



Cumulative Effects Assessment – IAAC’s Guidance

NOVA SCOTIA OFFSHORE WIND REGIONAL ASSESSMENT COMMITTEE – AUGUST 16, 2024



Impact Assessment
Agency of Canada

Agence d'évaluation
d'impact du Canada

Canada

Purpose

- Discuss the practice of Cumulative Effects Assessment (CEA) in an Impact Assessment Context
- Provide an overview of CEA resources including IAAC's existing cumulative effects guidance documents.



Government and Legal Context



- Mandate (2) The Government of Canada, the Minister, the Agency and federal authorities, in the administration of this Act, must exercise their powers in a manner that ... considers the **cumulative effects of physical activities**
- Legal precedents (e.g., Blueberry River First Nation & the Yahey decision)
- Government of Canada priority (e.g. [interim message](#))

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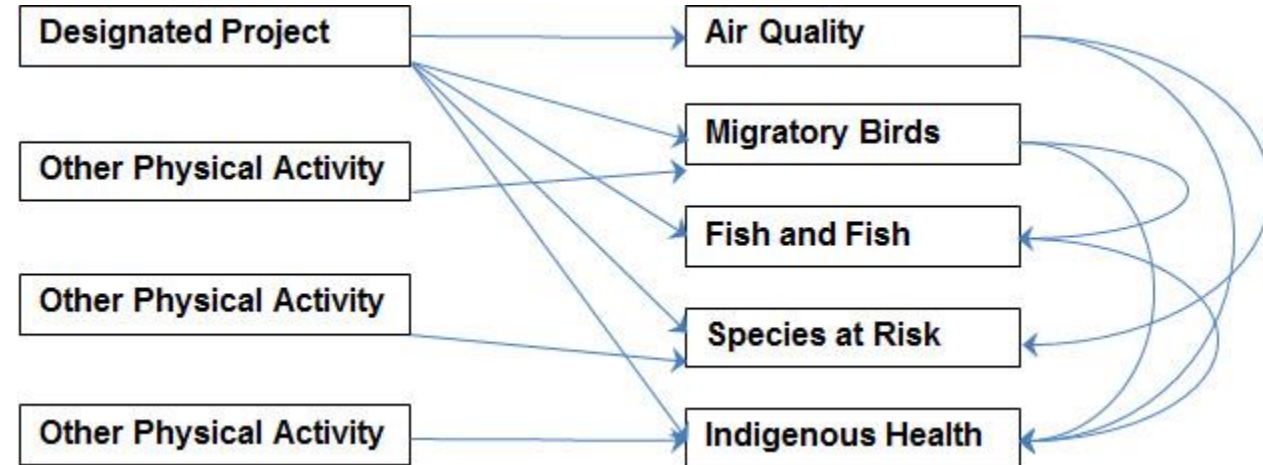


What are Cumulative Effects?

The *IAA* defines “effects within federal jurisdiction” as non-negligible adverse changes to-

- components of the environment that are within the legislative authority of Parliament,
- The marine environment outside Canada, boundary waters, international waters, interprovincial waters, caused by pollution
- Indigenous Peoples of Canada (s.2)

Cumulative effects are the effects that are likely to result from a designated project in combination with other physical activities that have been or will be carried out. (s.22)



