

Cumulative Effects Assessment and Management: A Framework for Sustainability

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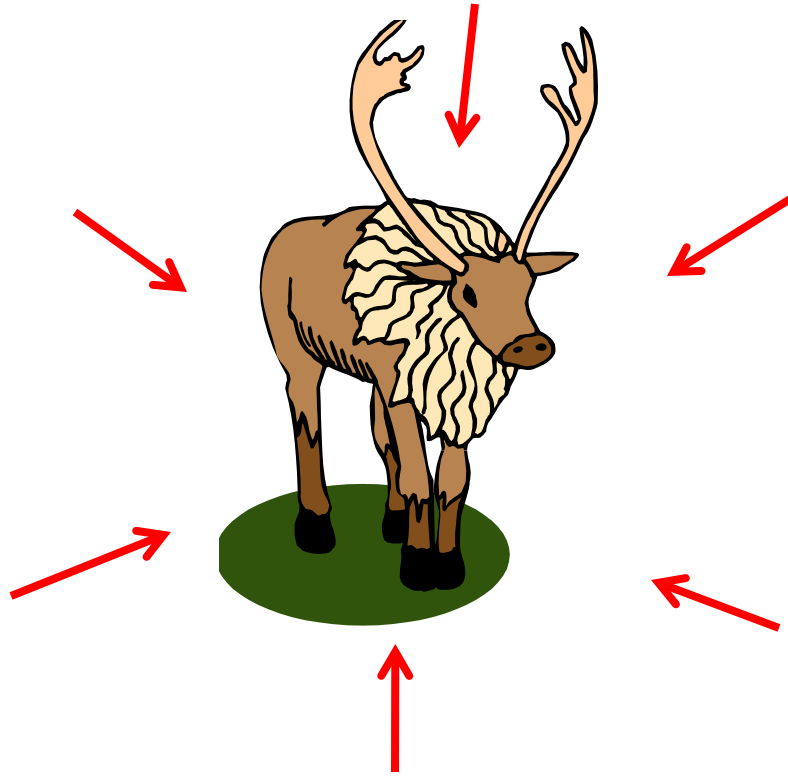
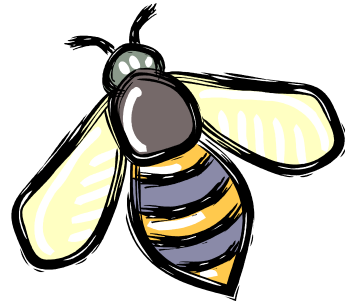
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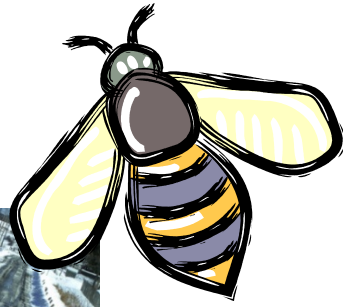
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What are cumulative effects?

- the combined effects of natural factors and human activities on wildlife populations
- occur across space (local, regional, landscape) and time (past, present, future)
- affect environmental, social, cultural, economic or human health values





