# Leveraging "Non-Traditional" Strategic Environmental Assessment to Enhance Dialogue and Decision-making for a Low Carbon Future

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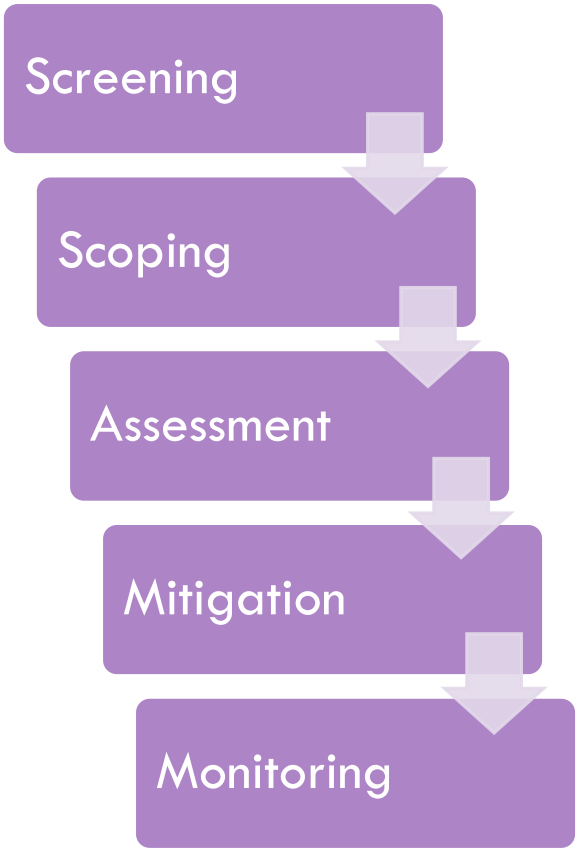
# ORIGINALLY . . .




Strategic Environmental Assessment was defined as:

> *"…the systematic and comprehensive process of evaluating … the environmental effects of a policy, plan or program and its alternatives"* (Therivel and Partidario, 1996)

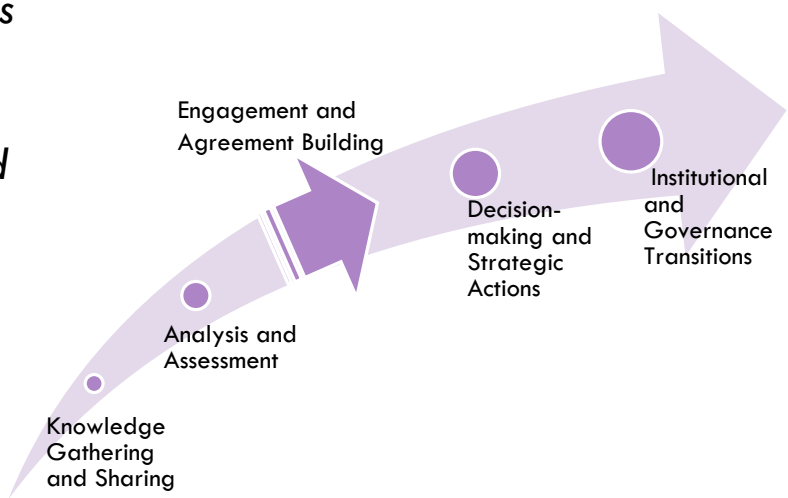
> *"…a process designed to systematically assess the potential environmental effects, including cumulative effects, of alternative strategic initiatives for a particularly region…and in doing so inform the development of policies, plans or programs."* (CCME, 2009)

