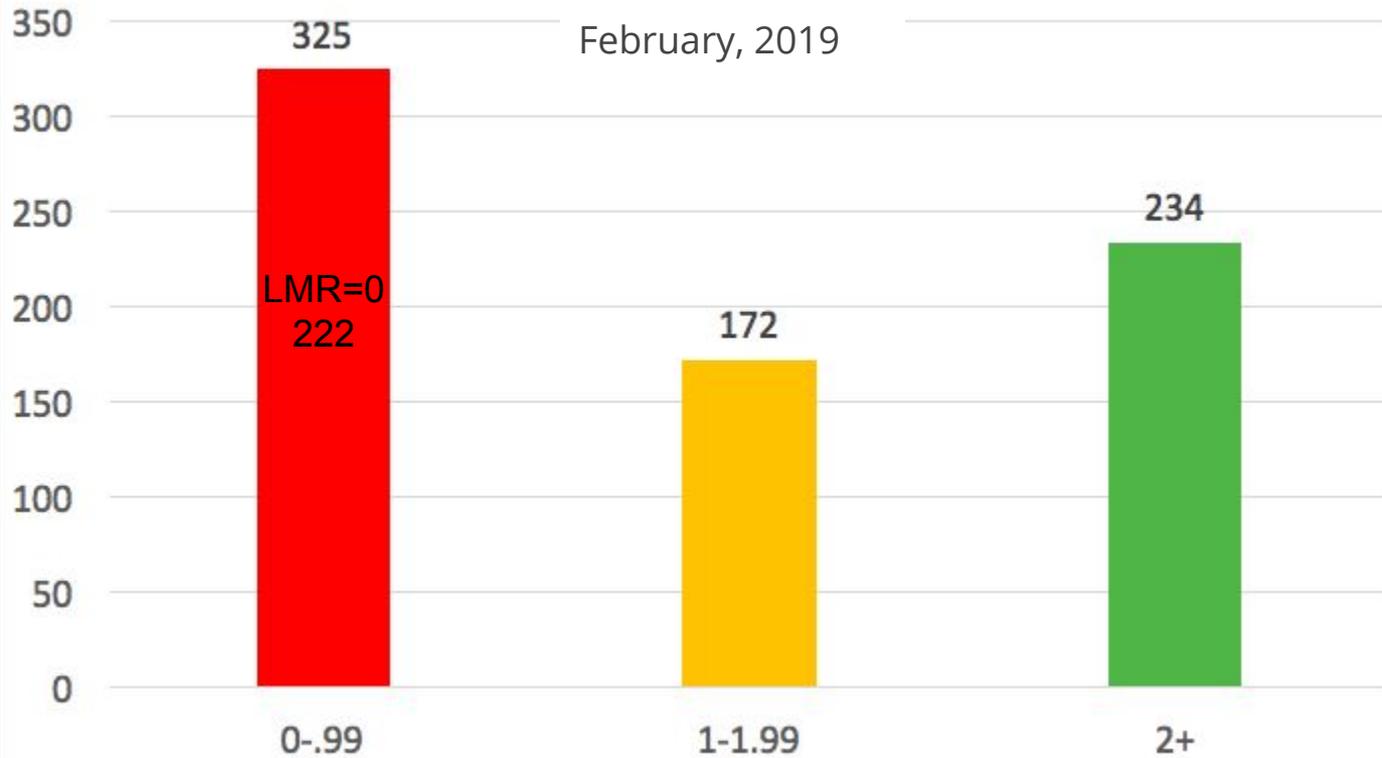
Industry Average LMR:
4.85



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Number of Licensees within LMR Ranges

