# Towards a Holistic, Integrated Approach: An Update from the Cumulative Impacts Research Consortium (CIRC)


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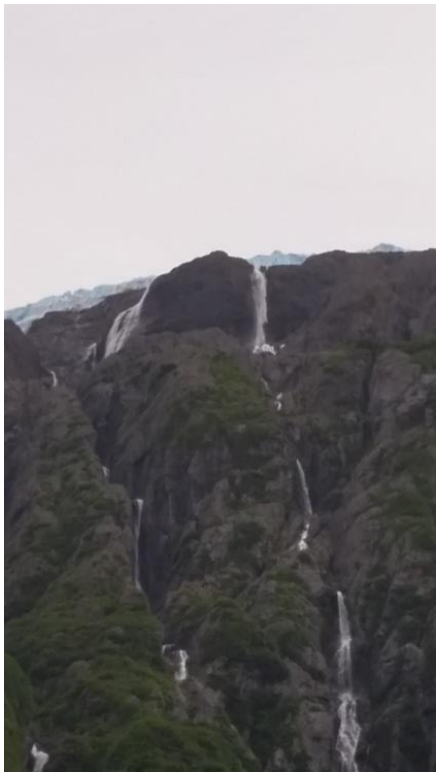


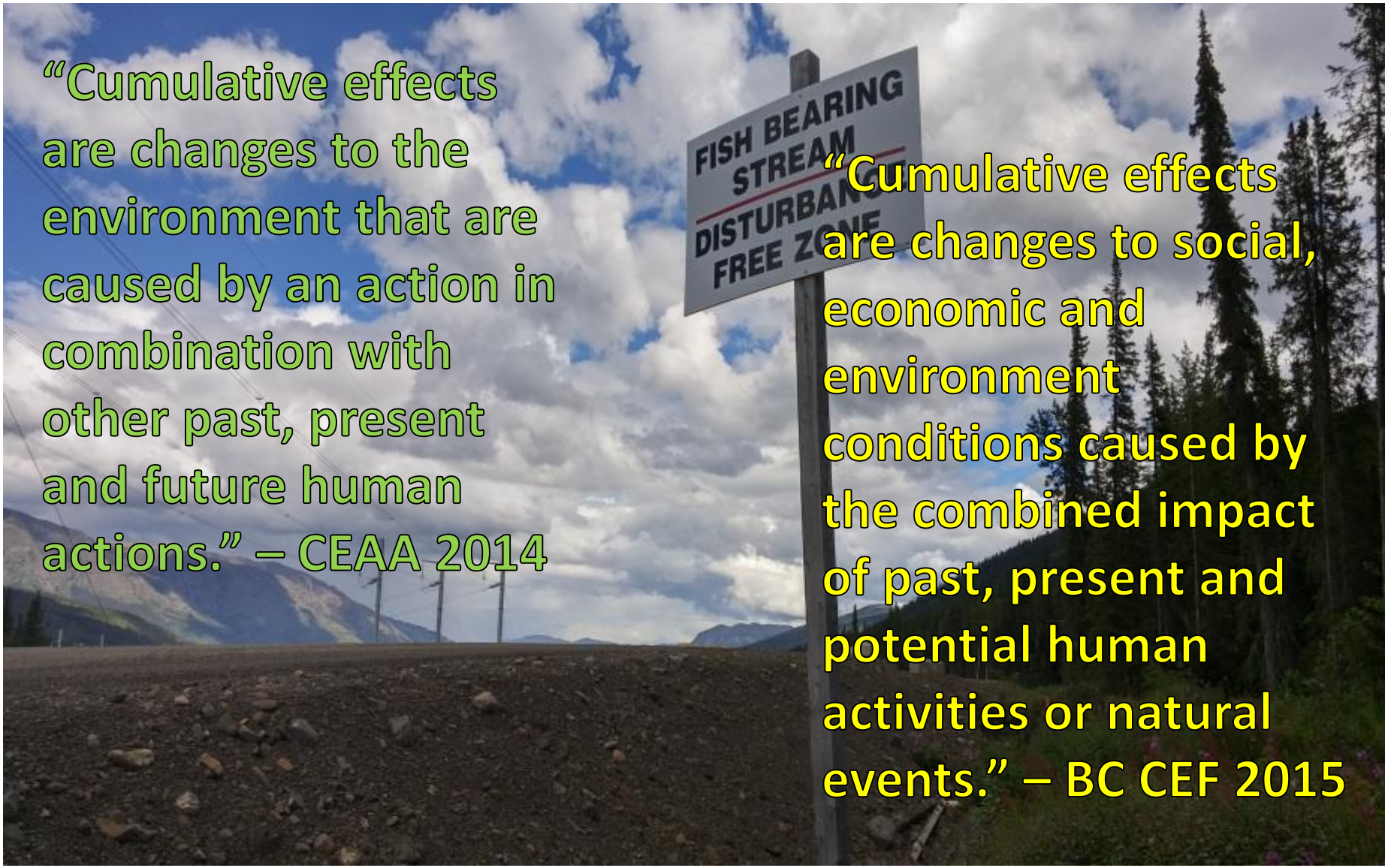
**Cumulative Effects and the Future of Natural Resource Management**

**March 2, 2016**

# The 10 000ft View

- Cumulative impacts and cumulative effects…What's in a word?
- Why this focus now?
- Who are we and what is the CIRC?
  - Community Engagement
  - Research
- Future directions for CEA

# What's in a word? Cumulative 'effects'



# Challenges for Cumulative Effects Assessment

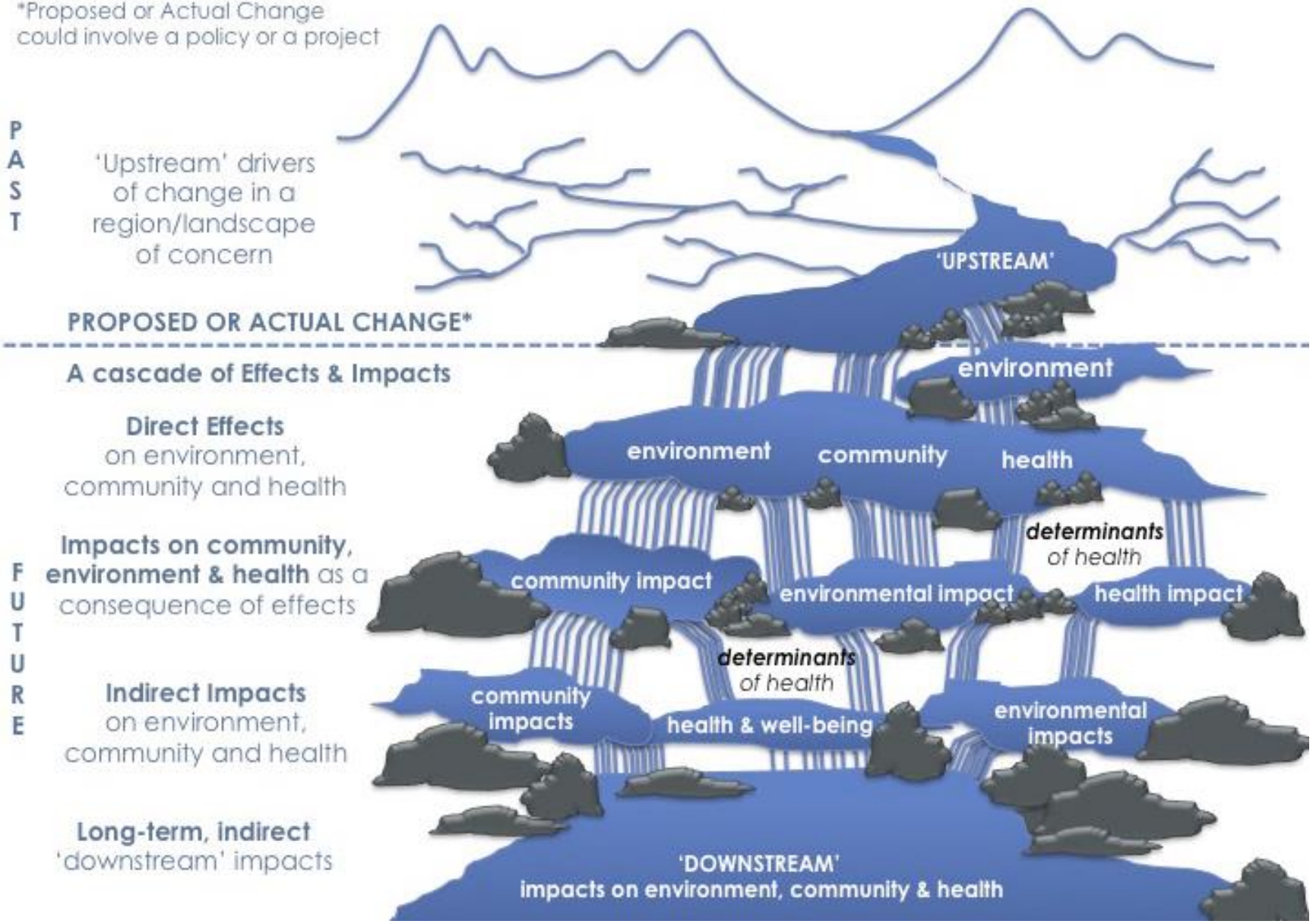
- Narrow understanding of effects
  - Primarily associated with environmental change and 'valued ecosystem components'
  - Largely proponent driven through EA process (at least in BC)

