

# Environmental Assessment in Nova Scotia

<http://www.gov.ns.ca/nse/ea/>



# Nova Scotia Environment's Mandate

Nova Scotia Environment (NSE) is responsible for protecting the environment and human health and promoting sustainable development.

We are responsible for many aspects of everyday life, such as air quality, drinking water and solid waste management.

# EA Branch

- Management and administration of projects
  - Evaluations
  - Pre-registration
  - Registration
  - Follow-up



# EA in Nova Scotia

- Environmental assessment (EA) is a planning and decision-making tool used world-wide to promote sustainable development.
- Nova Scotia's EA process is defined in Part IV of the *Environment Act* and detailed in *Environmental Assessment Regulations* and *Environmental Assessment Board Regulations*.



# Benefits of EA

- Promotes sustainable development – EA helps balance environmental protection with economic development
- Promotes better project planning – EA staff help to identify and address environmental issues early in the process
- Helps build trust and confidence in developments – formal opportunity for the public to participate in the process
- Helps educate industry on how their developments affect the environment



# EA Branch Responsibilities

- The Environmental Assessment Branch is responsible for coordinating the EA Process established under the *Environment Act* and *Environmental Assessment Regulations*.
- The Branch ensures that all stakeholders are provided an opportunity to comment on projects, and that a Report and Recommendations is provided to the Minister within time frames established in the regulations.

# What Projects Need an EA ?

- Developments required to undergo environmental assessments in Nova Scotia are divided into two classes of “undertakings”.
- Schedule “A” of the *Environmental Assessment Regulations* lists undertakings subject to the EA process
- Can include modifications and rehabilitation



# Undertakings

- Class I undertakings (smaller scale):
  - Include developments such as mines, quarries, some developments in wetlands, and waste dangerous goods facilities.
- Class II undertakings (larger scale):
  - Include developments such as solid waste incinerators, petrochemical facilities, and pulp and paper plants





# Class I & II Process:

Process basically follows three stages:

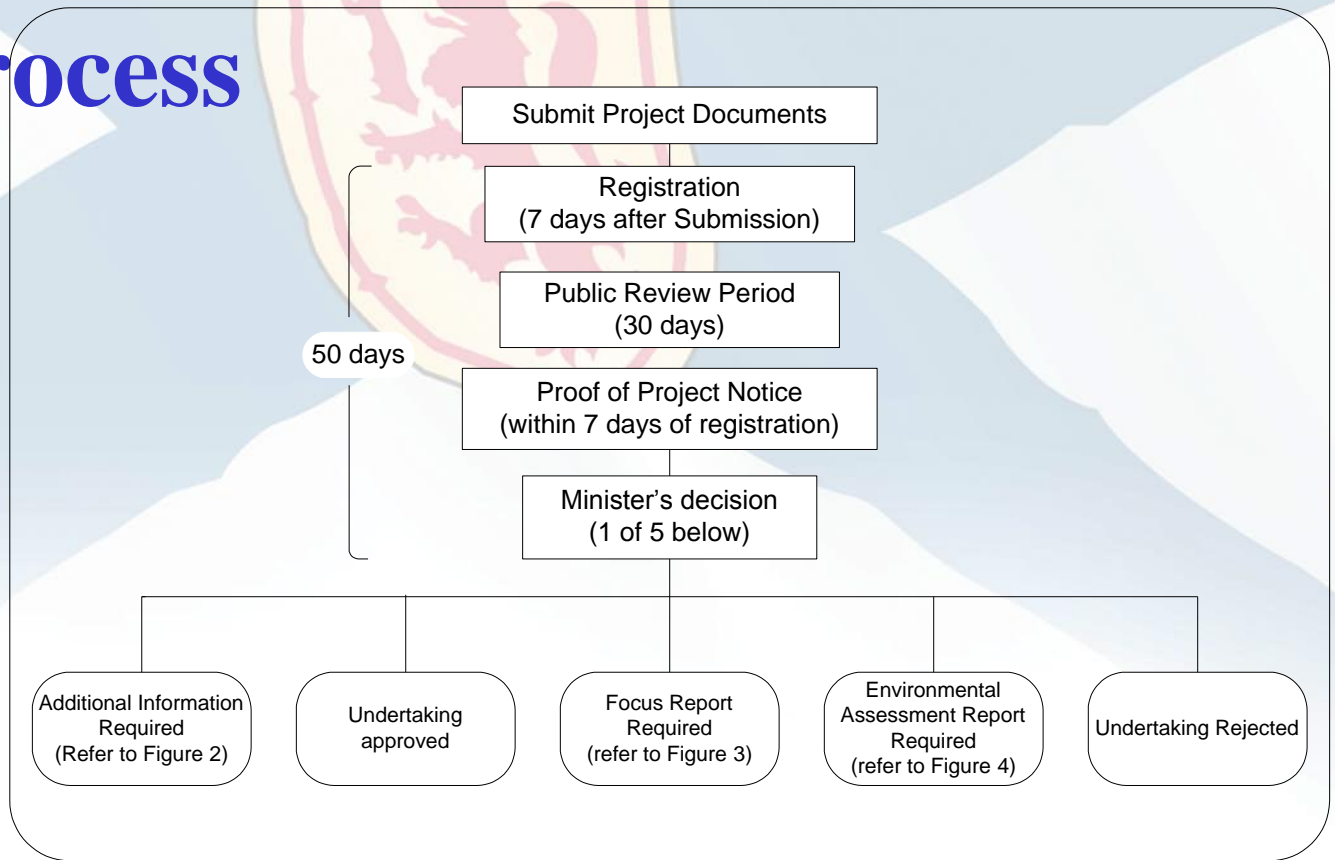
- Pre-registration is project activity that takes place prior to Registration (ie. Scoping meetings, draft review, etc.)
- Registration is the formal legislated process according to the EA Regulations
- Follow-up occurs immediately following the Minister's Decision and then annually