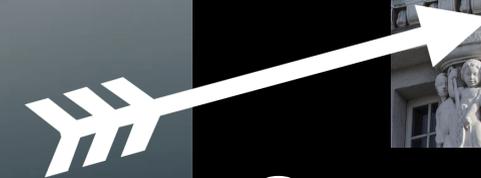
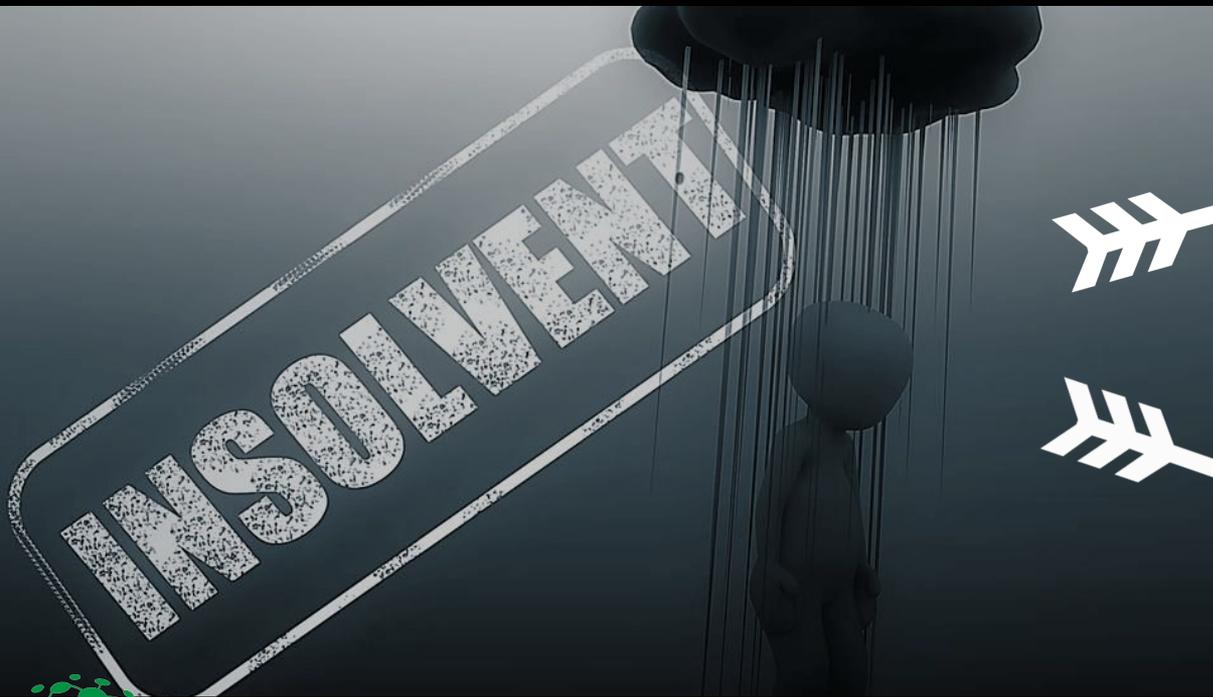
February, 2019



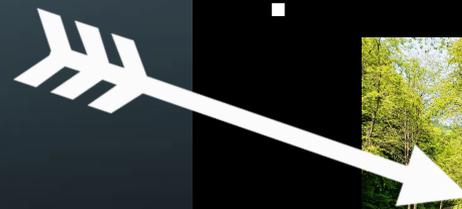
Liability Management Rating (LMR) Range



The Redwater Energy Supreme Court Case



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“Bankruptcy is not a licence to ignore rules, and insolvency professionals are bound by and must comply with valid provincial laws during bankruptcy,”

Chief Justice Richard Wagner

[Link to case in brief](#)



Implications of the Redwater Energy Decision

-
- Fewer liabilities sent to the Orphan Well Association
 - Eliminates the ability of companies to dump liabilities into a shell company and bankrupt it
 - Confirms that environmental obligations need to be honoured as part of bankruptcy proceedings.
 - Lenders may be more prudent in examining end of life obligations
-
- 

What does everyone think about this?

CAPP (Canadian Association of Petroleum Producers)

“CAPP believes that this judgment restores the balance between environmental obligations and creditor interests to that which existed for many years before this case.”

AER (Alberta Energy Regulator)

“We are pleased that the Supreme Court recognized the potential massive impacts that this issue could have caused – not just for the energy sector— but for many industries across the country.”

ATB Financial

"It was important for us to get clarity on what the interpretation of the law was, to ensure that we could have the right approach in balancing the environment and the economics,"

"ATB will continue to support the energy industry.”



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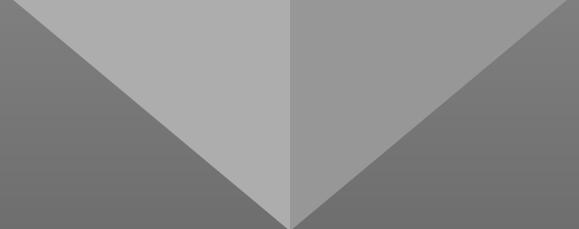
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What are the possible solutions to this problem?