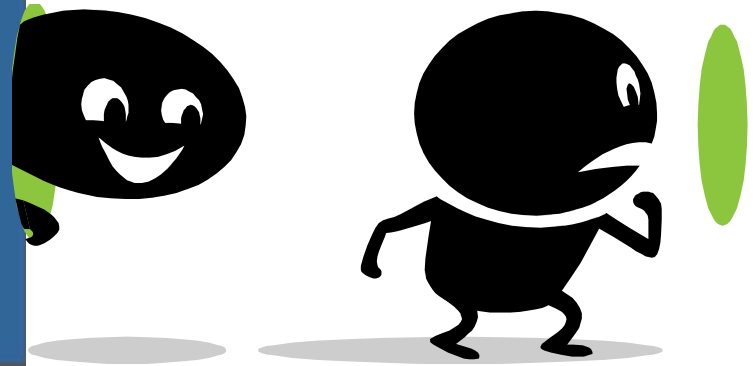
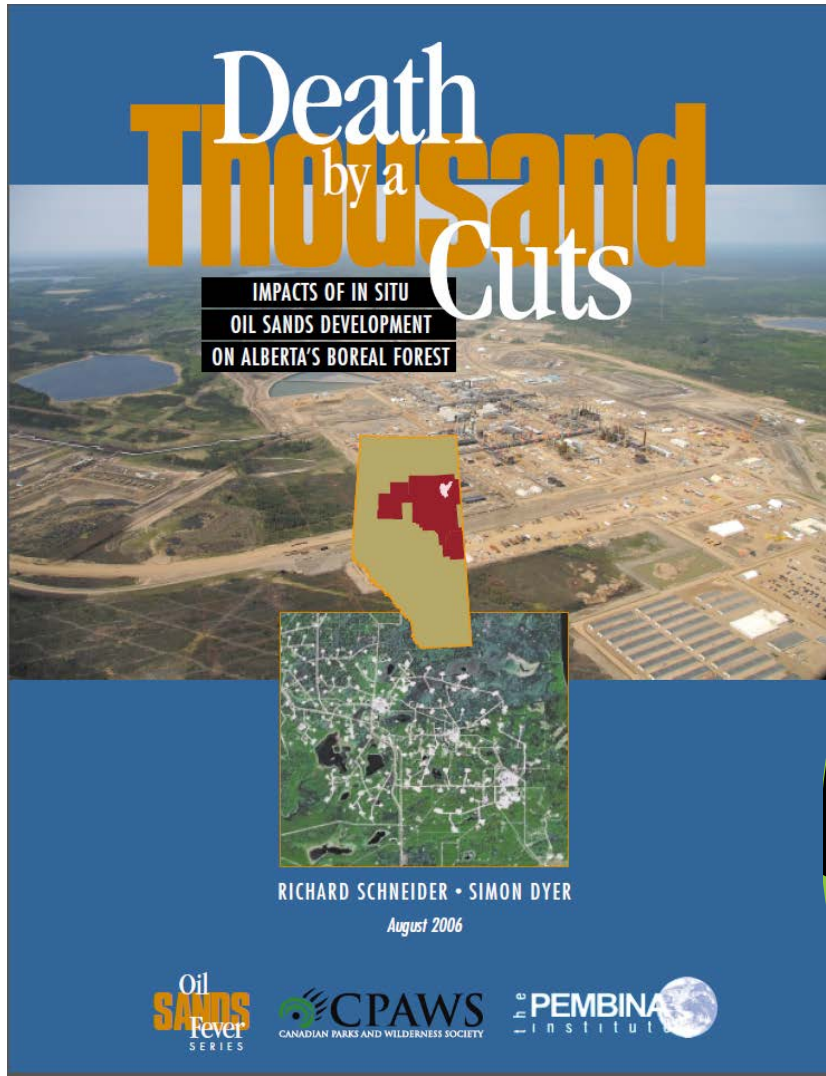


How do we typically consider CE?

- On a project by project basis
- requirement of the Mackenzie Valley Resource Management Act and the Canadian Environmental Assessment Act
- One component of a project specific environmental assessment