Types of Cumulative Effects

Synergistic Cumulative Effects

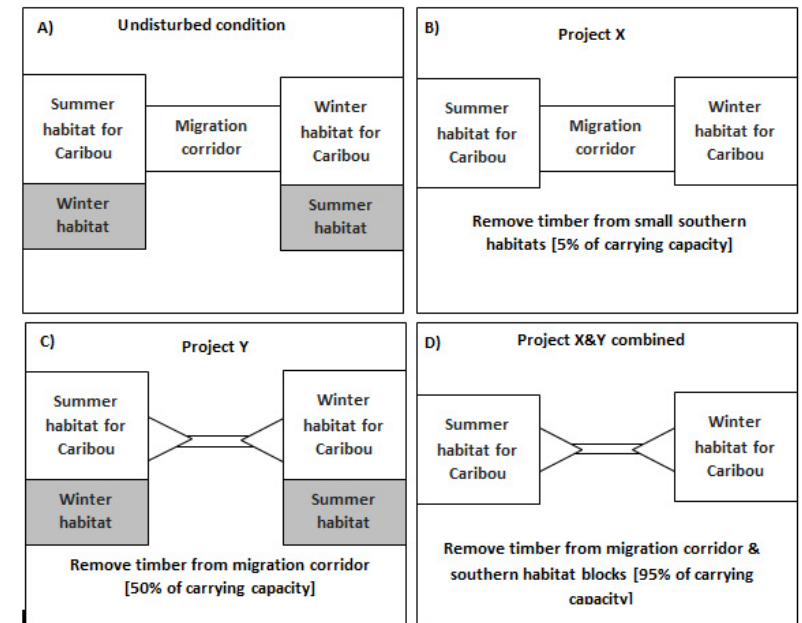
- A synergistic cumulative effect occurs as a result of the interaction between two or more effects, when the resultant combination is greater or different than the simple addition of the effects.

Compensatory Cumulative Effects

- Compensatory cumulative effects are effects from two or more physical activities that “offset” each other.

Masking Cumulative Effects

- Effects of one may make another undetectable. E.g. Warm water plume associated with a project may be masked by a greater plume of another project.





Existing Agency Documents on CEAs in IAs

- Policy Framework for Assessing Cumulative Effects under the *Impact Assessment Act*
- Technical Guidance for Assessing Cumulative Environmental Effects under the *Canadian Environmental Assessment Act, 2012*



The CEA Process (1)

Scoping

- Determine which VCs will be subject to a CEA (for example, fish habitat or air quality)
- Determine which other physical activities or non-physical activities (policies, plans, programs, stressors) will be considered on the included VCs.
 - What is the appropriate baseline condition?
 - What are the appropriate temporal boundaries?
 - What are the appropriate spatial boundaries?

Analysis

- What are the types of cumulative effects and how do they manifest?
- How are the cumulative effects quantified, and what are the appropriate considerations? Uncertainty, data limitations, etc.



The CEA Process (2)

Mitigation

- Elimination, reduction or control preferred; offsetting if not possible
- Identifying other parties

Describing Effects

- Predictions clearly presented and rationalized against criteria
- Magnitude, geographical extent, timing, frequency, duration and reversibility of the potential adverse effects, as well as any important contextual factors (including Indigenous Knowledge)

Follow-up

- Programs to verify findings of CEA, effectiveness of mitigation measures



Important Considerations in CEA

- Selection of VCs
- Selection of baselines
- Indigenous Rights
- Data availability and uncertainty
- Feasibility – level of effort and expertise
- Jurisdictional considerations (e.g., data collection, mitigation)



CEA in an RA Context

- May be informed by findings from projects level assessments including project CEAs
- Landscape effects and land use effects are often important in RA
- Enhanced need for engagement and collaboration between relevant stakeholders and governments, many sources of data and knowledge, including Indigenous Knowledge
- Opportunity to uncover sensitivities or potential tipping points of VCs that future projects can evaluate against, and identify types of monitoring that will be needed
- Can identify future data needs (e.g., predictive modelling for certain effects)



Resources

- Federal Data and Guidance
 - Agency Guidance on CE Assessment
 - [Open Science and Data Platform](#)
 - Data on baseline conditions
 - CE Studies by federal authorities (FAs)
 - Analytical Methods to CE Guidance by FAs
- Provincial Data and Guidance
 - Some provinces have platforms, e.g. BC has the CEF Data platform
- Academic Data and Guidance
 - Studies on Baseline conditions (web of science)
 - Studies about CEA practice, including some related to CEA funded by the Agency [Improving the Consideration of HSE Values in CEA in Canada](#), [Regional Assessment Practice in Canada 2000-2020](#)
 - [Advice of Technical Advisory Committee on Science and Knowledge](#)