FRAGILE
HANDLE WITH CARE



FRAGILE
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FRAGILE
HANDLE WITH CARE

Legislation And Regulation

Specified Enactment Direction 002



Application Submission Requirements and Guidance for Reclamation Certificates for Well Sites and Associated Facilities

February 2019

Timelines





Area Based Closure

Our mission is to
ReGenerate Alberta's
economy and put people
back to work by finding
the value in what's being
left behind by the oil and
gas industry



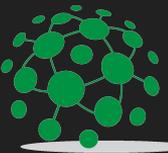


How can we create value?

from this:



to this:



Benefits for Alberta: Assuming solar installed on 10% of inactive leases

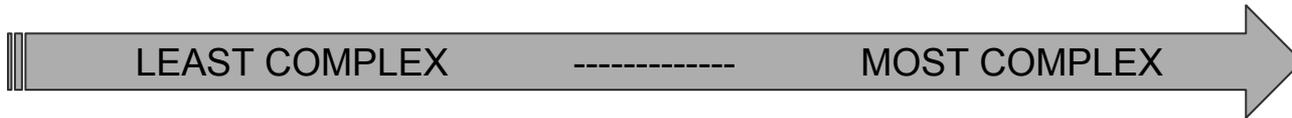


Alberta

Leased land converted to solar	40,000 acres
Installed solar generation	8,000 MW
Annual production capacity	10,400 GWh
Annual CO2 savings	5,824,000 mt
Annual revenue generated	832 M\$
Total investment (solar and abandonment)	14.3 B\$
Deferred reclamation expenses	200 M\$
Person-Years employment	71,900

No additional land removed from agricultural land base

Possible transitions for mature oil and gas infrastructure



Expected benefits from repurposing oil and gas infrastructure

Additional sources of revenue

Extend timeframe for reclamation obligations - increases remediation options. Bio-remediation etc.

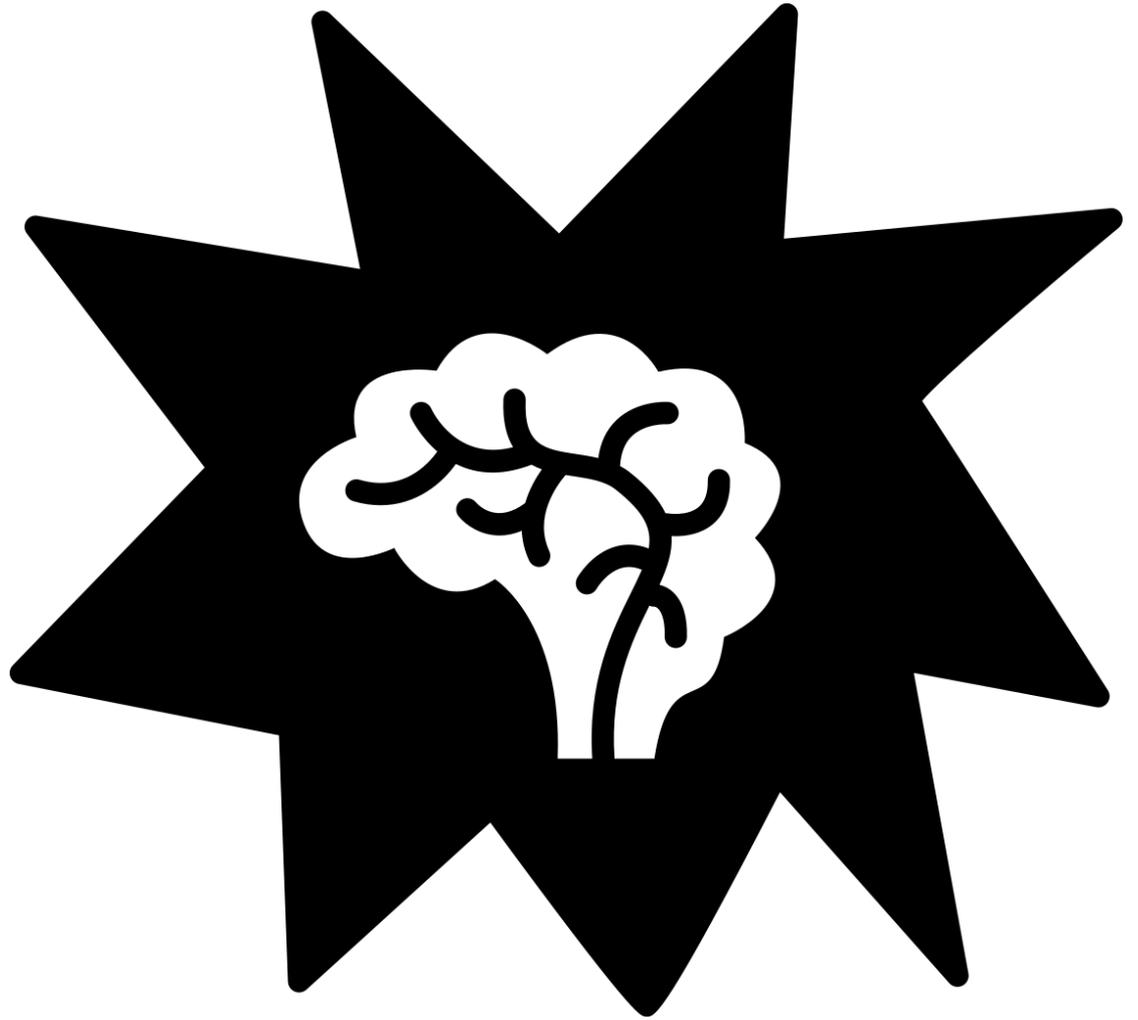
Reduces the amount of greenfield and agricultural land use for renewable energy projects