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Incremental change



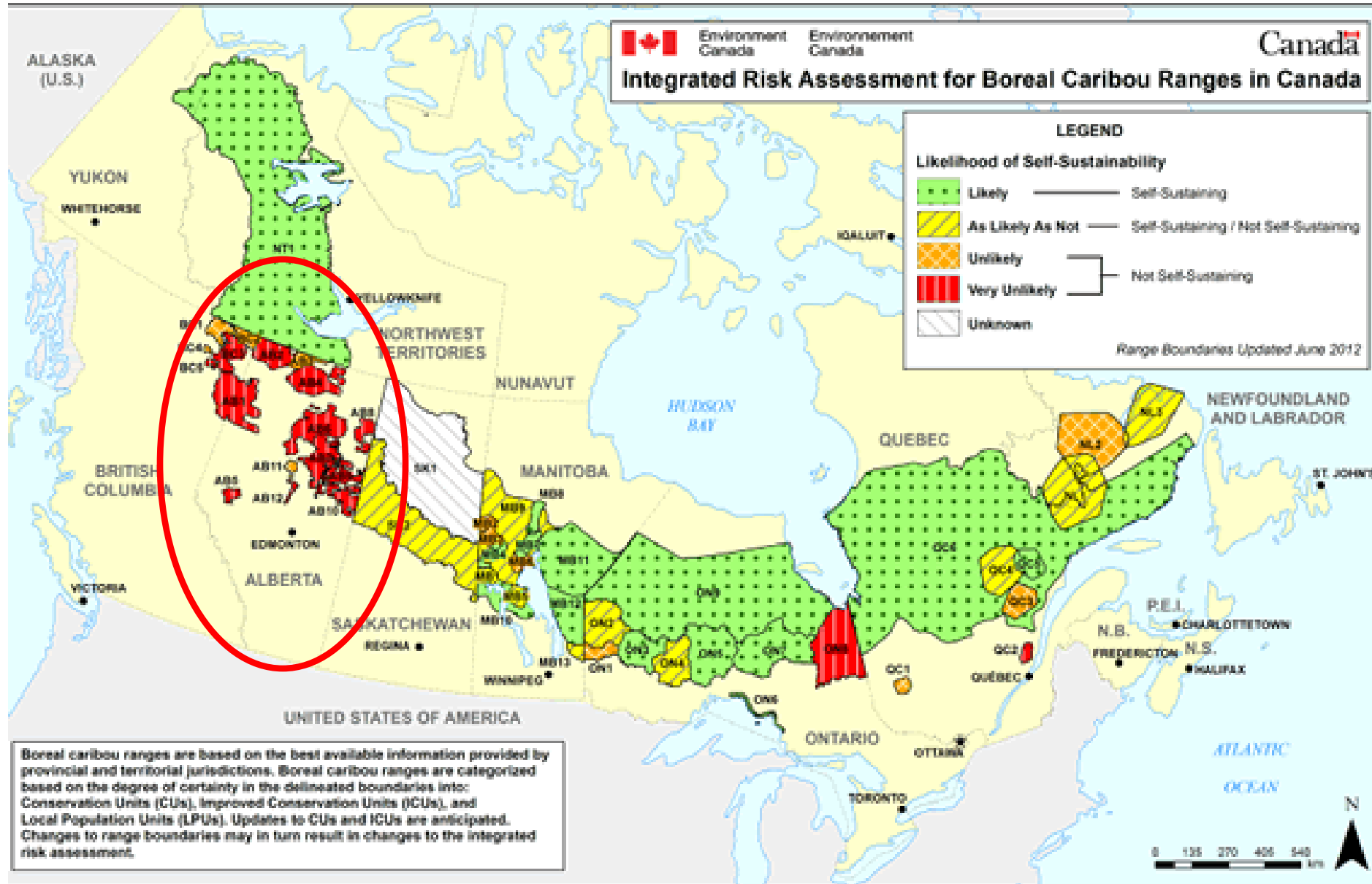


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Integrated Risk Assessment for Boreal Caribou Ranges in Canada



Why is it difficult to manage CE?

- Shared resources
- Interests compete rather than working together
- Need an approach to allow interests to work together



Shift in focus

- Shift from interests to values
 - ecological, social, cultural and economic
- From project specific to regional or VEC based
- From reactive to proactive



EA Recommendations

- **1999 Minister's Decision – Diavik Diamond Mines**
 - “...a regional cumulative effects management framework,will be designed and implemented...”
- **2003 MVEIRB Report of Assessment – DeBeers Snap Lake**
 - “...implement a regionalized multi-party response to the monitoring for and management of cumulative effects...”
- **2013 MVEIRB Report of Assessment - Fortune Minerals NICO Project**
 - “....develop a response framework for managing cumulative impacts...”

CE Assessment and Management Framework

- A shared understanding of the social and ecological system
- Agreement on the values to maintain
- Agreement on the indicators and thresholds to be managed
- Commitment to manage on a CE basis



CE Assessment and Management Framework

- Immense collaboration among
 - Industry
 - Government
 - Co-management partners
 - First nations
- Long term commitment
- Clear roles and responsibilities
- An appreciation of trade-offs
- Clear, consistent operating environment