# Class I & II Process:

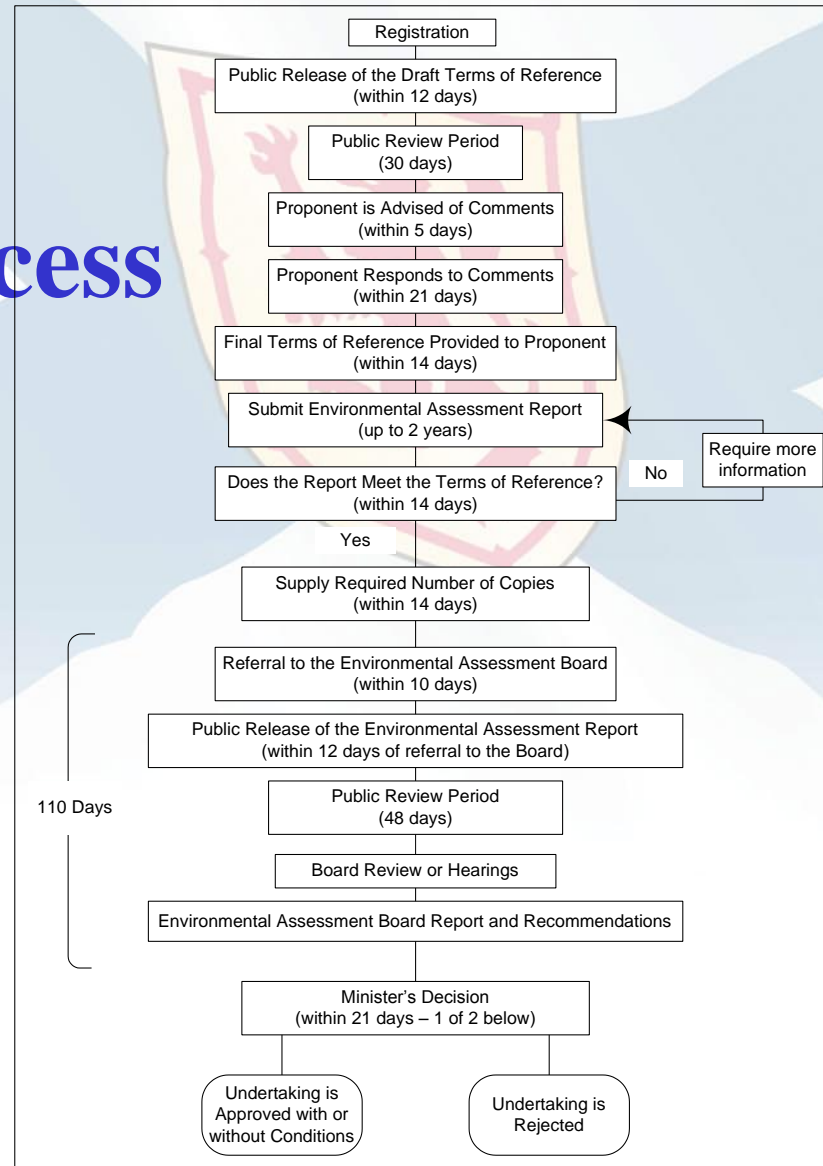
- Class I EA – 50 days
- Class II EA ~ 275 days
- Both include formal opportunities for public input
- Both require the Minister to make a decision on the environmental acceptability of the proposed undertaking.