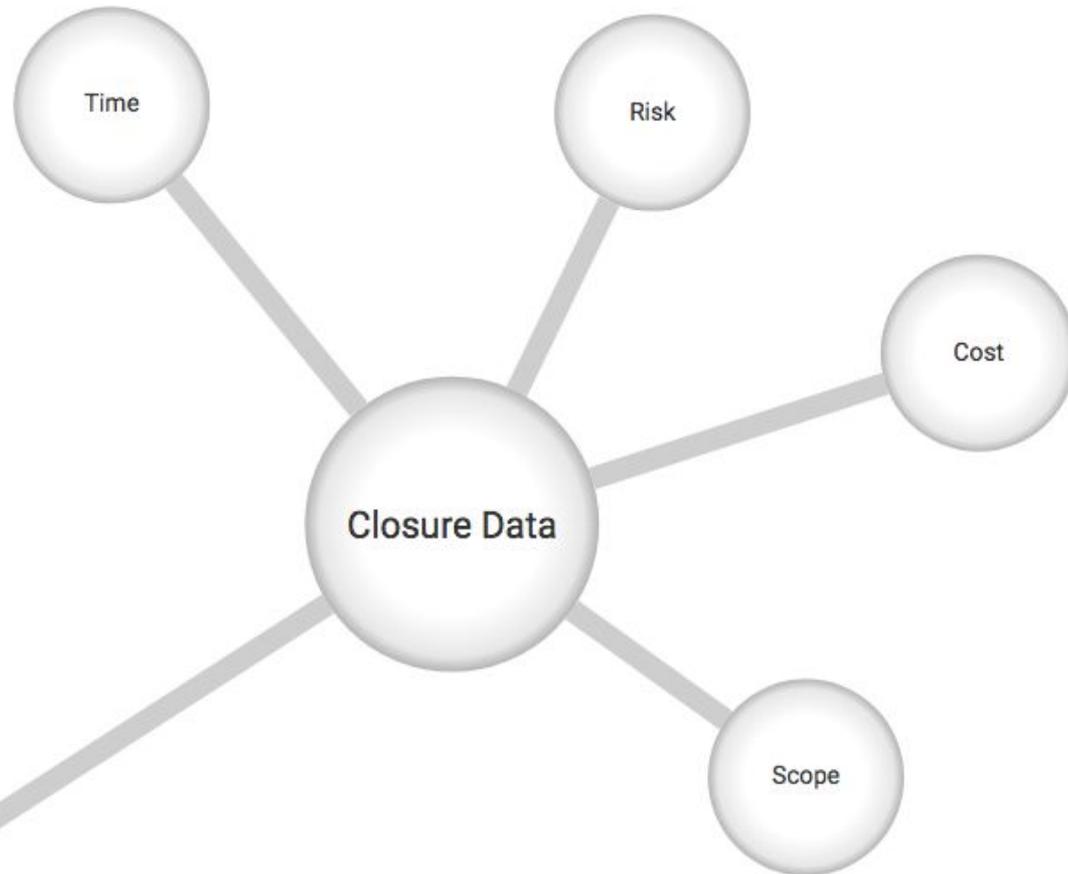
Engages and Empowers the community and landowners

Create forward looking plans at time of development.

