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Lessons from cumulative effects assessment and management initiatives on the North Pacific Coast of British Columbia

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Speaker
Rebecca Martone, John Bones, Steve Diggon, Stuart Crawford, Maya Paul, and Gord McGee

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Lessons from Cumulative Effects Assessment, Monitoring and Management Initiatives on the North Pacific Coast of British Columbia

Rebecca Martone | Marine Biologist
Ministry of Forests, Lands and Natural Resource Operations
Province of British Columbia

Salish Sea | Seattle | April 5 2018
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Janine Lemire – Gitga’at First Nation

Sarah Duggan – Ministry of Energy, Mines and Petroleum Resources

Quinton Ball – Kitsumkalum First Nation

Anna Usborne – Metlakatla First Nation

James Herbert – Gitxaala First Nation

Jessica Hawryshyn – Metlakatla First Nation

Ethan Griesbach - North Coast-Skeena First Nations Stewardship Society

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Caroline Butler – Gitxaala First Nation

Mike Jacobs – Haisla First Nation

Candice Wilson – Haisla First Nation

John Bones – Nanwakolas Council

Karen Topelko - Ministry of Forests, Lands, and Natural Resource Operations and Rural Development

Steve Diggon – Coastal First Nations – Great Bear Initiative

Kristin Worsley Ministry of Forests, Lands, and Natural Resource Operations and Rural Development

Gord McGee – Central Coast Indigenous Resource Alliance

Romney McPhie – MaPP
Marine Plan Partnership
- Collaboration between Provincial Government and 17 First Nations
- Regional Action Framework and 4 subregional marine plans
- Goals:
  - Protect marine environment;
  - Promote sustainable economic development;
  - Support coastal community well-being
Environmental Stewardship Initiative: North Coast Region
- 4 Regional Stewardship Forums

North Coast Regional Stewardship Forum
6 First Nations in North Coast (Gitga’at, Gitxaala, Haisla, Kitselas, Kitsumkalum, & Metlakatla)
- Scope:
  - Ecosystem Assessment and Monitoring
  - Ecosystem Restoration and Enhancement
  - Ecosystem Research and Knowledge Exchange
  - Stewardship Education and Training
Why is Cumulative Effects a Priority?

- Northern Shelf Bioregion is physically and ecologically complex and supports a range of ecosystem types
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• Wide range of economic activities occur: Commercial fisheries, processing, logging, port activities, rec fishing and tourism. These activities are also important to the wellbeing of coastal communities.
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• Wide range of economic activities occur: Commercial fisheries, processing, logging, port activities, rec fishing and tourism. These activities are also important to the wellbeing of coastal communities

• Currently subject to intensive development pressure: LNG, port development and expansion, oil export, renewable energy.

• Proposed projects are assessed project by project, not in a sufficient way to assess cumulative effects
CUMULATIVE EFFECTS ASSESSMENT FRAMEWORK (WILSON 2017) (DRAFT)

Foundation
1. Values
2. Indicators
3. Triggers

Assessment
4. Current condition
5. Future Scenario(s)

Management
6. Informing decisions
7. Responses

Monitoring
8. Indicator monitoring
9. Effectiveness monitoring

Adaptive management
CUMULATIVE EFFECTS ASSESSMENT ACHIEVEMENTS (ESI AND MAPP)

1. Draft Cumulative Effects Assessment Framework completed;
CUMULATIVE EFFECTS ASSESSMENT ACHIEVEMENTS (ESI AND MAPP)

1. Draft Cumulative Effects Assessment Framework completed;
2. Foundation Phase initiated:
33 Values identified by First Nations and local communities through multiple phases of engagement;
33 Values identified by First Nations and local communities through multiple phases of engagement;

- Identified and engaged collaborators to advance this work: ESI

<table>
<thead>
<tr>
<th>MaPP Yr 4 Implementation Focus</th>
<th>Foundation</th>
<th>Assessment</th>
<th>Management</th>
<th>Monitoring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aquatic Habitat (Skeena Estuary) Water Quality Marine Vegetation</td>
<td>ESI focus</td>
<td>ESI focus</td>
<td>MaPP focus</td>
<td>ESI Skeena/ MaPP NC Plan Area</td>
</tr>
<tr>
<td>Access to Resources</td>
<td>ESI focus</td>
<td>ESI focus</td>
<td>MaPP focus</td>
<td>MaPP focus</td>
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<tr>
<td>Salmon</td>
<td>ESI focus</td>
<td>ESI focus</td>
<td>MaPP focus</td>
<td>MaPP focus</td>
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<tr>
<td>Food Security</td>
<td>MaPP focus</td>
<td>MaPP focus</td>
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<td>MaPP focus</td>
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<tr>
<td>Economic Access</td>
<td>MaPP focus</td>
<td>MaPP focus</td>
<td>MaPP focus</td>
<td>MaPP focus</td>
</tr>
</tbody>
</table>

