

Overview of the Howe Sound Cumulative Effects Pilot Project



Howe Sound Community CE Webinar

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Presentation Topics

- Project Background
- Project Deliverables
- Overview of Key Findings
- Lessons Learned

Project Background (Project Origin)

- In 2013, local governments expressed concerns about the lack of a coordinated management vision and the potential of cumulative impacts from new developments.
- In 2014/15, the province collaborated with the Howe Sound Community Forum to tailor a trial cumulative effects project to the Howe Sound area.
- In 2016, the province began the implementation of the Howe Sound CE Project.



Project Background (Project Area & Values)

Provincial CE Values

Aquatic Ecosystems



Grizzly Bear



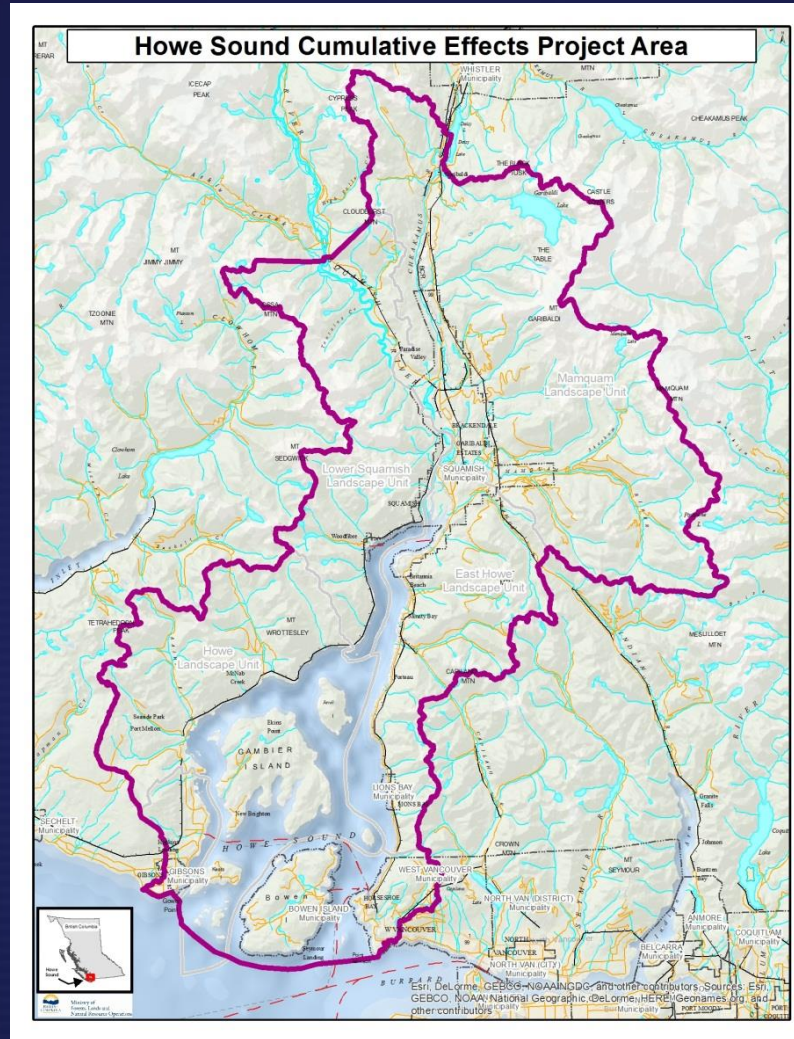
Old Growth



Forest Biodiversity



Delayed Release



South Coast CE Values

Roosevelt Elk



Marbled Murrelet



Forest Visual Quality



Howe Sound Online Visual Tool (Key Content)

Use the link button to the right to print the entire story map.



Howe Sound Cumulative Effects Project: Aquatic Ecosystems - Watershed Condition

Current Condition Assessment

[Assessment Summary](#)

[Value Description](#)

[Management Objectives](#)

[Assessment Procedures](#)

[Limitations](#)

[Assessment Results](#)

[Initial Interpretation](#)

[Related Links](#)

Maps

[Indicator: General Road Density](#)

[Indicator: Road Density < 100m from a Stream](#)

[Indicator: Road Density on Unstable Slopes](#)

[Indicator: Stream Crossing Density](#)

[Indicator: Riparian Disturbance](#)

[Indicator: Peak Flow Index](#)

[Supplemental: Roads and Land Jurisdiction](#)

[Supplemental: Forest Age and Watersheds](#)

[Supplemental: Protected Lands and Timber Harvesting Land Base](#)

[Supplemental: Land Base Ownership and Watersheds](#)

Management Considerations

[Potential Management Response \(Rubble Cr. Watershed Unit\)](#)

[Potential Management Response \(Squamish R. to Brackendale Watershed Unit\)](#)