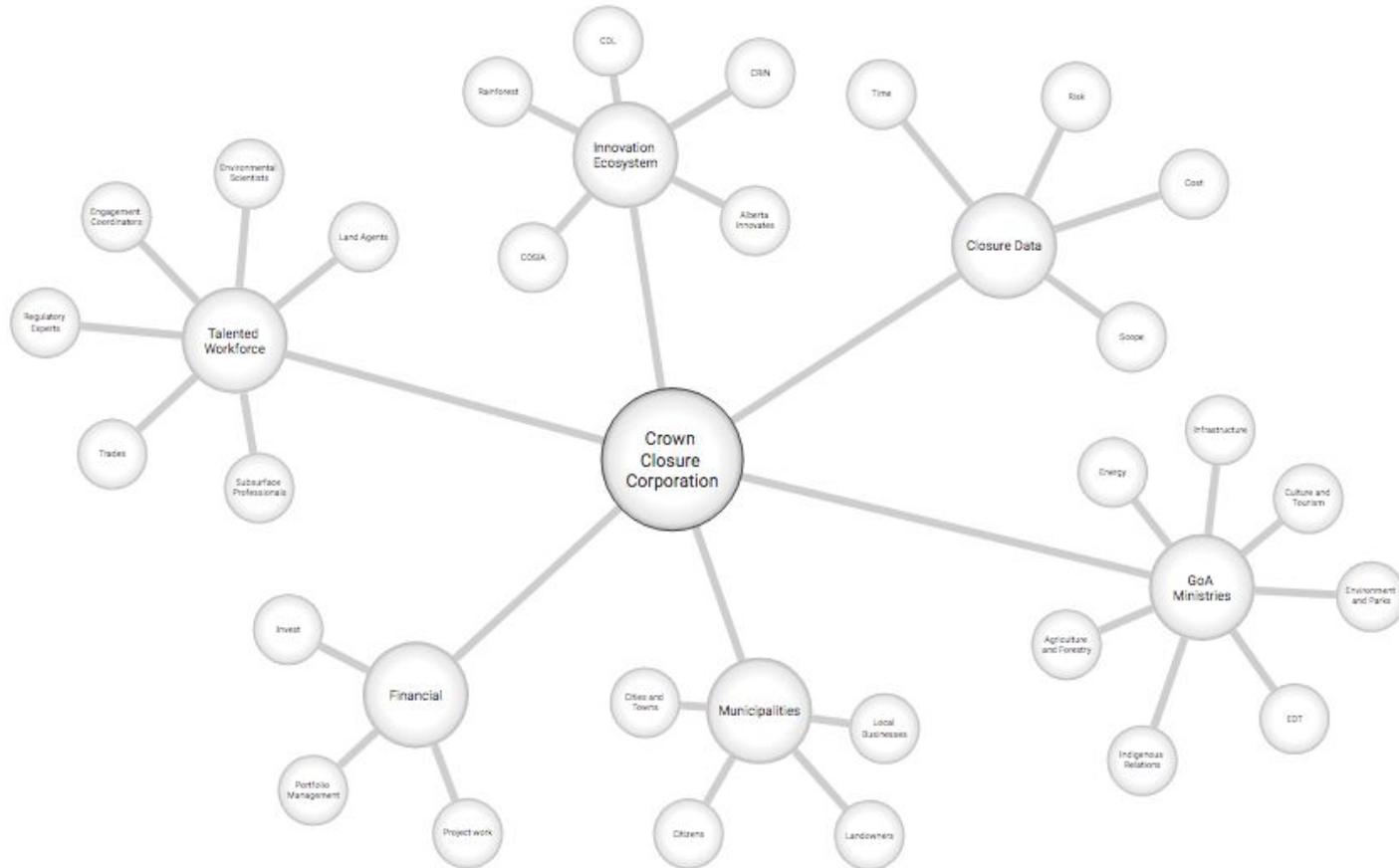


**A
BIG
IDEA**





Crown Closure Corporation