# MORE RECENTLY …

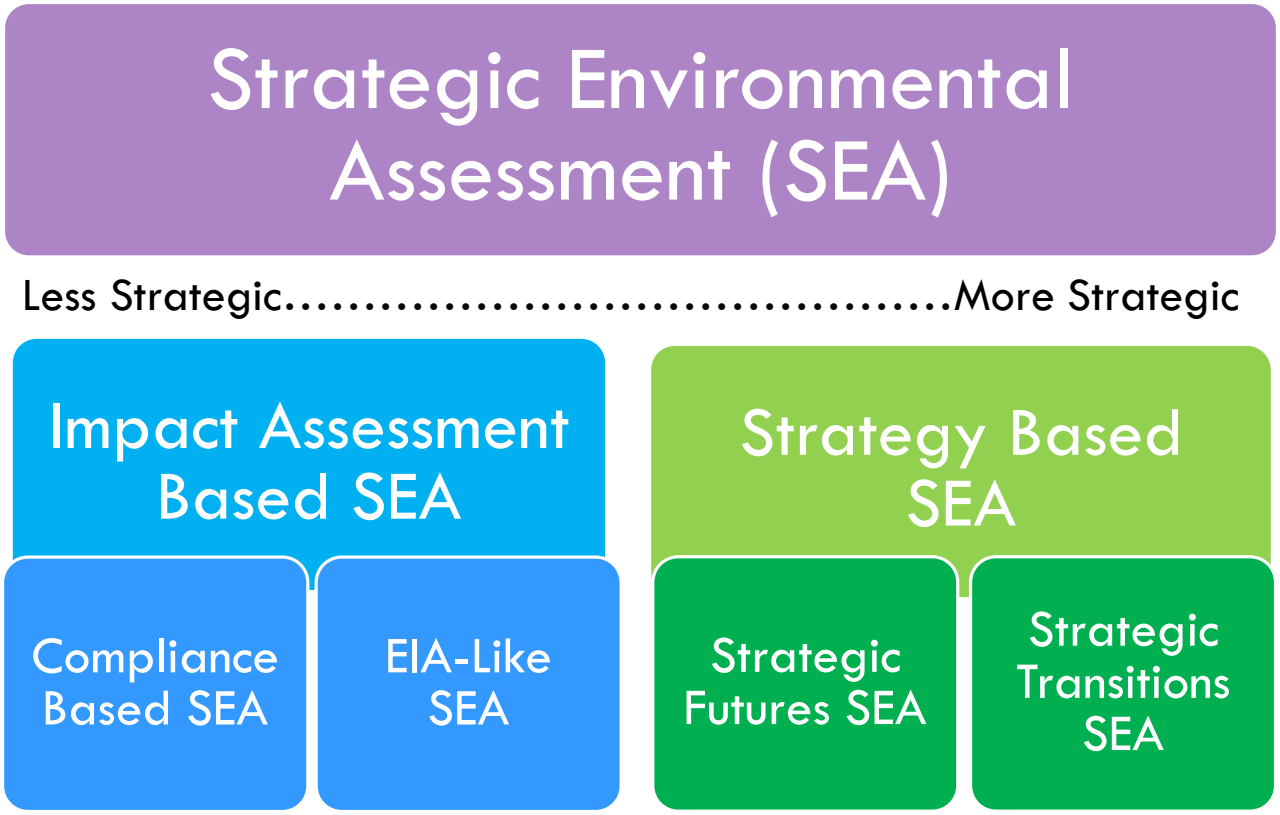
Strategic Environmental Assessment is being seen as a way:

> *"…to create a development context towards sustainability, by integrating environmental and sustainability issues in decision-making, assessing strategic development options and issuing guidelines to assist implementation"* (Partidario, M.R., 2012)

*"…to provide for a better understanding of the complex institutional arena and governance conditions … the creation and implementation of strategic actions …facilitates strategic transitions towards more sustainable futures."* (Noble and Nwanekezie, 2016)



# TYPES OF STRATEGIC ENVIRONMENTAL ASSESSMENTS




Noble, B., Nwanekezie, K., Conceptualizing Strategic Environmental Assessment: Principles, Approaches and Research Directions. Environmental Impact Assessment Review (2016), http://10.1016/j.eiar.2016.03.005