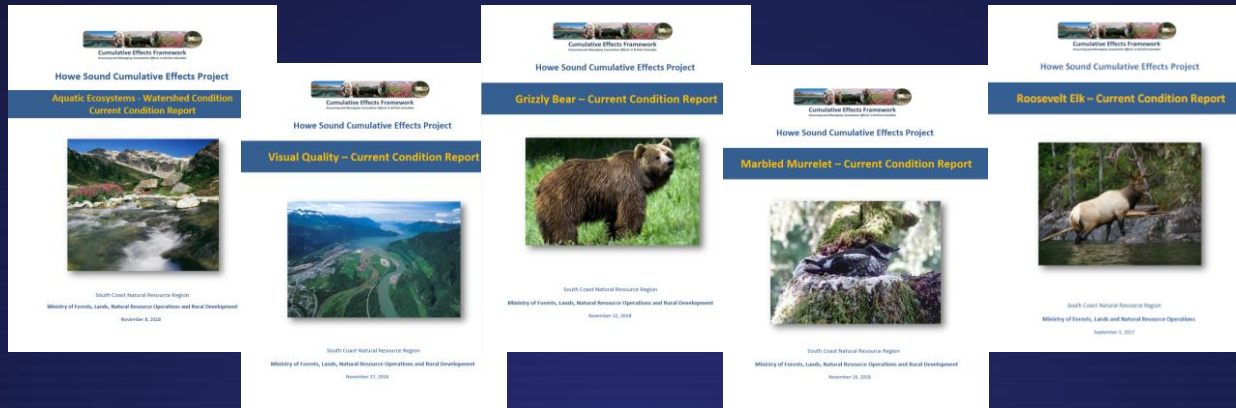
[Potential Management Response \(Mamquam R. Watershed Unit\)](#)

Data

[Link to Assessment Data](#)



Howe Sound CE PDF Reports

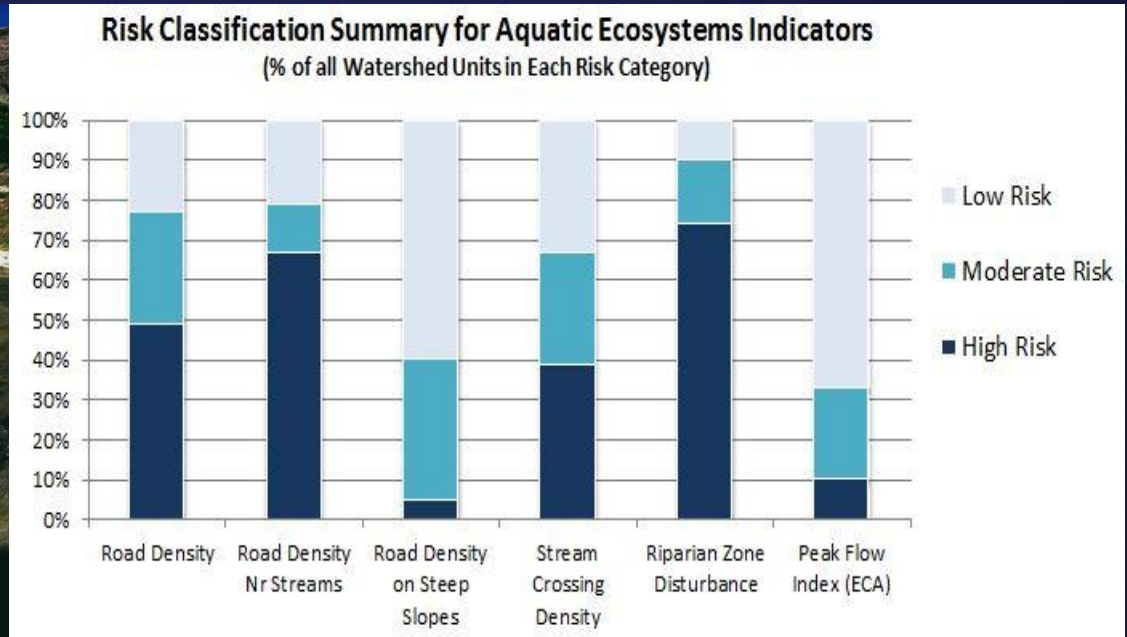


- The pdf reports provide additional background information on the CE value and CE Protocol (the Assessment approach)
- The reports are tailored to the Howe Sound bioregion and are static reports
- Future CE assessment will not be publicly communicated through static reports but through interactive online regional mapping tools that can cover larger areas and be updated more easily.

So What Were the Key Assessment Findings?