- Limited spatial and temporal scale of assessment protocol
  - CEA primarily limited to project footprint
  - 'Baseline' may already be affected by influenced by other developments
  - Lack of clarity around enforcement and requirement for long-term monitoring/mitigation

# (Cumulative) 'Impacts' vs. 'Effects'

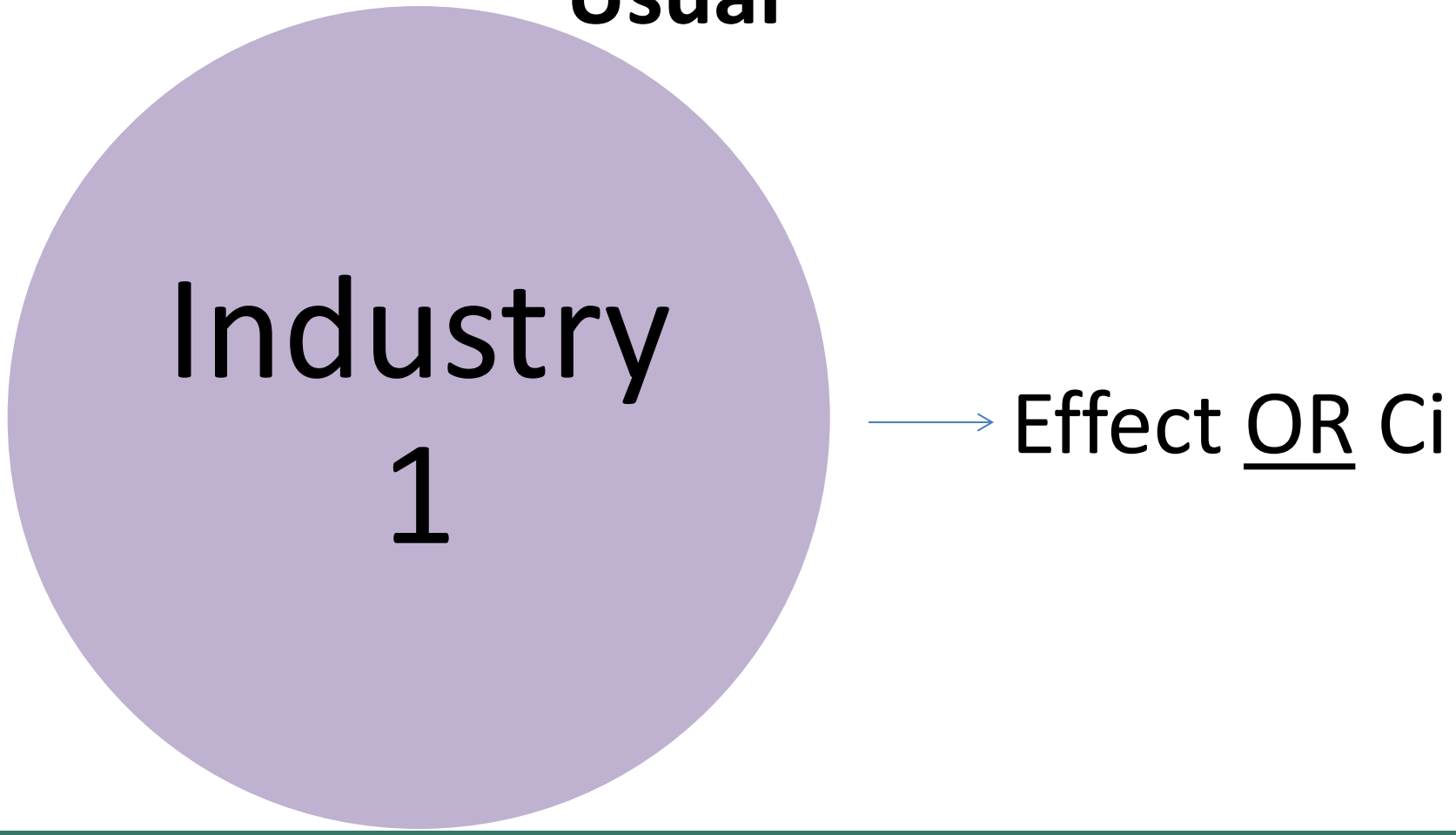
- 'Impacts' = longer term consequences that flow from an effect or effects
  - The effects of effects

- 'Cumulative impacts' may occur when resource development is imposed on past land use and development activities in ways that leave lasting consequences for people, their communities, and the broader physical environment

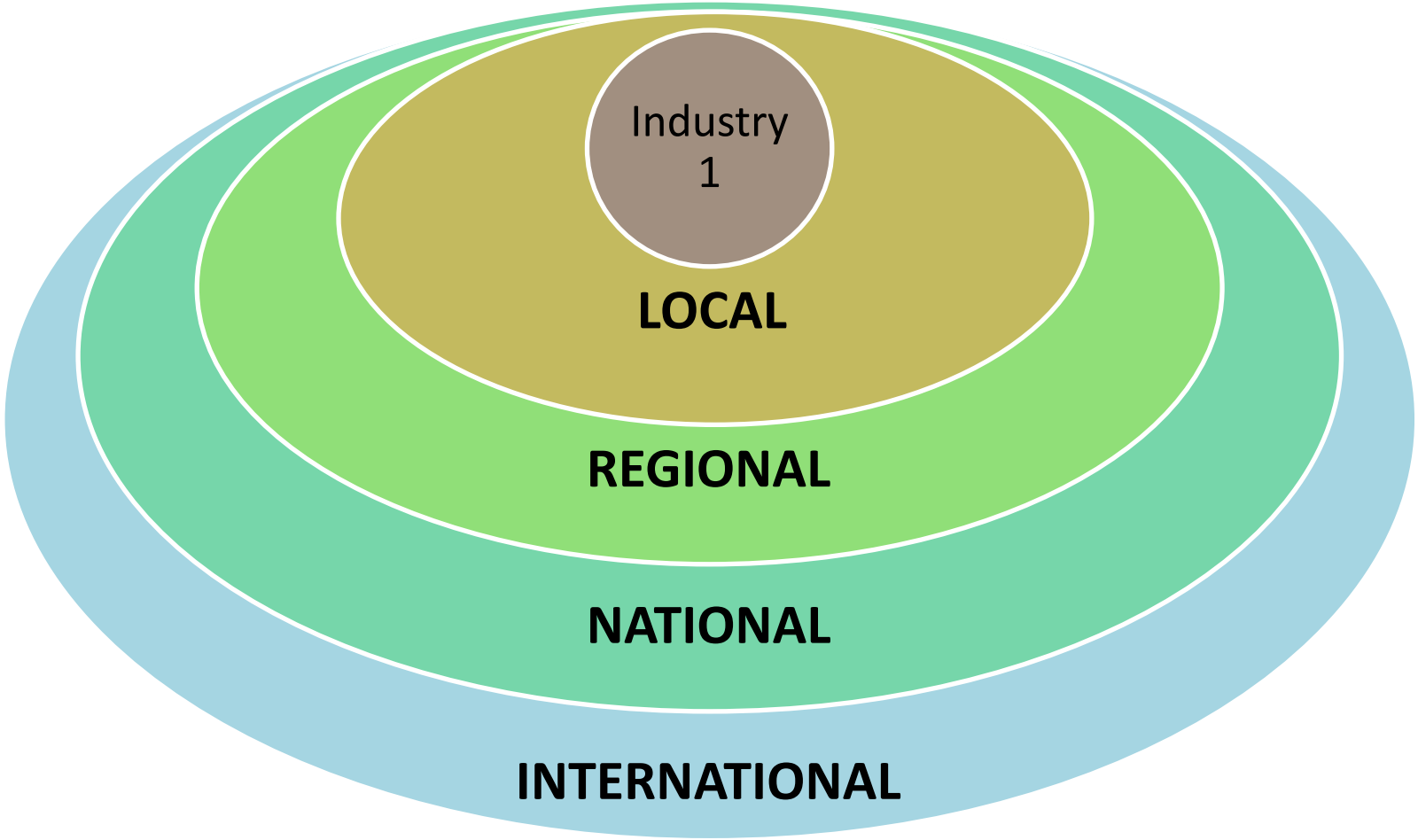



Source: Margot Parkes (forthcoming)