# IMPACT ASSESSMENT BASED SEA

| Type of SEA | Key Features | Canadian Examples |
|---|---|---|
| Compliance Based | • Focuses on whether, to what extent a proposal / strategic initiative is in compliance with or supports existing objectives or commitments | • Government of Canada's Clean Transportation initiatives (2010)<br>• The C-NLOPB SEAs for offshore oil and gas exploration activity (2010-present)<br>• Government of Canada's Low Carbon Economy Challenge (2018) |
| EIA-like | • Provides information (usually a report) about impacts to decision-makers and follows standard EIA process (i.e., screening, scoping, assessment, mitigation, monitoring) | • Tidal Energy Generation Development in Bay of Fundy (2007-2008)<br>• Oil and gas development in Baffin Bay and Davis Strait (2017-2019) |

# STRATEGY BASED SEA

| Type of SEA | Key Features | Canadian Examples |
|---|---|---|
| Strategic Futures | • A means to shape or formulate strategic initiatives by exploring alternatives towards achieving desired outcomes, accounting for risks and opportunities | • Ontario's Independent Electricity System Operator's Planning Outlook and Long-Term Energy Plan (2017)<br>• Beaufort Regional Strategic Environmental Assessment (2017-Present) |
| Strategic Transitions | • Focused on the institutional environment and the conditions that enable or constrain that success of a strategic initiative | • **Wood Buffalo National Park SEA (2017- 2019)** |

# WOOD BUFFALO NATIONAL PARK SEA CONTEXT

**Petition submitted to World Heritage Committee**
(December 2014)


Requested inclusion of WBNP on List of World Heritage in Danger

**World Heritage Committee Decision 39COM7B.18**
(July 2015)

***Key requests made of Canada in decisions:***

1. Invite a IUCN/WHC Reactive Monitoring Mission (RMM) to the site
2. Undertake a Strategic Environmental Assessment (SEA)

***Response:***

i) RMM visited WBNP, Sept 26 - Oct 4, 2016.
ii) RMM report issued March 2017

Strategic Environmental Assessment (SEA) report submitted May 2018.

**World Heritage Committee Decision 41COM7B.2**
(July 2017)

**By December 1st, 2018:***

Develop an Action Plan:
1. Meaningfully involve Indigenous groups
2. Be coherent with relevant planning schemes.
3. Reflect SEA results.
4. Address RMM recommendations

*Deadline later extended to February 1, 2019.