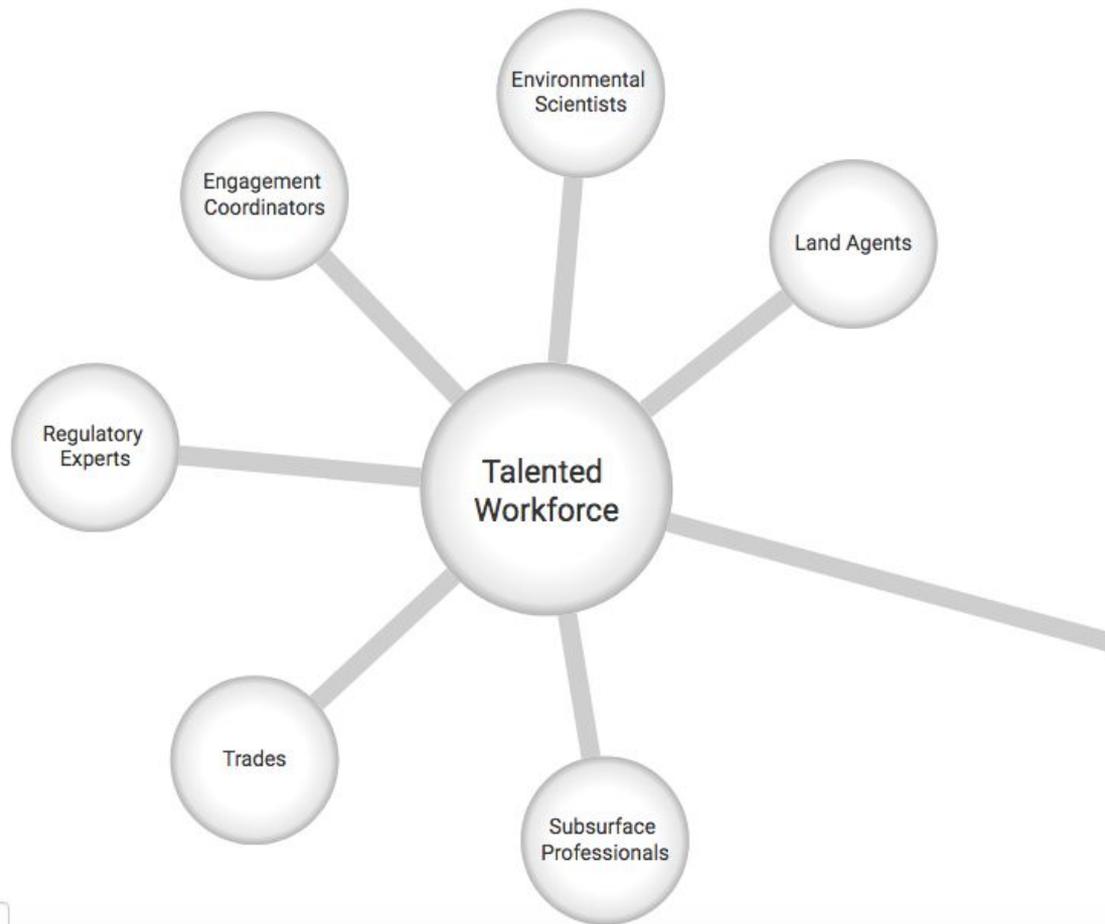


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technology from:

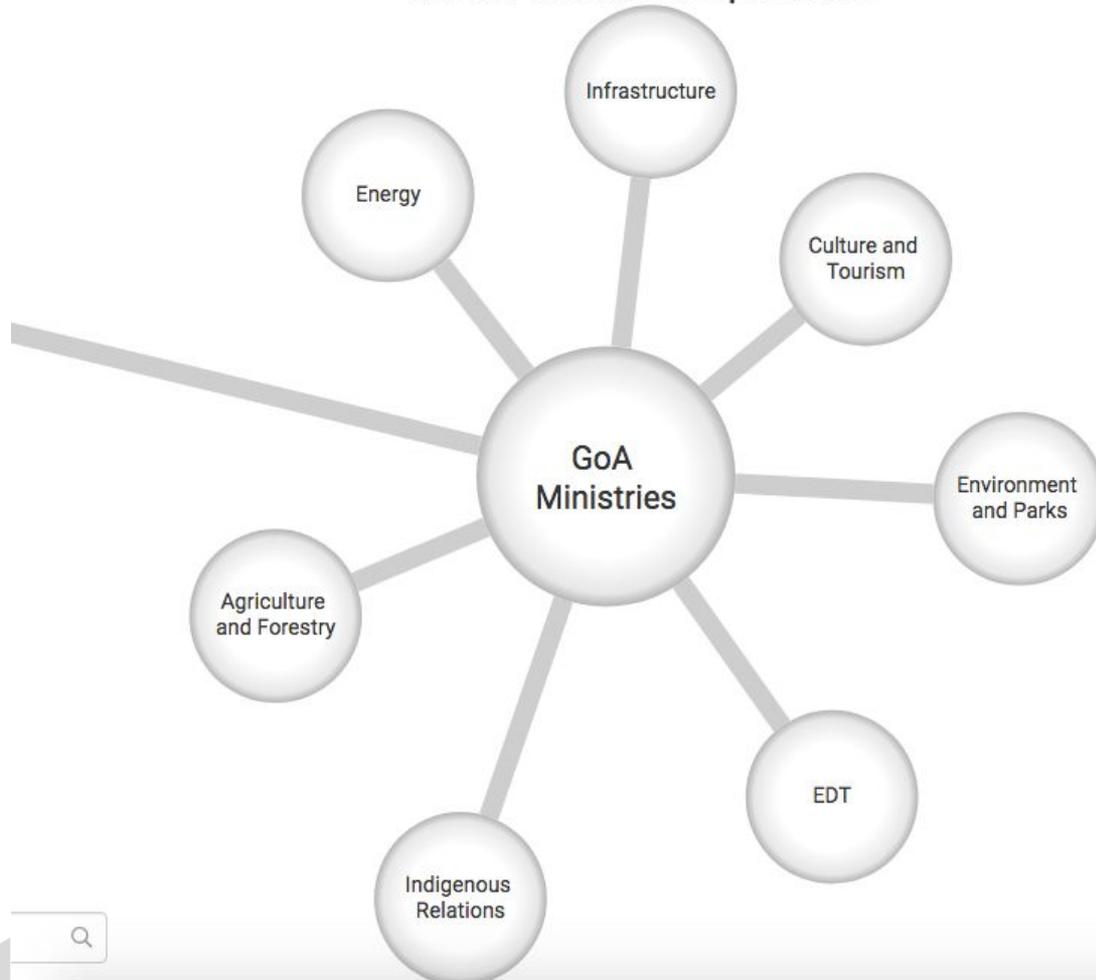




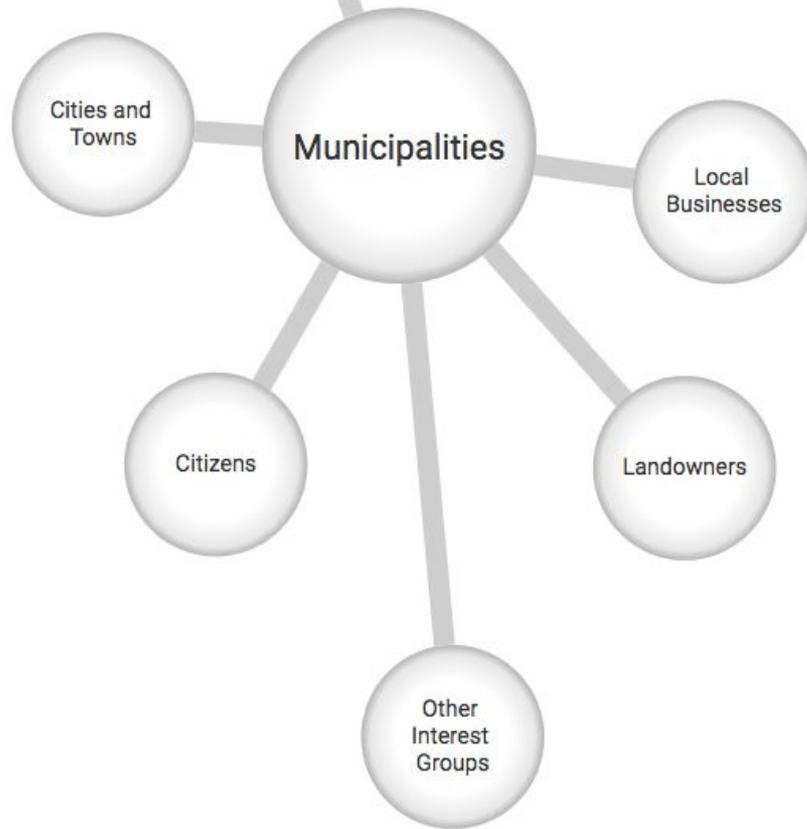
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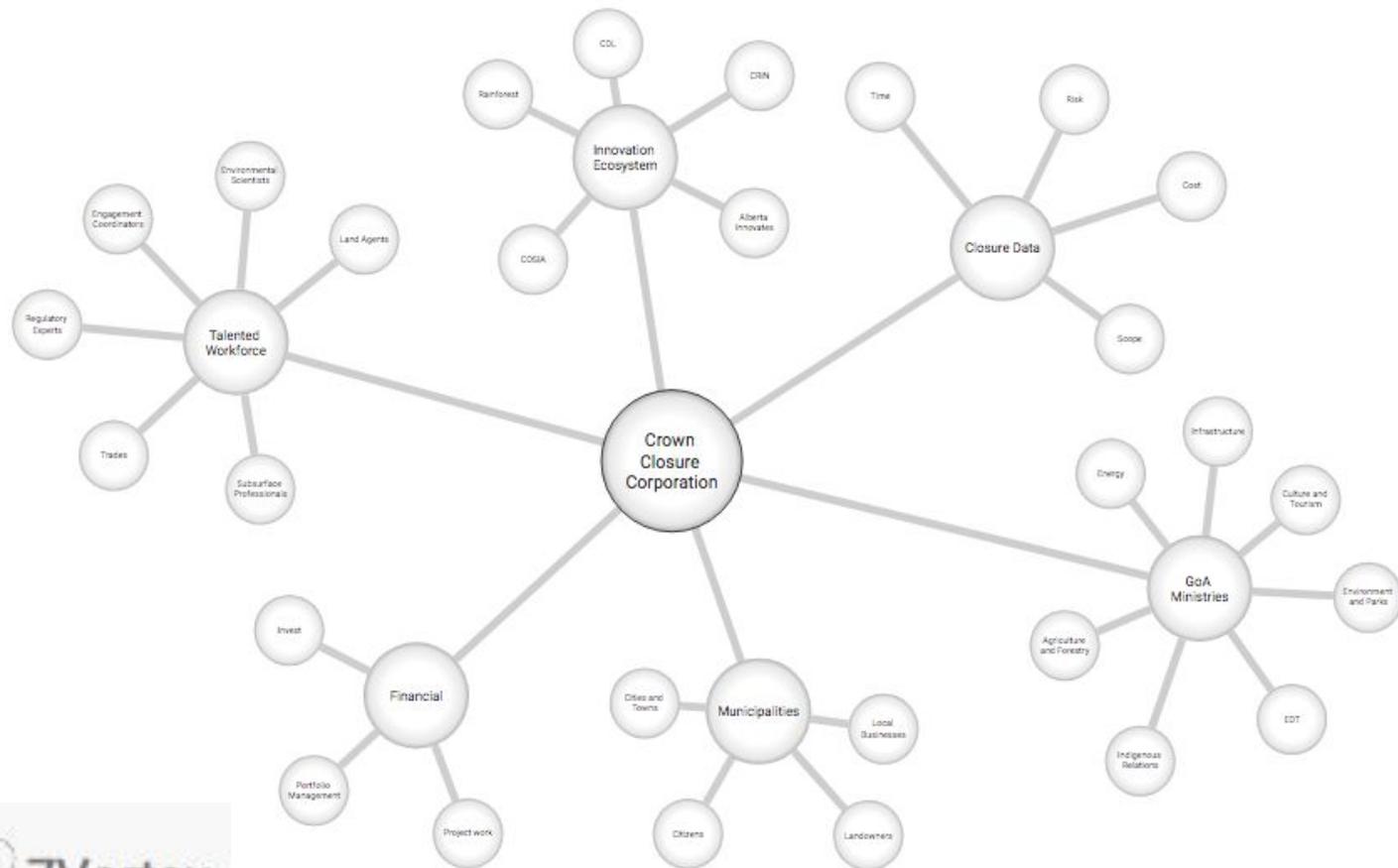
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Crown Closure Corporation



Crown Closure Corporation



Conversation

Juli Rohl

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DEFINITIONS

Active wells: wells that are currently producing oil or natural gas.

Inactive wells: wells that have not produced oil or natural gas in six to twelve months, depending on the type of well.

Suspended wells: wells on which operations have been inactive for more than six or twelve months, depending on the type of well.

Abandoned wells: wells that are plugged permanently by removing the tubing and filling the wellbore with concrete.

Orphaned wells: wells that no longer have an identifiable owner.

Reclaimed wells: well sites that are properly abandoned and the habitat around the well returned to its original land use capability.

Remediation: Cleaning up the impacts to soil or groundwater to an acceptable level.

Reclamation: Restoring the soil and vegetation to support the original land use capability of the site.