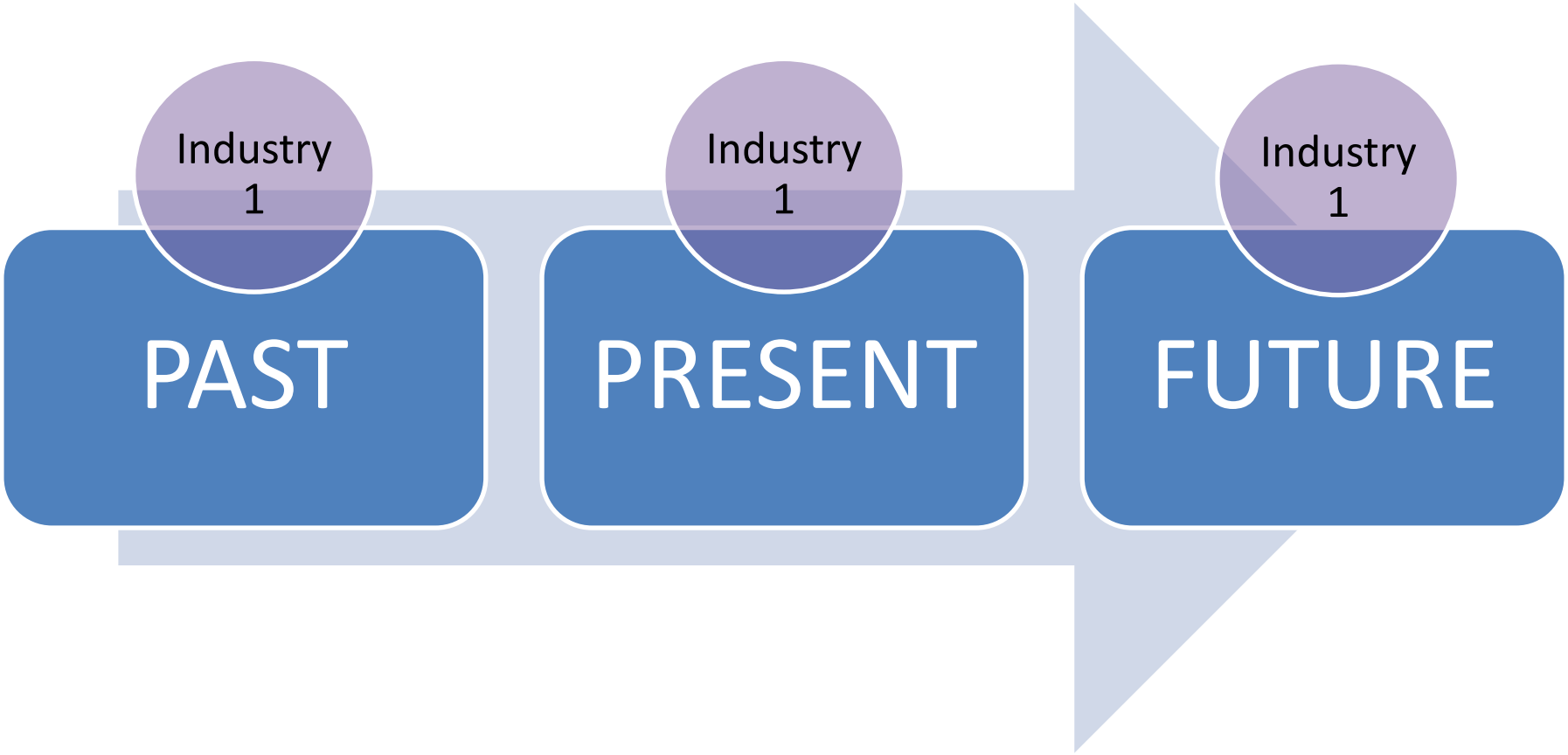
# ‘Integration Imperative’: Business as Usual



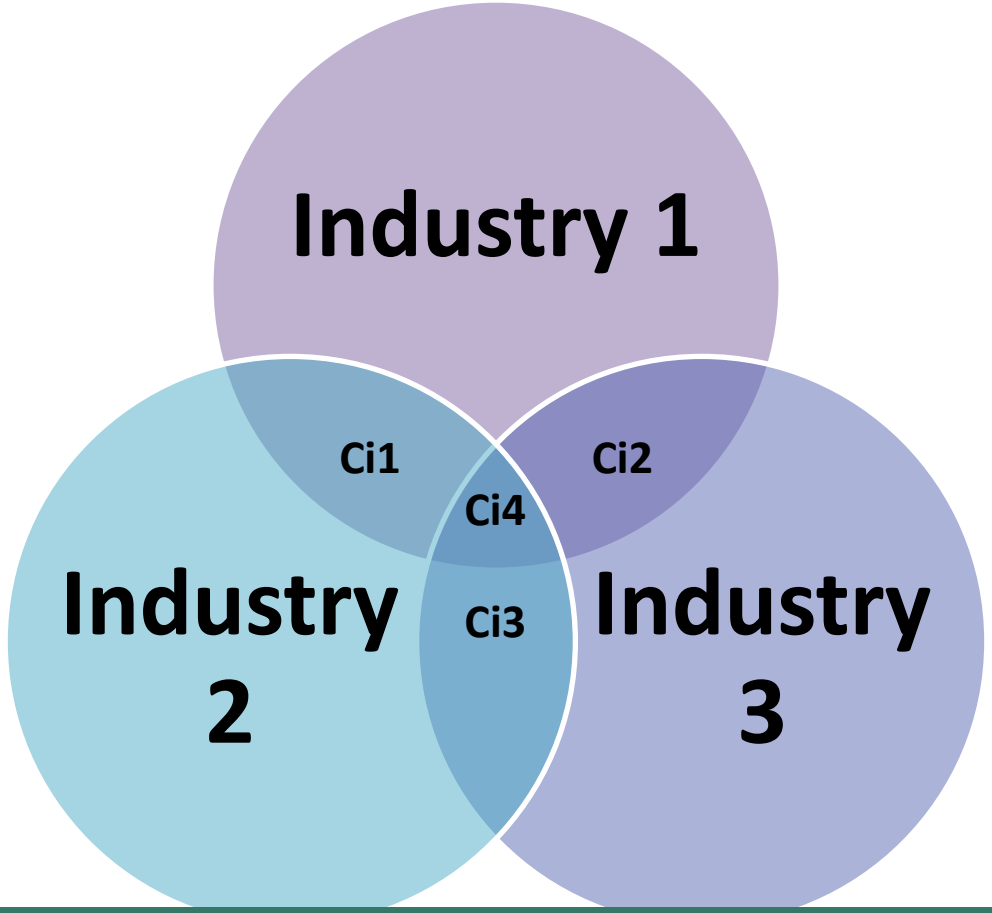
# ‘Integration Imperative’: Integrated Scale



