

# Responsible Environmental Management of Oil and Gas Activities in New Brunswick



# Overview of Natural Gas and Oil Industry in New Brunswick:



- First oil well in the province was drilled in Dover in 1859.
- 30 gas wells in the Sussex area
- 16 oil wells in Stoney Creek

# Stages of Gas Development

0

3 – 5 years

5 – 10 years

20+



Stage 1:  
Identification of  
Resource



Stage 2:  
Early Evaluation  
Drilling



Stage 3:  
Pilot Project  
Drilling



Stage 4:  
Pilot Production  
Testing

Stage 5:  
Commercial  
Development

Stage 6:  
Project  
Reclamation

SWN  
Resources Can

Corridor  
Resources

Contact  
Exploration



# Current Regulatory Framework

## Oil and Natural Gas

- *Oil and Natural Gas Act*
- *Crown Lands and Forests Act*
- ***Clean Environment Act*** ←
- *Clean Water Act*
- *Clean Air Act*
- *Community Planning Act*
- *Pipeline Act*
- *Highway Act*
- *Occupational Health and Safety Act*
- *Workplace Health, Safety and Compensation Commission Act*
- *Workers' Compensation Act*
- *Boiler and Pressure Vessel Act*
- *Emergency Measures Act*

Phased Environmental  
Impact Assessment  
(EIA) Regulation

# Phased Environmental Impact Assessment

- Primary tool to regulate industry activity
- Ability to implement necessary safeguards relative to the location and situation of drilling activity

# ***Responsible Environmental Management of Oil and Gas Activities in New Brunswick*** **Public Discussion Document**

- Exploration to abandonment
- Builds on existing regulations (not starting over)
- Development of the document:
  - New Brunswick Natural Gas Forum, June 23, 2011
  - Subject matter experts from within provincial government
  - Requirements from other North American jurisdictions
  - Reports, critiques, scientific studies, monitoring results and model standards (industry, academia, NGOs)

# 1.0 Geophysical (Seismic) Testing

- Enhanced set-backs
- Enhanced standards seismic test hole drilling



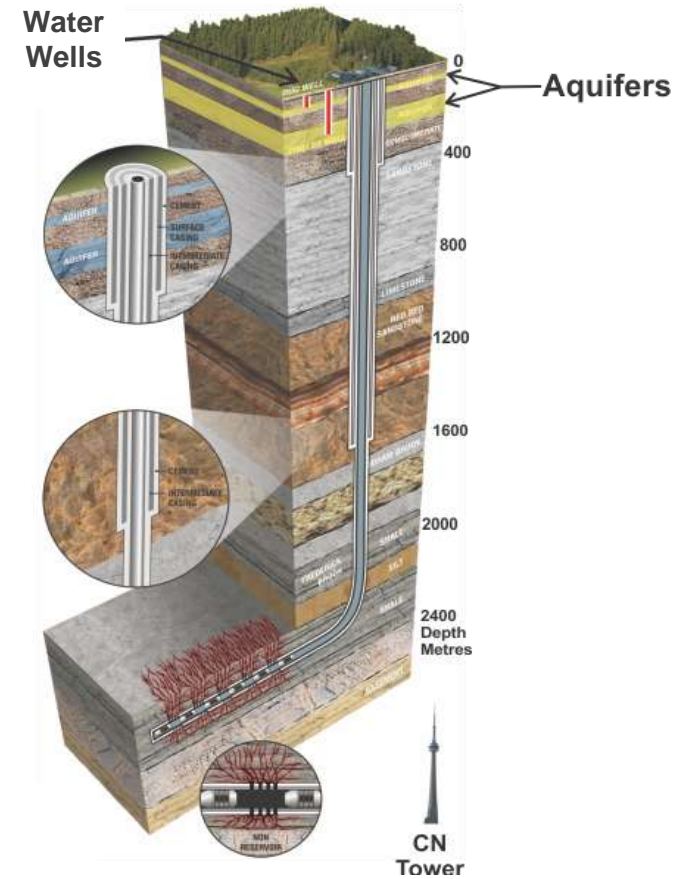
Vibroseis truck



Explosive charge

## 2.0 Well Bore Integrity

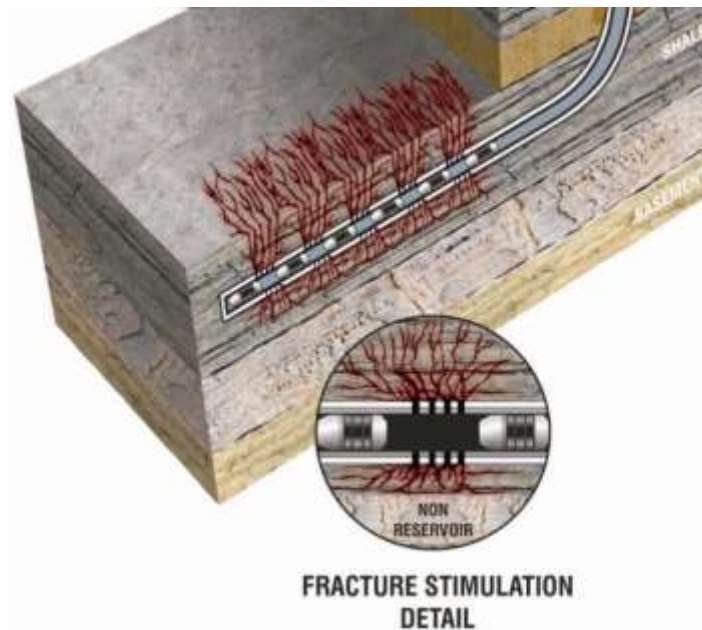
- Well casing design
- Well cementing standards
- Pressure testing and monitoring
- Blow-out prevention