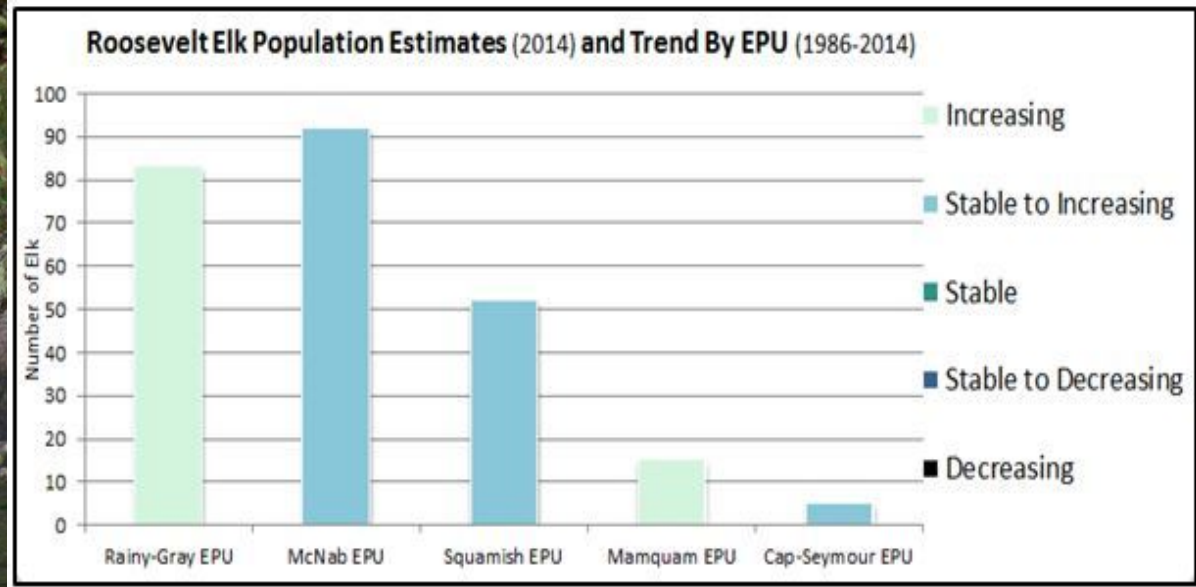
Aquatic Ecosystems- Watershed Condition (Key Findings)



- Watersheds areas with higher road densities are showing a higher risk of impact to aquatic ecosystems
- Most of the watersheds in the project area are showing a low impact to their overall hydrological function due to significant forest cover

Management: Consider forest age distribution & road management best practices in priority watersheds to mitigate downstream impacts

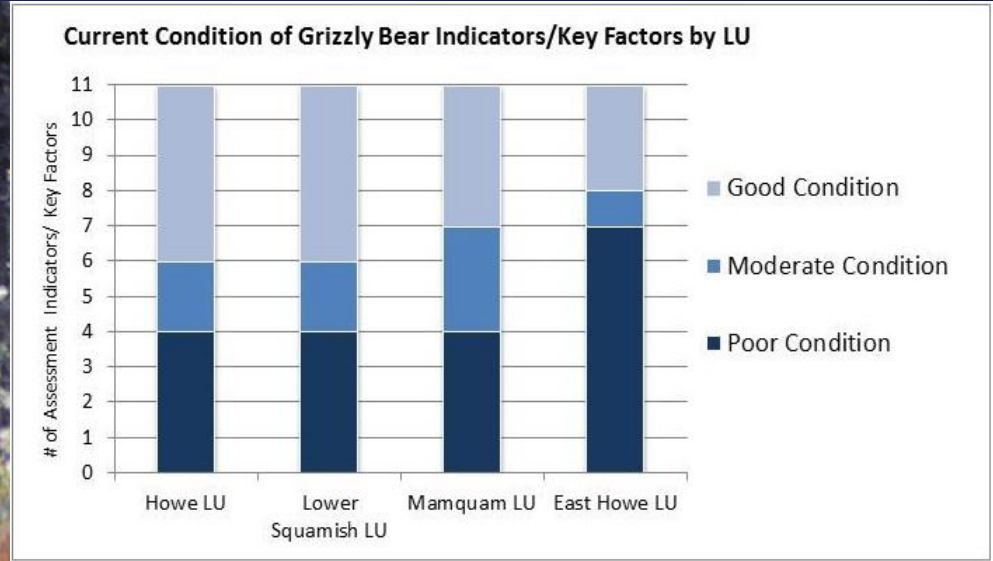
Roosevelt Elk: (Key Findings)



- Elk populations are trending well as they are “Increasing “or are “Stable to Increasing” in the area’s 5 Elk Population Units (more than 200 elk in area today)
- There is a “low risk” to elk population sustainability on the western side of Howe Sound but a “high risk” for the other EPUS based upon the 7 indicators

Management: Consider more balanced elk forage/cover interspersation through management of forest age distribution in priority EPUs