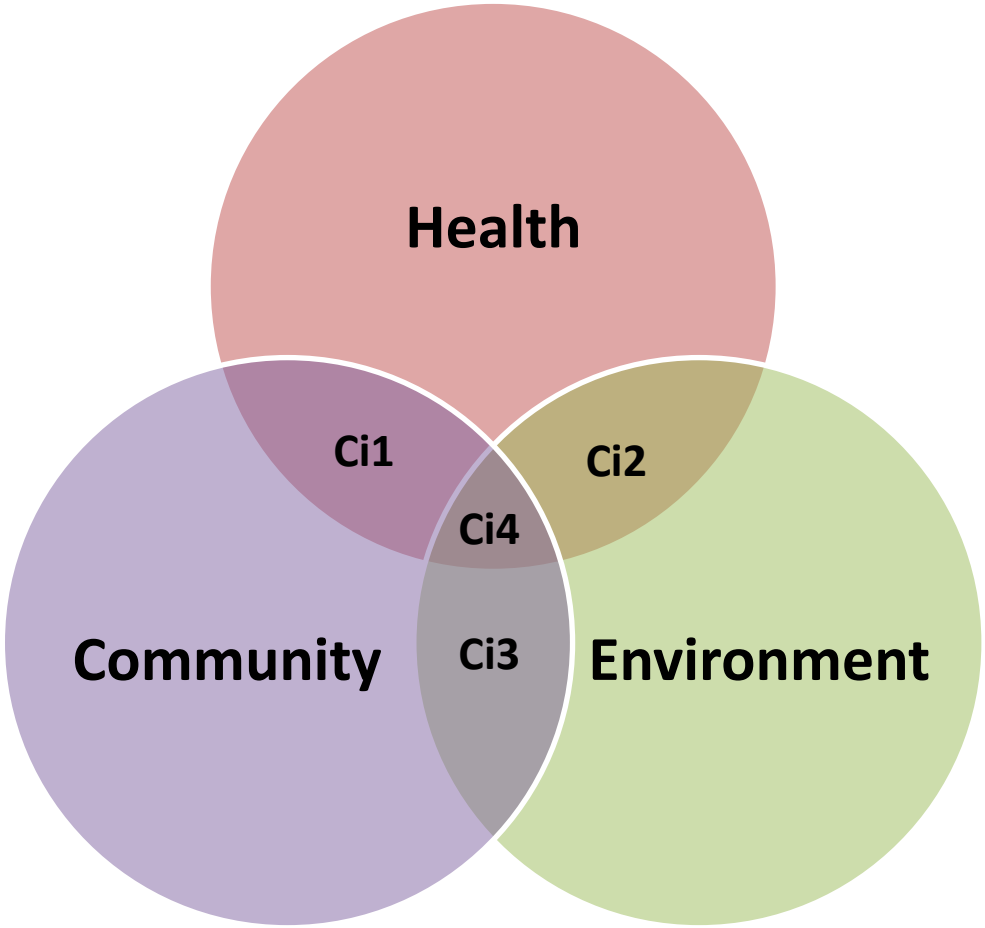
# ‘Integration Imperative’: Temporal Integration



# The 'Integration Imperative': Integrated Sectoral Approach



# ‘Integration Imperative’: Integrated Values



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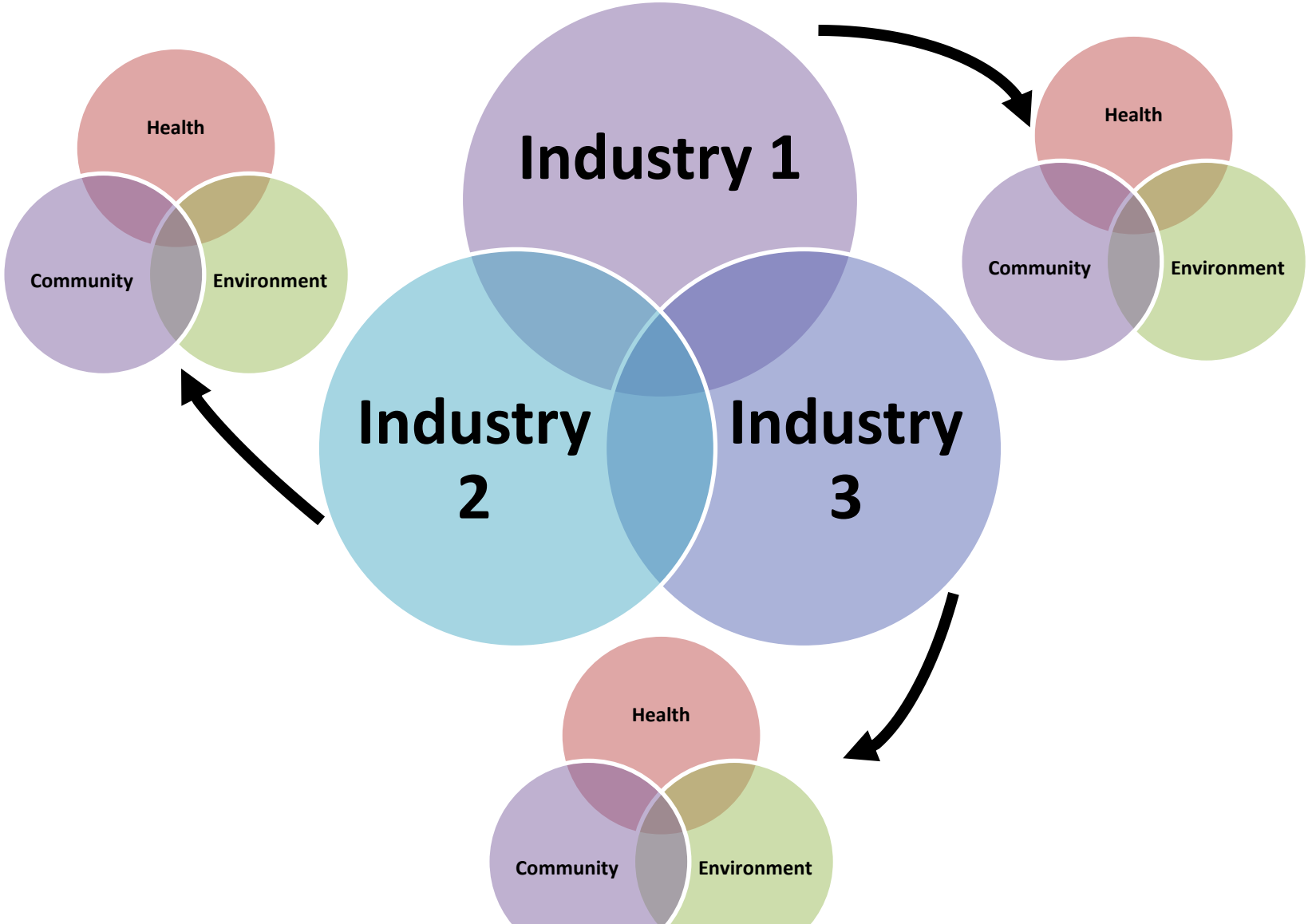

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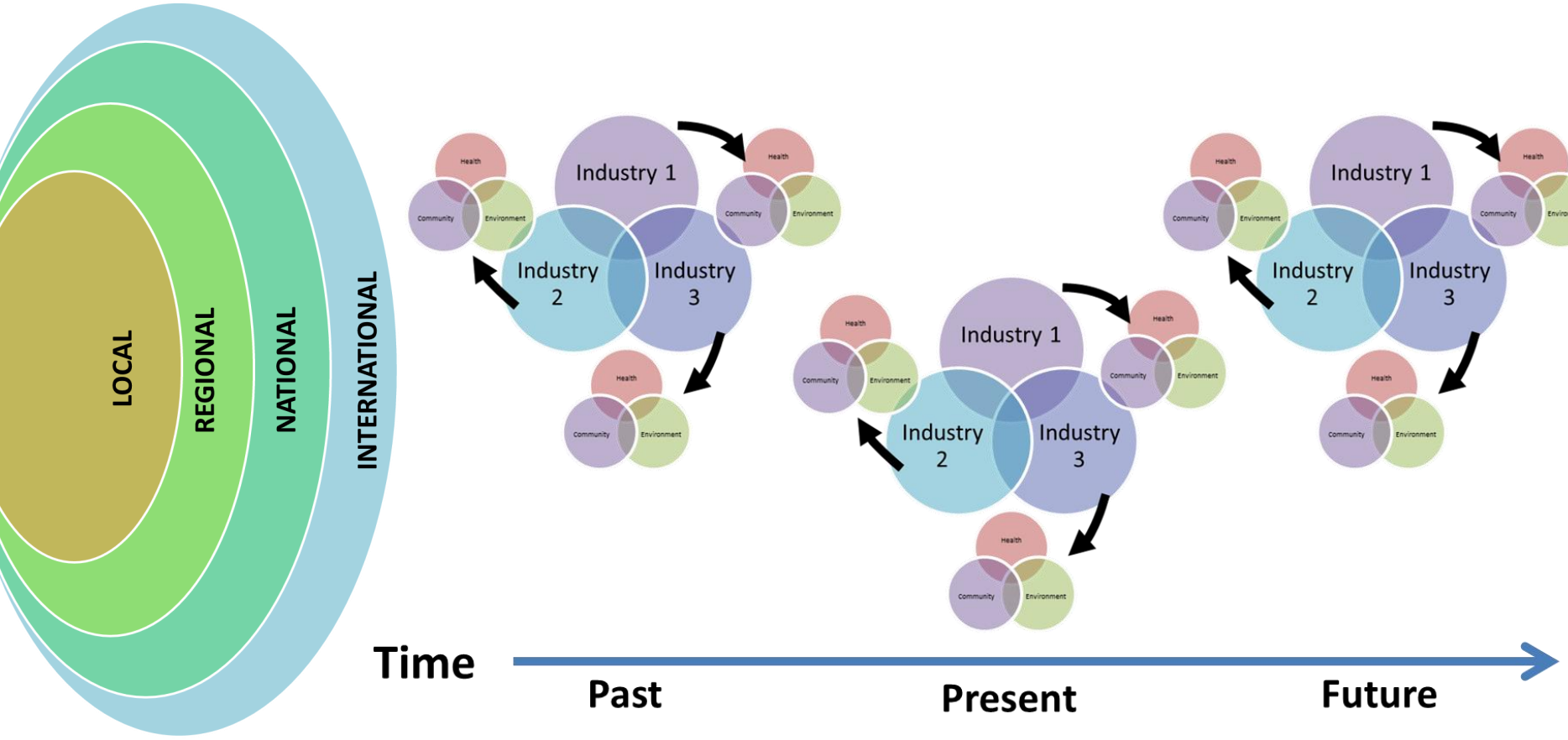