***Response:***

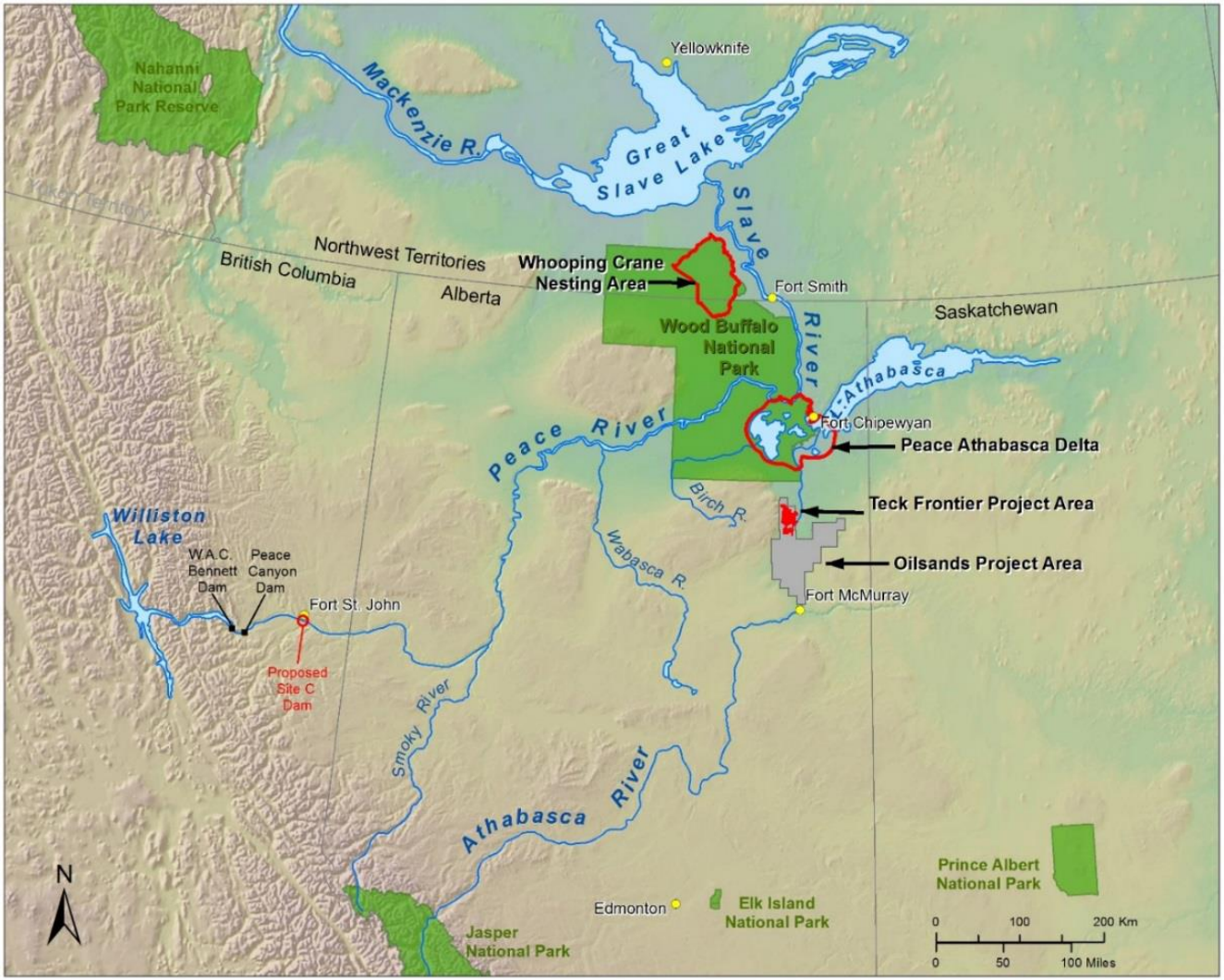
Action Plan submitted February 1st, 2019

Action Plan implementation underway

**World Heritage Committee Decision 43 COM 7B.15**
(July 2019)

1. Implement adequately funded Action Plan in timely manner.
2. Ensure SEA recommendations considered in future EIAs.
3. Conduct a systematic risk assessment of tailings ponds.
4. Submit updated State of Conservation report by 1 December 2020.