# Class I Process



# Class 2 Process



# Key Public Input Opportunities

- A 30 day review period for all Class 1 registrations, additional information and focus report submissions.
- Participation in proponent lead consultation (open houses, web based, etc)
- Community Liaison Committee

# Basic Components of an EA

- A description of the project and its processes
- A description of the existing environment where the project will go (identify Valued Environmental Components “VECs”)
- A prediction of effects of the project on the environment
- Plans to avoid or “mitigate” effects on the environment

# What gets considered in an EA?

- VECs such as.....
  - ✓ Atmospheric environment
  - ✓ Surface water and ground water
  - ✓ Wildlife and habitat
  - ✓ Wetlands
  - ✓ Cultural and heritage resources
  - ✓ Socioeconomic conditions

# Minister's Decision Factors

- Location of the undertaking / sensitivity of surroundings
- Concerns expressed by public and aboriginal people and steps taken to address those concerns
- Whether environmental baseline information is sufficient to predict environmental effects
- Potential adverse or environmental effects
- Project schedules
- Planned/existing land use or other undertakings in the area
- Whether compliance with licenses, certificates, permits, approvals required by law will mitigate the environmental effects
- Such other information as the minister may require.



# What gets considered in an EA?

- “Adverse Effect” means an effect that impairs or damages the environment, including an adverse effect respecting the health of humans or the reasonable enjoyment of life or property
- “Environmental Effect” means, in respect of an undertaking,
  - (i) any change, whether negative or positive, that the undertaking may cause in the environment, including any effect on socio-economic conditions, on environmental health, physical and cultural heritage or on any structure, site or thing including those of historical, archaeological, paleontological or architectural significance, and
  - (ii) any change to the undertaking that may be caused by the environment, whether the change occurs inside or outside the Province;

# Is An Effect “Significant” ?

- “Significant” means, with respect to an environmental effect, an adverse effect that occurs or would occur as a result of any of the following:
  - (i) The magnitude of the effect,
  - (ii) The geographic extent of the effect,
  - (iii) The duration of the effect,
  - (iv) The frequency of the effect,
  - (v) The degree of reversibility of the effect,
  - (vi) The possibility of occurrence of the effect;

# Brief History of Wind Energy in Nova Scotia

- Regulatory responsibilities for wind energy (>2MW) introduced in 2004 (EA Reg amendments)
- First wind energy EA – Pubnico Point 2005
- 17 wind EAs completed since 2005 (>400 MW)
- Compliance intervention required on two projects (Pubnico and Lingan)

# Key Issues

- Health related impacts
  - Noise and infrasound
  - Shadow flicker
- Visual impact
  - Effects on property value
  - Tourism
- Aboriginal Interests / concerns
- Wildlife and habitat
  - Bird and bats
  - Landscape connectivity / optimization