# Why this focus and why now?

Fig 1. Expansion of oil and gas wells in the Peace

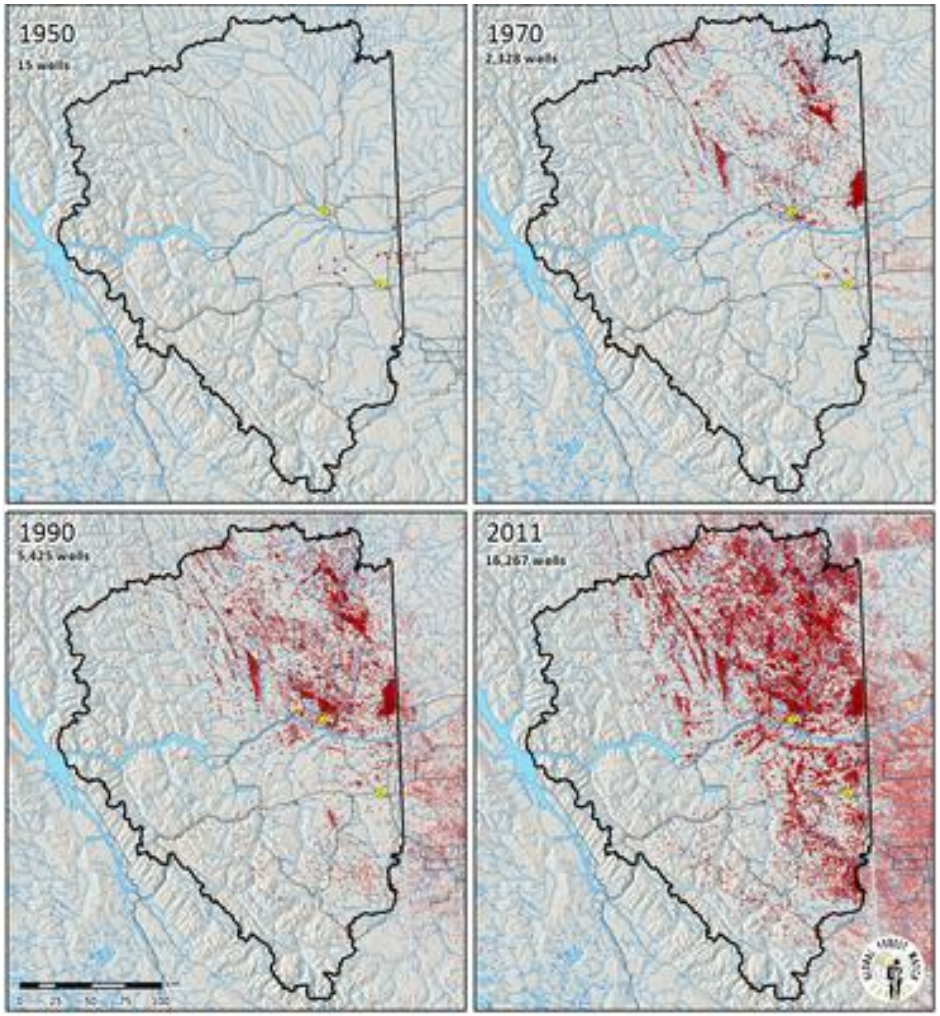



Fig 2. Cumulative Change in the Peace

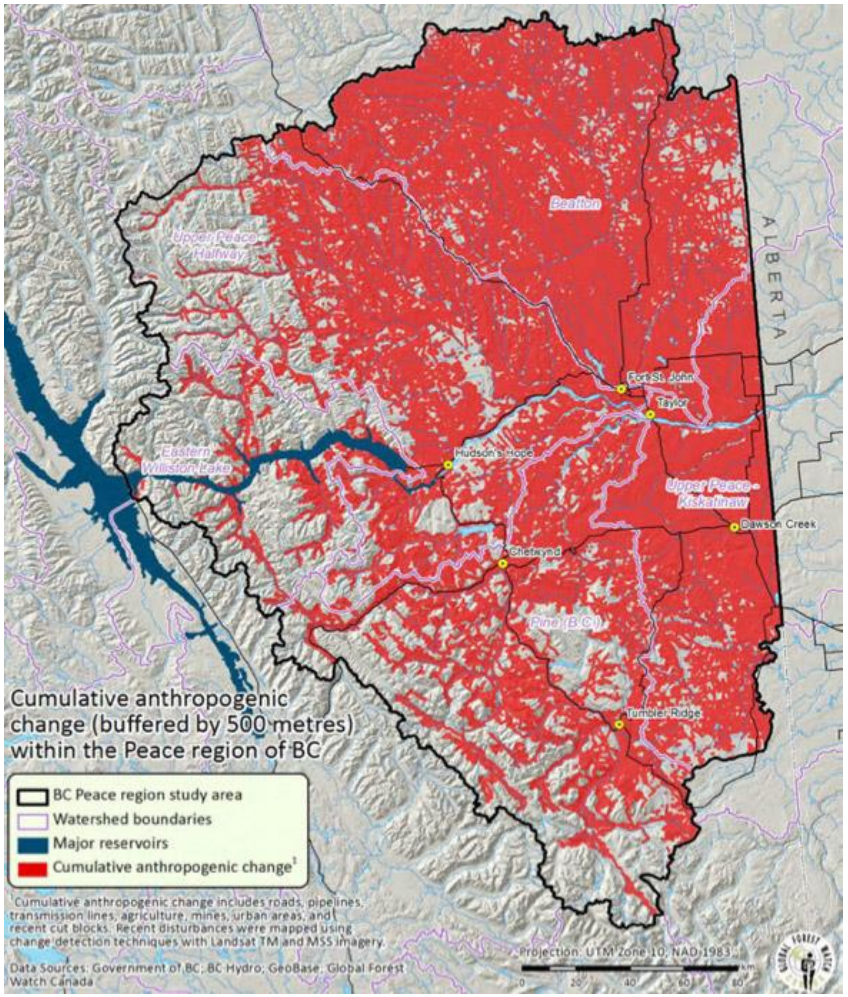
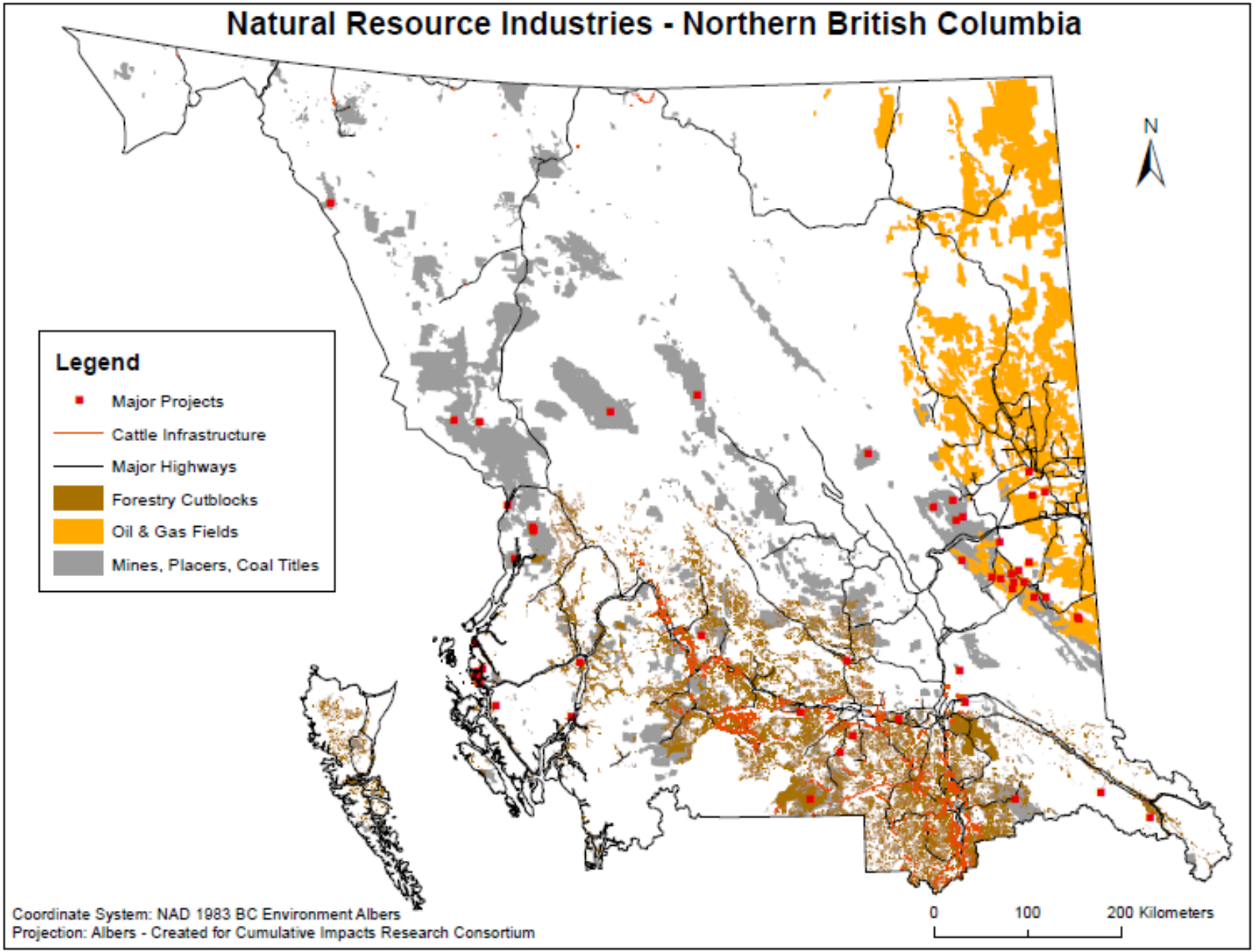