# WOOD BUFFALO NATIONAL PARK



# WOOD BUFFALO NATIONAL PARK

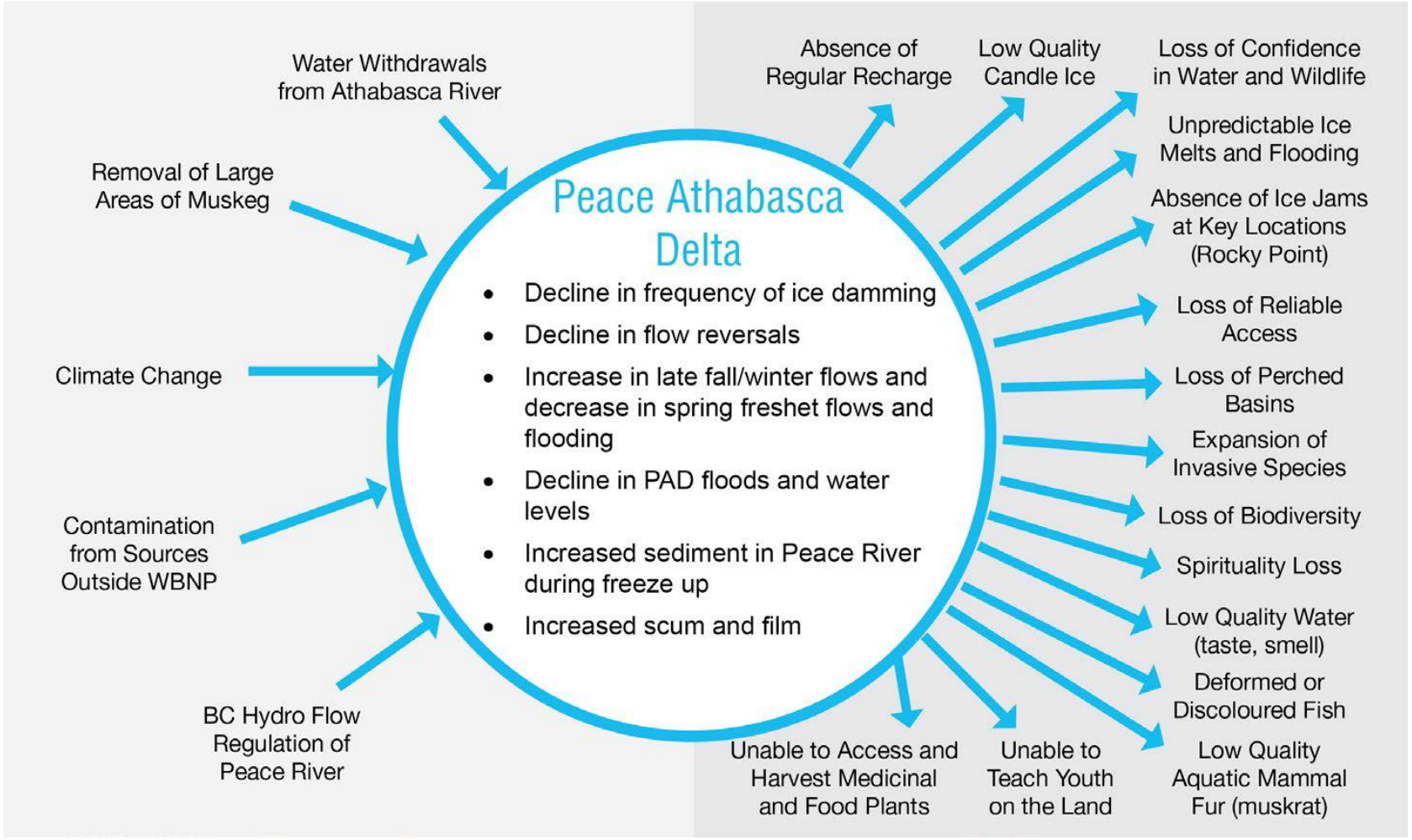
# WOOD BUFFALO NATIONAL PARK SEA KEYS TO SUCCESS

- ✓ Involved strategic thinking, dialogue, decision-making, action planning and Indigenous participation.
- ✓ The SEA was a **scenario-based evaluation of cumulative effects** to the Peace-Athabasca Delta (PAD) from a variety of stressors to the WBNP and climate change.
- ✓ The SEA was aimed at achieving both short-term and long-term **desired outcomes** for WBNP, identifying gaps in knowledge and areas for future research and attention.
- ✓ The SEA process recognized that changes in the PAD are multi-faceted and solutions will need to be **multi-jurisdictional, cross-cultural, adaptive and both short and long term in nature.**