## 3.0 Geological Containment

- Assess geological containment ability
- Analysis of geological formation response



## 4.0 Managing Wastes at Surface

- Preventing and containing leaks and spills
- Management and disposal of wastes



# 5.0 Monitoring to Protect Water Quality

- Water well monitoring
- Surface water monitoring
- Monitoring of oil and gas wells



## 6.0 Sustainable Use of Water

- Water recycling
- Hierarchy of preferred water sources
- Water use planning and reporting

# 7.0 Air Emissions

- Monitoring emissions
- Emission reduction plans



# 8.0 Public Safety and Emergency Planning

- Security plans
- Emergency response plans



# 9.0 Protecting Communities and the Environment

- Setbacks from natural and cultural features
- Noise mitigation and monitoring
- Haul route planning and road use



# 10.0 Reducing Financial Risks and Protecting Landowner Rights

- Water supply replacement or restoration
- Financial securities
- Land agent licensing





# 11.0 Sharing Information

- Access to information
- Public disclosure
- Notification radius

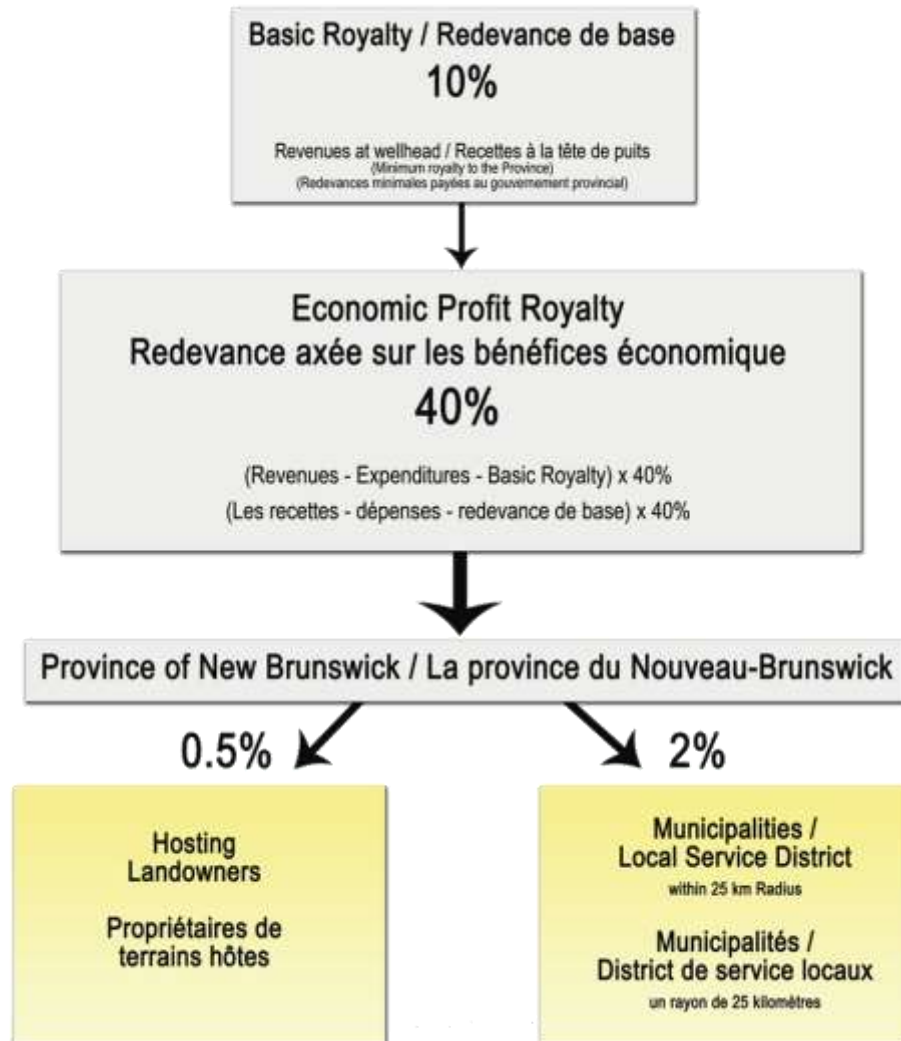


# 12.0 Maintaining an Effective Regulatory Framework

- Continuing to use the EIA Regulation
- Additional scientific information
- Continuous Improvement



# Royalty and Revenue Sharing



# Administrative Penalties

## Current Fines:

- \$140 to \$200,000

## Proposed Fines:

- \$50,000 to \$1,000,000

Contravention	Current Fine	Proposed Penalty
Contravention of the regulations	\$140 - \$640	Up to \$500,000
Failure to register an address	\$140 - \$1,100	Up to \$50,000
Exploration without a licence or lease	\$240 - \$5,200	Up to \$500,000
Drilling a well without a well licence	\$240 - \$5,200	Up to \$500,000
Entering on property without landowner agreement	\$240 - \$5,200	Up to \$500,000
Performing geophysical exploration without a licence	\$240 - \$5,200	Up to \$500,000
Failure to comply with an order under the Act	\$240 - \$5,200	Up to \$500,000
Interference with a mining or mineral claim	\$240 - \$5,200	Up to \$50,000
Proceeding without approval to process, store or dispose of natural gas or produced water	\$240 - \$5,200	Up to \$500,000
Failure to notify the Minister of the intention to commence work	\$240 - \$5,200	Up to \$500,000
Failure to obey the Minister	\$500 - \$200,000	Up to \$1,000,000

# Questions?

## Contact Information:

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