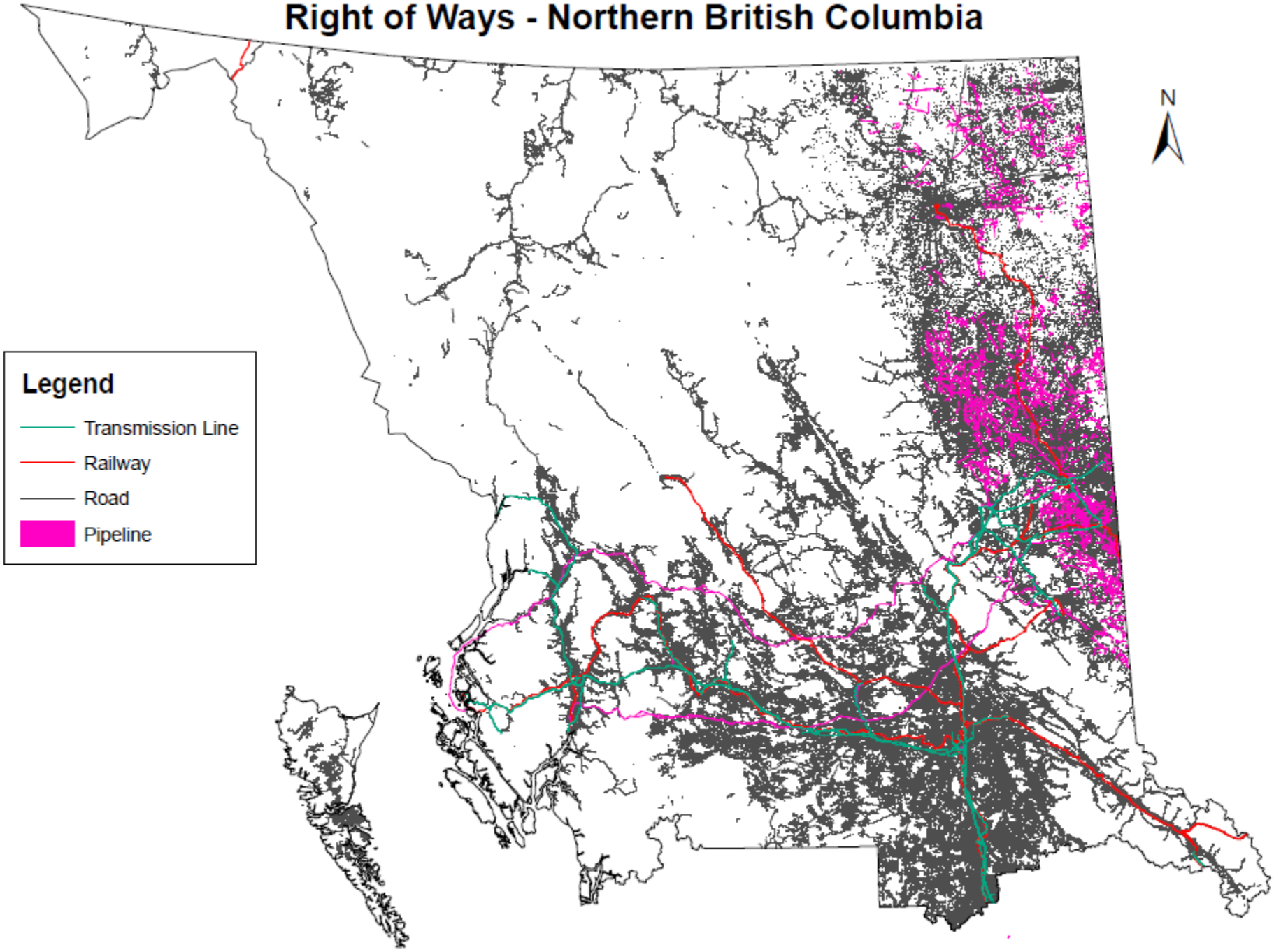

Figure credits: Global Forest Watch 2011

# Natural Resource Industries - Northern British Columbia




Coordinate System: NAD 1983 BC Environment Albers
Projection: Albers - Created for Cumulative Impacts Research Consortium