# Current Practice on Issues

- Health
  - Health Canada advises on all wind energy EAs (45dBA)
  - Noise and shadow flicker modeling, and monitoring
  - EA terms and conditions
- Visual Impact
  - ERDT Reviews
  - Municipal bylaws
  - Visual impact assessments
  - EA terms and conditions
- Aboriginal
  - MEKS; partnering opportunities
- Wildlife
  - Early dialogue and planning with DNR

# Setbacks

- Appropriate setbacks from receptors continues to be a challenge.
- Concerns are largely based on health effects, visual impact and potential property value impacts.
- A number of municipalities have established setbacks in bylaws. Not health based, but rather about separating incompatible land use (visual, property value).
- The province has no formal setback requirements. Through the EA process proponents are recommended to meet 40 dBA at receptors.
- Separation distances to prevent health impacts are the main challenge moving forward.

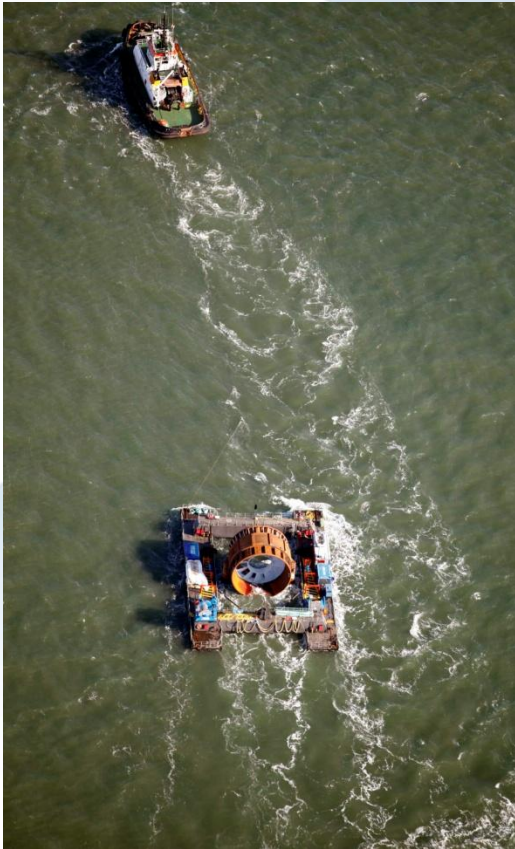
The coat of arms of Nova Scotia, featuring a red lion passant guardant on a gold shield, is centered in the upper half of the slide. The background is a stylized, light blue and white map of Nova Scotia.

