



FRESHWATER CUMULATIVE EFFECTS AND ENVIRONMENTAL ASSESSMENT DECISION-MAKING

CUMULATIVE EFFECTS AND DECISION-MAKING

“a change in the environment caused by multiple activities and natural processes that accumulate across space and time” (CCME, 2014)

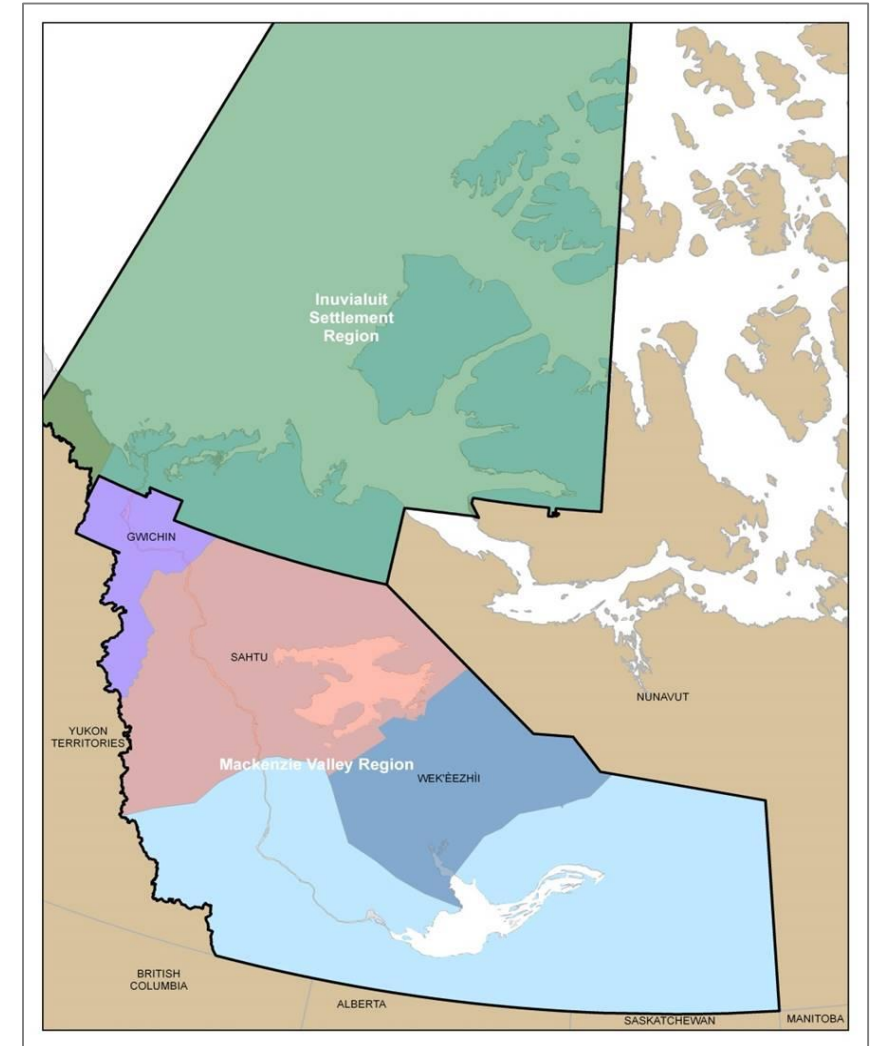
- Effective relationship between regional/watershed CEA and EA

“Much has been said and written on how to do a ‘good’ cumulative effects assessment. However, not much has been said or written on how to use the results of cumulative effects assessment to ‘make a good decision’”

(Hegmann & Yarranton, 2011, 486)

MACKENZIE VALLEY, NWT

- *Mackenzie Valley Resource Management Act*
- Cumulative Impact Monitoring Program (CIMP)
- Priority valued components
 - Freshwater focus



MACKENZIE VALLEY, NWT

- NWT Environmental Audits (2010; 2015)
 - Weak connection between cumulative effects monitoring and EA
 - Is the information generated meeting decision-maker needs?



DATA COLLECTION

- Document review
 - 36 Reports of EA since the implementation of MVRMA (1998)
- Semi-structured interviews
 - EA Review Board (decision-makers)
 - Land and Water Board (regulators)
 - Interveners
 - Monitors (CIMP)



Yellowknife, NWT. July 2016, photo taken by Lauren Arnold

Variable Understandings And Processes

- Consistent recognition of legal requirements
- Generalized and limited discussions
- No consistent definition or approach for cumulative effects among organizations

“everyone talks about it [cumulative effects] but when you sit someone down and you ask well what is one, is this one here, they will say well I don’t know.”

Responsibility And Leadership

- There is no organization specifically sees the assessment and analysis of cumulative effects as part of their mandate, jurisdictions, and/or abilities
 - CIMP does not comment on individual EA processes

“our biggest challenge is that no one is really doing it.”

Data Deficiencies

- Availability, compatibility, and quality challenges

“There is an overall lack of coordinated environmental baseline information...” (EA01-004, 169).

“This environmental assessment uncovered no work done on cumulative effects...for the past decade...” (EA0607-002, 97).

Data Deficiencies

- Availability, compatibility, and quality challenges
- “... the gaps that we have and the information that sometimes proponents and developers send to us cannot really be used to build a cumulative impact assessment for that specific area.”

Information Deficiencies: How much is too much?



“...part of it is a scientific question, what is going to happen and then the other part is, is that ok? And that is not a scientific question that is a values question...trying to get useful qualitative descriptions of a reasonable limit of acceptable change is hard.”

Information Deficiencies: How much is too much?



“the notion of it being safe to drink does not necessarily line up with regulators notions of safety”

- Relationship between data and information

“...we can get all the [data] we want but we can’t do that much with it unless an [intervener] or someone says that they care, and it matters, and connects those dots, between that value-based acceptability [information] and the evidence that is needed to support those decisions.”

- First Nations and capacity

“I would give a resounding “no” on my confidence in the amount of baseline and our ability to get through the data when it is presented to us.”

Scope Of Decision-making

- Regional concerns – project level decisions

“...normally if you are using the water you just care how clean the water is or how clean the water isn't, not whether it was company x, company y, or company z that polluted it...”

“...this is always industry's argument...if I am the 10th entrant into this, the cumulative or the incremental effect of my project is small, but if my project is the one that pushes some contaminant level over the edge I shouldn't have to be the only one responsible for it.”

MOVING FORWARD

- Regional initiatives are important, but scaling up monitoring is not sufficient
- Leadership and coordination at the watershed and the project level
- Improving data availability
 - Data challenges are persistent within regional CEA
 - Guidelines, data standards, and monitoring priorities
- Supporting information
 - Clarifying decision-maker needs
 - Improving capacity



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