# Right of Ways - Northern British Columbia




Coordinate System: NAD 1983 BC Environment Albers
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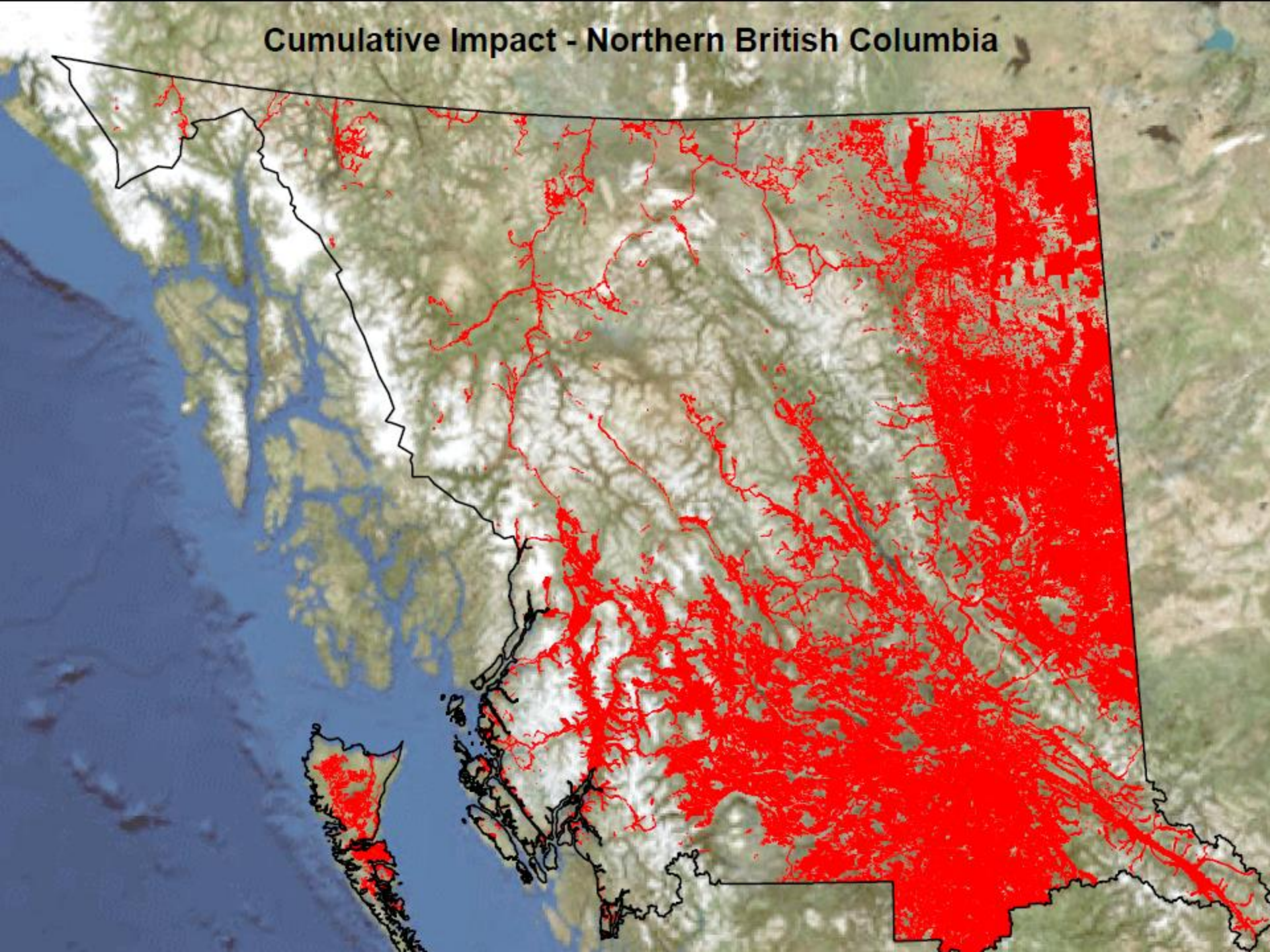
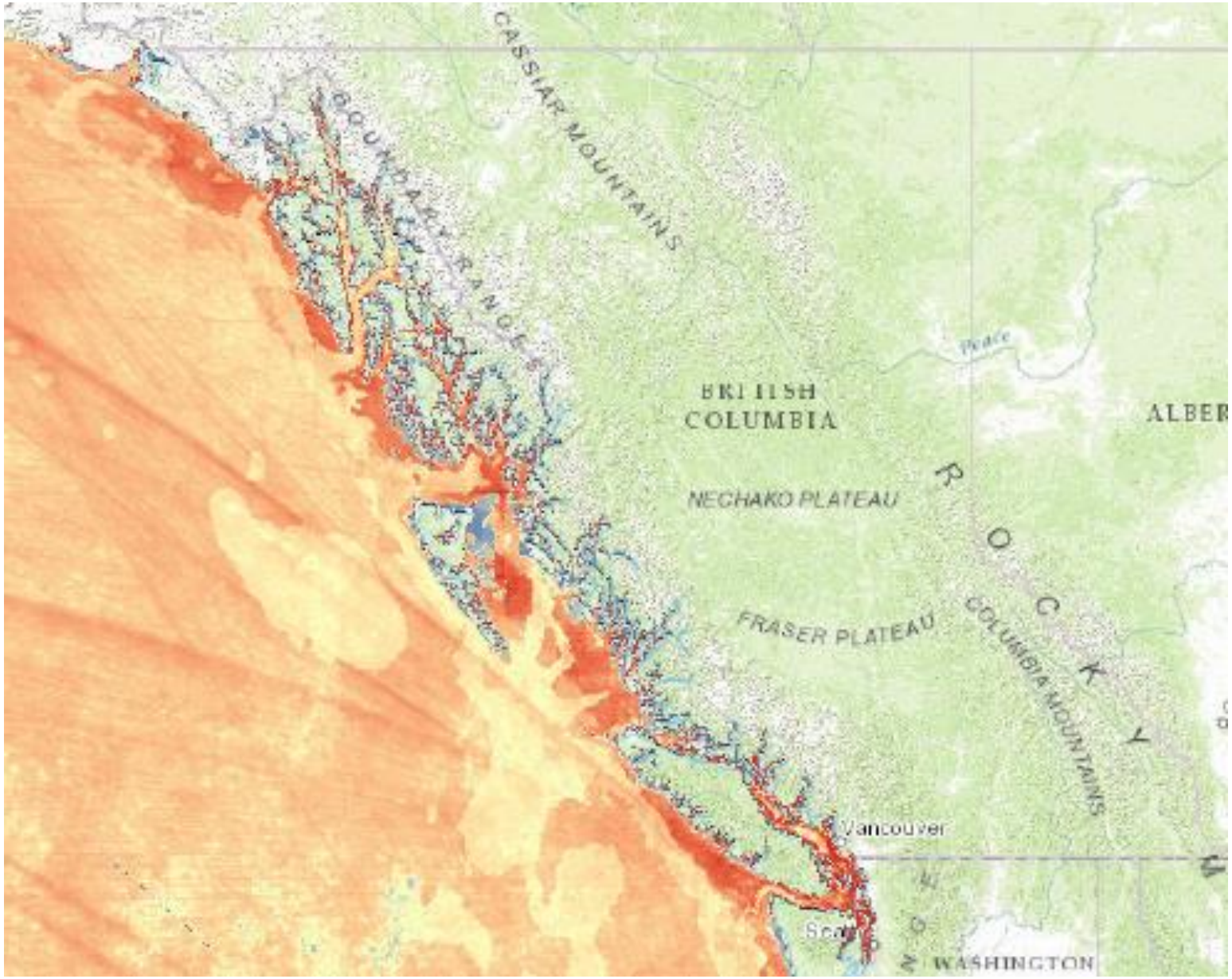
0 100 200 Kilometers


Cumulative Impact - Northern British Columbia

# Cumulative Effects on BC's Coast




Map Credit: McClintock, SeaSketch

# Who are we?

# Introducing the CIRC

- CIRC is a community outreach and research initiative at UNBC seeking to understand the cumulative impacts of resource development across northern BC

- We are collaboratively led by the Health Research Institute, the Community Development Institute, and the Natural Resources and Environmental Studies Institute; and governed by a tri-institute Steering Committee and Advisory Committee of northern stakeholders

# CIRC Governance Composition

## Steering Committee

**Present:** Greg Halseth (CDI); Marleen Morris (CDI); Margot Parkes (HRI – on sabbatical); Henry Harder (HRI); Rachael Wells (HRI); Art Fredeen (NRESi); Michelle Connolly (PICS)

**Past:** Kyle Aben (PICS); Leanne Elliott (NRESi)

## Advisory Committee

**Present:** John Disney; Lana Lowe; Joan Chess; Jennifer Pighin; Nicole Cross; Andy Ackerman; Viva Wolf; Richard Kabzems; Wayne Salewski; Sandra Harris; Charl Badenhorst; Alan Madrigga; Rob Spitzer

# What do we do?

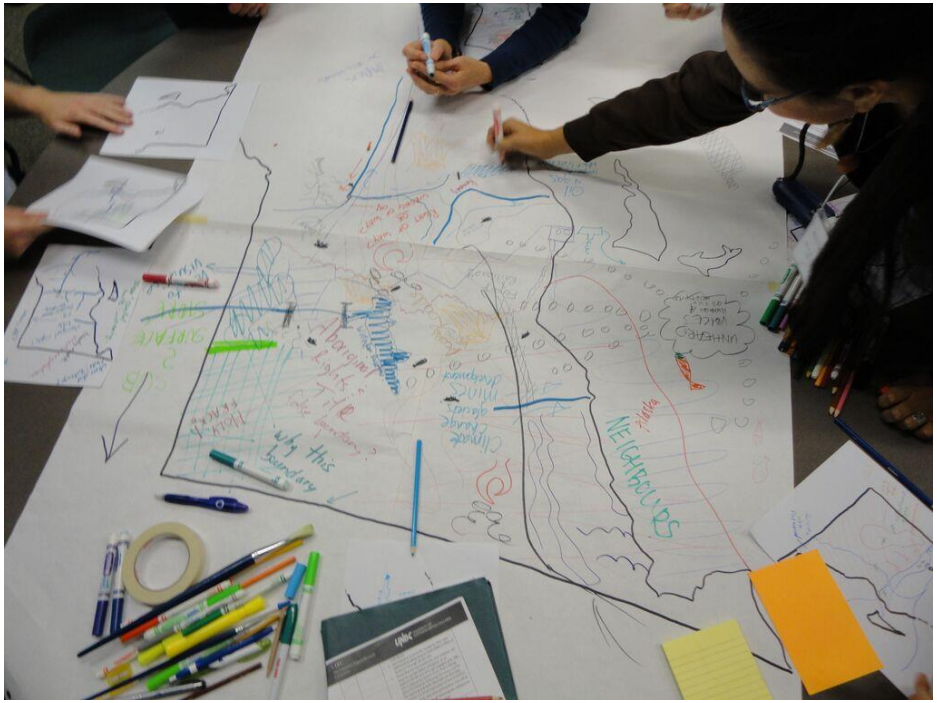
# CIRC Approach to Community Engagement

- Principles to guide action:
  - Multistakeholder participation
  - Sustainability (in its broadest sense)
  - Large landscape vision
  - Integration