# Project Examples

# Tidal Demonstration Project







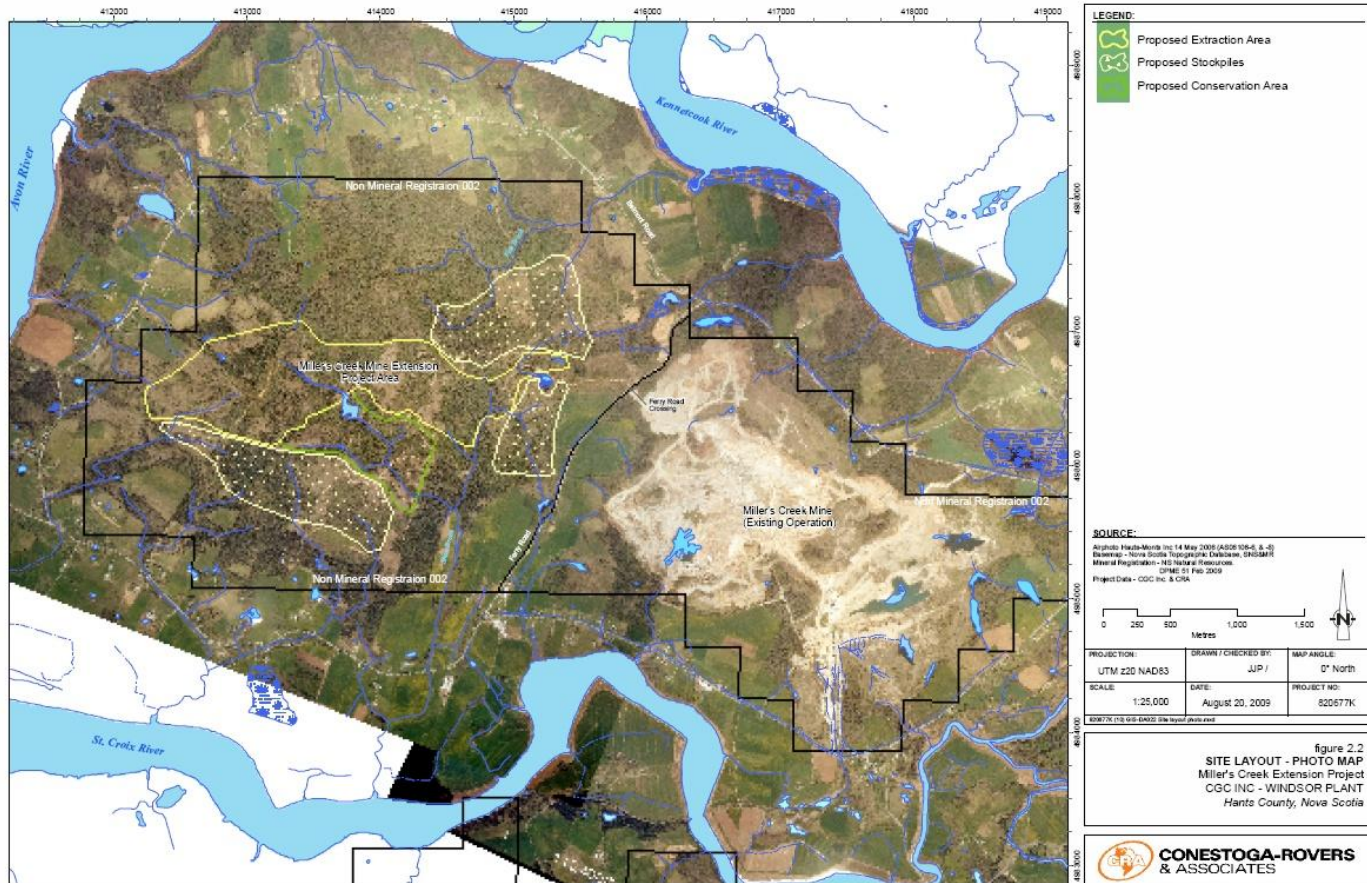
# Issues / Challenges

- The Minas Passage is an extremely difficult environment in which to conduct either baseline or effects monitoring.
- Concerns were raised by the fishing community and others about potential impacts on marine life.
- Jurisdictional overlap.

# Response

- Establish a multi-disciplinary Environmental Monitoring Advisory Committee
- Establish a comprehensive monitoring and reporting program
- Bonding to provide for removal if adverse effects are determined

# Miller's Creek Mine Extension CGC Inc. – Fundy Gypsum



# Issues/Challenges:

- Karst topography
  - Impacts to ground water and surface water
  - Eco-system uniqueness including a diversity of rare plants and bat hibernacula
- Loss of Wetlands (13 of 18): proposed wetland banking, maintaining hydrologic flows, and monitoring

# Response

- Project limited to less than one half of proposed size
- Legal protection of a 46 Ha conservation area
- A long term research and monitoring program for species at risk
- Extensive water monitoring over the life of the project

# Digby Wind Project







# Issues/Challenges:

- Concerns over health related impacts including noise, shadow flicker effects
- Issues regarding turbine locations and potential impacts to wildlife habitat connectivity
- Concerns with bird / bat impacts

# Response

- 3 Turbines not permitted in proposed locations. Approved relocation to address habitat connectivity and noise risks.
- Establish bird and bat monitoring and reporting. Report annually on mortalities.

# EA Resources

On-line Information ([www.gov.ns.ca/nse/ea](http://www.gov.ns.ca/nse/ea))

- *Citizens Guide to Environmental Assessment*
- Copies of legislation and regulations
- Copies of all EA Registration Documents filed since 2000

## NSE Library

- Hard copies of environmental assessment documents
- Copies of all public and government reviewer comments submitted during project reviews