# WOOD BUFFALO NATIONAL PARK SEA KEYS TO SUCCESS

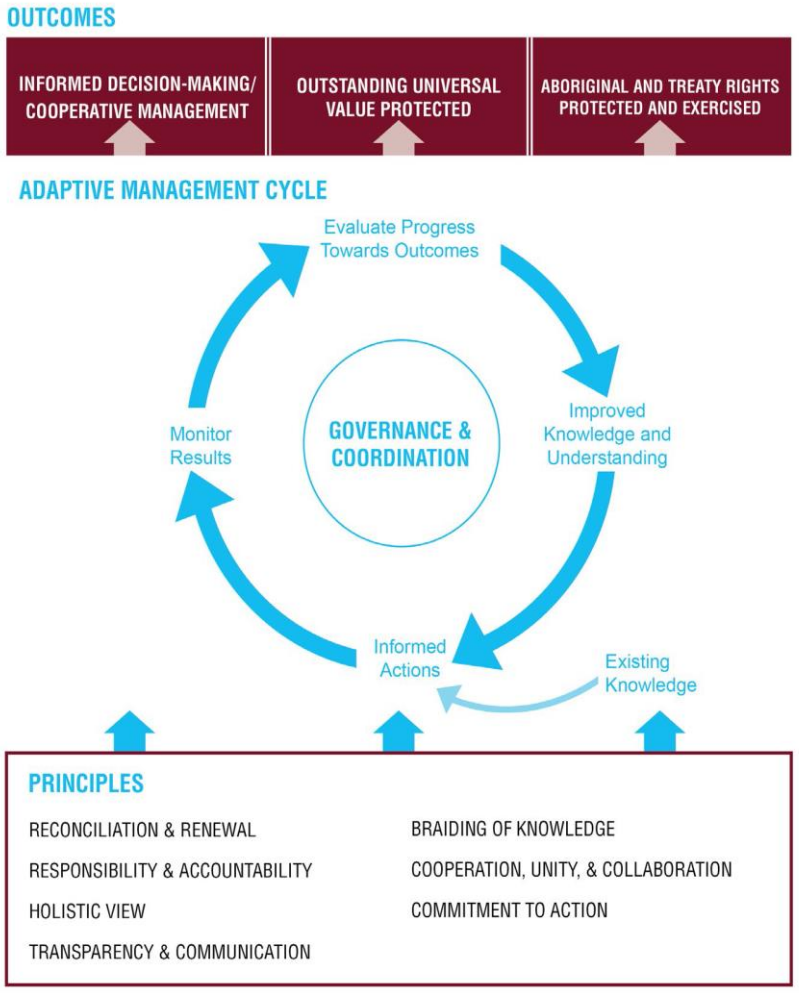
- ✓ The SEA was not a stand-alone process or one product, but more of an **"intervention" into a complex governance structure** – changing the "status quo" and decision-making culture.
- ✓ THE SEA collected and categorized as much relevant scientific data and Indigenous Knowledge as possible, presented opposing views in the SEA where they occurred.
- ✓ The **Mikisew Cree** contributed directly to the SEA and provided an overall review of the report before it was issued.
- ✓ The SEA was followed by an **Action Plan** that is currently being implemented.
- ✓ The SEA and Action Plan involved all surrounding Indigenous groups, key Federal Departments, Provinces of Alberta and BC, Government of NWT, industry, scientists, academics and consultants.

# CUMULATIVE EFFECTS ANALYSIS AND OUTCOMES



# ACTION PLAN THEMES

- Strengthening Indigenous Partnerships with WBNP (6*)
- Environmental Assessments (12)
- Conservation Area Connectivity (19)
- Tailings Ponds Risk Assessment / Oil Sands Management and Monitoring (10)
- Environmental Flows / Hydrology in PAD (75)
- Monitoring and Science (9)
- Wildlife and Habitat Conservation (11)




* Number of Actions

# POTENTIAL APPLICATION OF "NON-TRADITIONAL" OR STRATEGY BASED SEA TO ACHIEVE A LOW CARBON FUTURE

Strategy-based SEA can be very useful when applied to a vast number of overarching energy issues currently being discussed in Canada and world wide.

How SEA could help the following three Canadian based issues are discussed in more detail.

1. National Energy Corridor
2. Utilizing Natural Gas as a "Bridging Fuel" and Transitioning of Coal workers and Communities
3. Towards a Net Zero Emissions Economy in Canada

# NATIONAL UTILITY CORRIDOR

The establishment of permissible corridors: defined multi-modal rights-of-way across Canada with an accompanying regulatory and governance structure to facilitate private and public sector infrastructure investments.