- Rooted in 3 interrelated goals:
  1. Education 2. Sharing 3. Knowledge to action

# Education: Understanding Cumulative Effects/Impacts

# Sharing: Building Dialogue Across Northern BC




# Knowledge to Action: Promoting Capacity


- Leveraging multiple ways of knowing into concrete partnerships and future directions for practice

# Community Needs Identification

- “Lots of data, little information”

- Need for higher degree of meaningful and transparent community participation in research and resource development planning/operation

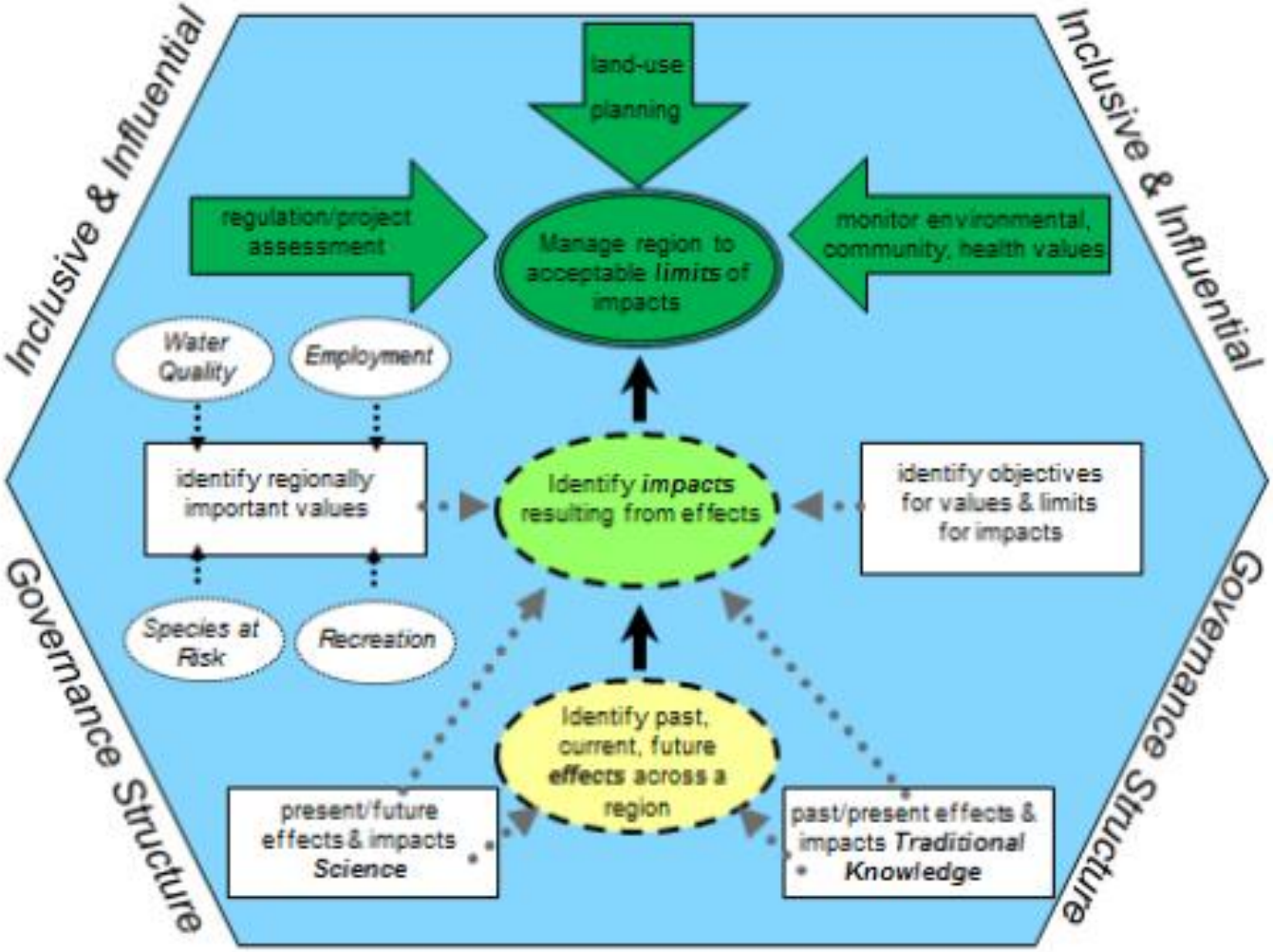
- Need for change by identifying entry points to address cumulative impacts before they emerge

# Next Steps for CIRC - Engagement

- Upcoming events:
  - Vanderhoof, BC – April 7, 2016 | 6-8PM | Nechako Senior Friendship Centre
  - Taylor, BC – April 18-20th | Taylor Community Centre | NEBC Upstream Update
  - Quesnel, BC – April 2016 (TBD) | Quesnel Town Hall

- Planning events in Prince Rupert, Smithers and Fort Nelson for summer/fall

# CIRC: Research




Source: Gillingham et al. (forthcoming)

# CIRC: On-going Research

1. Examining the community impacts of unconventional natural gas development in BC along the supply chain (SSHRC)

2. Health Impacts of Resource Extraction and Development (NHA/FNHA)

3. Living library of CE Projects (PICS)

# CIRC: Future Research

1. Examining the 'state of the art' of CEA in BC through interjurisdictional comparative case studies (UNBC / NSERC)

2. Developing new tools to assist decision-makers in assessing, monitoring and planning for cumulative impacts (BC Real Estate Foundation, w/ 3 community partners)

3. Environmental and Community Health Observatory (CIHR, w/ 5 university partners, 10+ community partners)

4. Socioeconomic indicator development and storage (HRI w/ NHA and BC CDC)

# Reflections on the Future of CE Practice

1. **‘Loopholes’ and project size**

2. From consultation to participatory co-management and community-based assessment (Sinclair and Diduck 2016)

3. Integrating resilience thinking (Whitelaw and McCarthy 2016)

# 1. ‘Loopholes’ and project size

- Possible changes for CEA to be applied not only to ‘major projects’, but also smaller projects that have significant social, cultural and environmental implications

- Adequately accounting for clusters of projects
  - E.g. multiple run of river hydroelectric dams

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1. ‘Loopholes’ and project size

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3. Integrating resilience thinking (Whitelaw and McCarthy 2016)

# 2. From Consultation to Consent…

Taku River Tlingit First Nation *v.* British Columbia (Project Assessment Director), [2004] 3 S.C.R. 550, 2004 SCC 74

Haida Nation *v.* British Columbia (Minister of Forests), [2004] 3 S.C.R. 511, 2004 SCC 73

**SUPREME COURT OF CANADA**

**CITATION:** Tsilhqot'in Nation *v.* British Columbia, 2014 SCC 44, [2014] 2 S.C.R. 256

**DATE:** 20140626
**DOCKET:** 34986

# …From Consent to Participatory Co-Management and Reconciliation

Sḵwx̱wú7mesh Úxwumixw | Squamish Nation
Chiefs & Council

October 16, 2015

**On October 14, 2015 Squamish Nation Council voted to approve an Environmental Assessment Agreement for the proposed Woodfibre LNG facility project.**

**To be clear, this decision is only for the LNG facility project and not the pipeline project proposed by Fortis BC. Therefore, the decision to approve this Environmental Agreement is not an approval of the whole LNG project, only a conditional approval of part of it.**

Based on this decision the Squamish Nation has now issued an Environmental Certificate to Woodfibre LNG Ltd *("WLNG").*

# Reflections on the Future of CE Practice

1. ‘Loopholes’ and project size

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3. **Integrating resilience thinking (Whitelaw and McCarthy 2016)**

# 3. Integrating resilience thinking into CEA

- Committing CEA and EA to social, economic, cultural and environmental sustainability
- Relevant considerations for assessing resilience in a social-ecological system (Resilience Alliance 2010):
  - Describe the system (resilience to what, for whom)
  - Determine system dynamics
  - Identify interactions between component parts
  - Detail system governance
  - Act on the assessment

**Not just 'bounce back', but 'bounce forward'**

# We want to hear from you!

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www.unbc.ca/cumulative-impacts