Dark text indicates a primary area of focus and greyed text indicate a secondary area of focus.
Identified/drafted broad objectives for 3 values:

- Aquatic Habitat: Estuaries
- First Nations Access to Resources
- Pacific Salmon

e.g., Aquatic Habitat: Estuaries value

“Protect and restore habitats and ecosystem function for species that are highly valued for their ecological and cultural significance”
Initiated development of Conceptual Models of system for 2 values (Estuaries & FN Access to Resources)
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Identified a suite of potential indicators for *Estuaries* value (43 pressure indicators; 59 state indicators)
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Identified a suite of potential indicators for Estuaries value (43 pressure indicators; 59 state indicators)

Created a draft portfolio of indicators based on a set of criteria, relevance to management, number and intensity of pathways, and broad vs. specific

13 state indicators:
- 8 abiotic (e.g., Turbidity; Nitrate Concentrations)
- 5 biotic (e.g., Native eelgrass extent; Native fish diversity)

9 pressure indicators (e.g., Permitted waste discharge; Dredging areas and extent)
CUMULATIVE EFFECTS ASSESSMENT ACHIEVEMENTS (ESI AND MAPP)

1. Draft Cumulative Effects Assessment Framework completed;

2. Foundation Phase initiated:
   - Initial values identified
   - Draft state and pressure indicators identified;
   - Triggers and benchmarks, in progress;
CUMULATIVE EFFECTS ASSESSMENT ACHIEVEMENTS (ESI AND MAPP)

1. Draft Cumulative Effects Assessment Framework completed;

2. Foundation Phase initiated:
   - Initial values identified
   - Draft state and pressure indicators identified;
   - Triggers and benchmarks, in progress;

3. Assessment phase initiated:
   - Draft current condition protocol, in progress;
4. Management Phase initiated:
   - Governance arrangements and TOR developed (MaPP);
   - Management Reporting structure, in progress;

**MaPP NC CE Governance Plan**
CUMULATIVE EFFECTS ASSESSMENT ACHIEVEMENTS (ESI AND MAPP)

4. Management Phase initiated
   ▶ Governance arrangements and TOR developed (MaPP);
   ▶ Management Reporting Structure, in progress;

5. Monitoring Phase initiated:
   ▶ Indicator monitoring program, in progress;
LESSONS LEARNED

- Multi-jurisdictional space with overlapping and distinct responsibilities requires clear governance arrangements
  - Build off what is there if possible (momentum and trust)
  - Avoid and/or mitigate confusion / controversy through keeping products ‘implementable’ via respective authorities – jurisdictional clarity
LESSONS LEARNED

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  - Build off what is there if possible (momentum and trust)
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- Match Scope with existing capacity and budget
  - High degree of internal and external coordination within and across processes
  - Requires a high degree of human resource and fiscal management;
  - Requires technical expertise (lends credibility and ensures consistency)
  - Don’t underestimate capacity and time required from technical team, communities, and decision makers
LESSONS LEARNED

- Ensure relevance and buy-in through community engagement
  - Carve out a significant portion of budget to meaningfully engage;
  - Include meaningful engagement in work plans
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  - Everyone, including contractors, come in with their own perspectives and jargon
  - Can slow down technical work if scope isn’t clear
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- Plan for the unexpected
  - Recognize timelines and prepare for delays
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- Clarify objectives, scope and terminology
  - Everyone, including contractors, come in with their own perspectives and jargon
  - Can slow down technical work if scope isn’t clear
- Plan for the unexpected
  - Recognize timelines and prepare for delays
- Ensure process & end products are adaptable, nimble and resilient
Key Next Steps

- Implement MaPP CEF framework for 4 initial values;
- Better integrate similar initiatives - efficiency;
- Engage federal government on shared interests;

THANK YOU

Rebecca Martone | Marine Biologist | Marine and Coastal Resources Group
Province of British Columbia

www.mappocean.org