**Intended to provide:**

- forward, long-term solutions to geographic, political and economic challenges,
- opportunities for growth and diversification through access to international markets,
- reducing interregional trade barriers,
- enhancing Indigenous and northern development opportunities and
- supporting northern security objectives.

- Electricity Transmission
- Telecommunications
- Rail
- Road
- Pipelines

https://www.cae-acg.ca/wp-content/uploads/private/2018/Mansell_CAE_2018.pdf

# NATIONAL UTILITY CORRIDOR: HOW A STRATEGY-BASED SEA CAN HELP

## Environmental and Social Outcomes

- Assess cumulative effects in a regional context for various routing options, corridor uses, and development scenarios aimed at selecting a preferred corridor.
- Identify and fill knowledge gaps in baseline data
- Establish consistent effects management standards across jurisdictions
- Assess and manage socio-economic impacts and benefits on a regional basis. Work towards regional equity
- Establish processes for Project-specific EAs and permitting to make later approvals simpler and faster.

# NATIONAL UTILITY CORRIDOR: HOW A STRATEGY-BASED SEA CAN HELP

## Macro-economic Outcomes

- Establish both public and private sector business cases and evaluate financing options
- Assess the overall impact on Canadian economy/ regional equity
- Assess and manage effects Impacts on various industrial sectors

## Governance and Institutional Transitions

- Establish land ownership and corridor governance structure, with Indigenous participation
- Identify Federal, Provincial and Territorial legislative and regulatory transitions
- Advance capacity building in Indigenous and remote communities to support corridor development and operation

# NATURAL GAS AS A 'BRIDGING FUEL" AND THE TRANSITION OF COAL WORKERS AND COMMUNITIES

Conventional gas production plus new and abundant sources of "unconventional gas" (e.g., shale gas, coal bed methane) has prompted the idea of using natural gas as a "bridging" fuel that enables a transition away from coal-fired power generation for near-term reductions in GHG emissions.

Phasing out coal-fired power generation will have direct and indirect impacts on thousands of workers, dozens of communities, mining companies and four provinces (i.e., Alberta, Saskatchewan, New Brunswick, and Nova Scotia).

In reality, the phase-out of coal fired power generation is already underway (e.g., Ontario and British Columbia).

https://www.canada.ca/en/environment-climate-change/services/climate-change/task-force-just-transition.html

David Suzuki Foundation, the Pembina Institute and the Pembina Foundation. (2011) ISBN 978-1-897375-40-2

# BRIDGING AND TRANSITION: HOW A STRATEGY-BASED SEA CAN HELP

## Environmental Outcomes

- Ensure reduced GHG emissions and improved human health outcomes
  - Assess net GHG emissions in a National and Provincial context of various phase-out scenarios and natural gas development, transport and utilization scenarios.
  - Promote decision-making based on quantified costs of emission reductions per $CO_2$-equivalent, costs of decommissioning and reclamation.
- Promote effective management of environmental effects of natural gas production, transmission, storage, LNG facility development and marine transport through lifecycle assessment
- Assess and manage environmental effects of coal mine and power plant decommissioning and reclamation.

## Social and Community Outcomes

- Assess and manage socio-economic impacts and benefits of new infrastructure
- Define regional needs and best for:
  - employment and income support,
  - education and skills building programs,
  - mobility programs, and
  - economic development programs.

# BRIDGING AND TRANSITION: HOW A STRATEGY-BASED SEA CAN HELP

## Macro-economic Outcomes

- Establish a reasonable cost to electricity ratepayers and taxpayers
- Greater certainty for mining and utility sectors
- Established short-term financing options for new infrastructure and social programs
- Agreement on timing and costs of further transition away from natural gas (i.e., we've crossed the bridge).

## Governance and Institutional Transition Outcomes

- Provide for Nationally coherent, regionally driven, locally delivered actions
- Advancement of transition in Federal and Provincial labour legislation and regulations.
- Established mechanisms to ensure involvement of worker, unions, community and industry throughout the transition.

# TOWARDS A NET ZERO EMISSIONS ECONOMY

Achieving Net Zero emissions involves:

- Balancing carbon dioxide emissions with carbon removal beyond natural processes, often through carbon offsetting or sequestering carbon dioxide to make up for emissions elsewhere.
- Eliminating carbon emissions altogether through the use of renewable energy
- Changing to industrial and agricultural processes to eliminate carbon production.

Carbon pricing and emissions trading are often used to provide incentives to reduce carbon emissions.

The concept may be extended to include other GHGs measured in terms of their carbon dioxide equivalence.

ADVANCING NET ZERO

A "Climate Ambition Alliance" has been created that brings together 65 countries, 10 regions, 102 cities and dozens of other businesses and investors who agree to work toward net zero carbon emissions by 2050.

# NET ZERO: HOW A STRATEGY-BASED SEA CAN HELP

## Environmental Outcomes

- Ensure reduced GHG emissions and improved human health outcomes
  - Assess and select options to maximize Provincial contributions to National emission reduction targets over time.
  - Assess select options to maximize sectoral contributions to National emission reduction targets over time.
- Evaluate effectiveness of measures for carbon offsetting
- Evaluate technologies and infrastructure requirements for wide-scale sequestering carbon dioxide

## Social and Community Outcomes

- Assess and manage socio-economic impacts and benefits of new technologies and infrastructure for the wide-scale sequestering carbon dioxide

# NET ZERO:
# HOW A STRATEGY-BASED SEA CAN HELP

## Macro-economic Outcomes

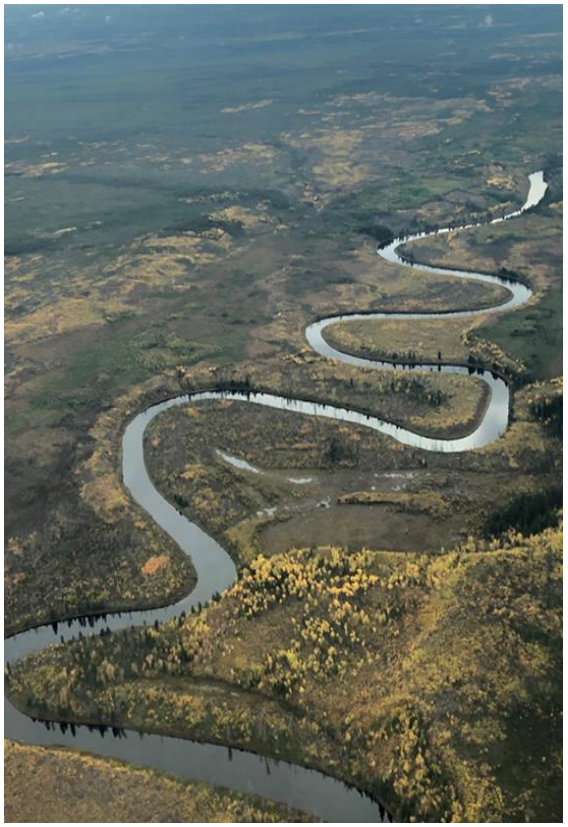
- Establish a reasonable cost to consumers and taxpayers
- Established short-term financing options for new technologies and infrastructure required for the wide-scale sequestering carbon dioxide

## Governance and Institutional Transition Outcomes

- Provide for Nationally coherent, sectoral driven and delivered actions
- Enhance cross-sectoral dialogue
- Provide linkages with international Net Zero efforts
- Advance transition in Federal and Provincial legislation and regulations.

# FINALLY....

- Both traditional and strategy-based SEAs have value but their applications vary
- Strategy-based SEAs are best applied to the Policies, Plans or Programs that are complex or controversial because they:
  - require inter-jurisdictional or cross-sectoral dialogue and collaboration
  - have a sense of urgency for decision-making and taking action in a relatively short time-frame
  - would benefit from science-based and traditional knowledge gathering and sharing
  - require transitions in governance structures and institutional cultures to be successful
  - require creative and strategic thinking to achieve desired outcomes



# THANK YOU

## Your Questions are Welcome