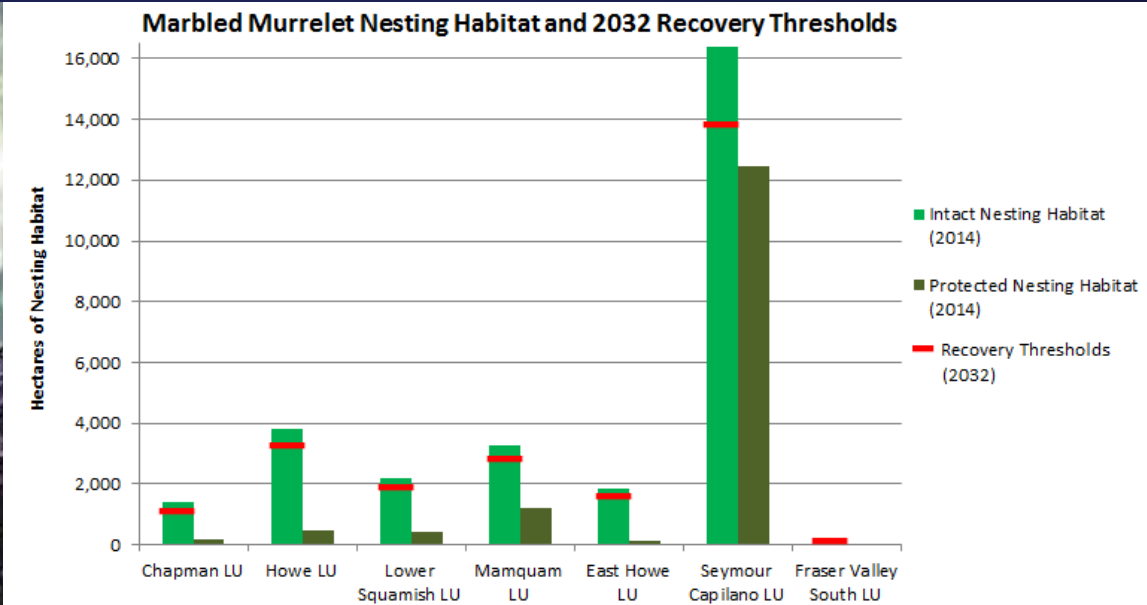
Grizzly Bear: (Key Findings)



- Overall there are mixed conditions to support Grizzly Bear in the project area (Bear density is generally quite low: 0-10 bears/1000km²)
- The conditions for Grizzly Bear persistence are more favourable in the Squamish and Cheakamus River areas west of the Sea-to-Sky highway

Management: Consider human access management to important seasonal habitats west of S2S highway & population connectivity via natural corridors

Marbled Murrelet: (Key Findings)



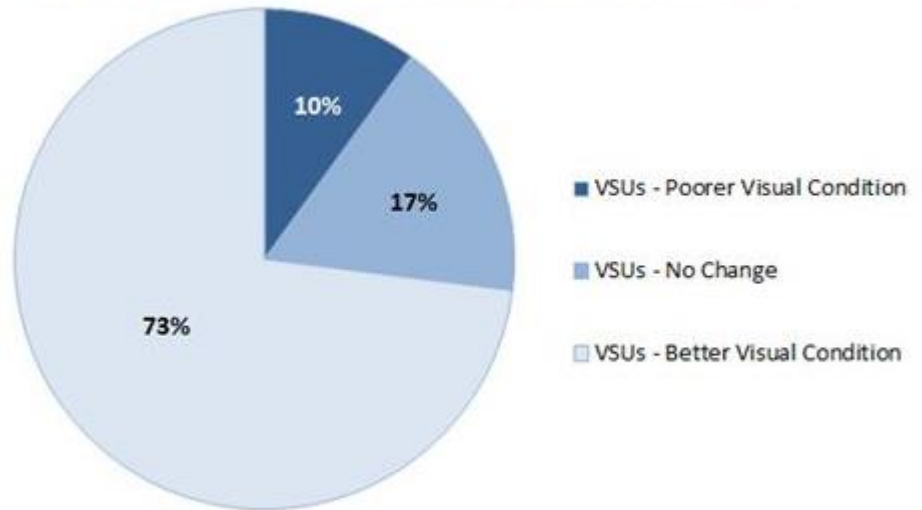
- The LUs in the project area show a “low” to “moderate” risk of exceeding nesting habitat depletion thresholds by 2032 (85% of 2002 modeled nesting habitat)
- The actual amount of suitable nesting habitat in the project area is limited and most of it is not protected and occurs at higher elevations

Management: Consider old-growth recruitment and protection at lower elevations near known marine forage areas in Howe Sound

Forest Visual Quality: (Key Findings)



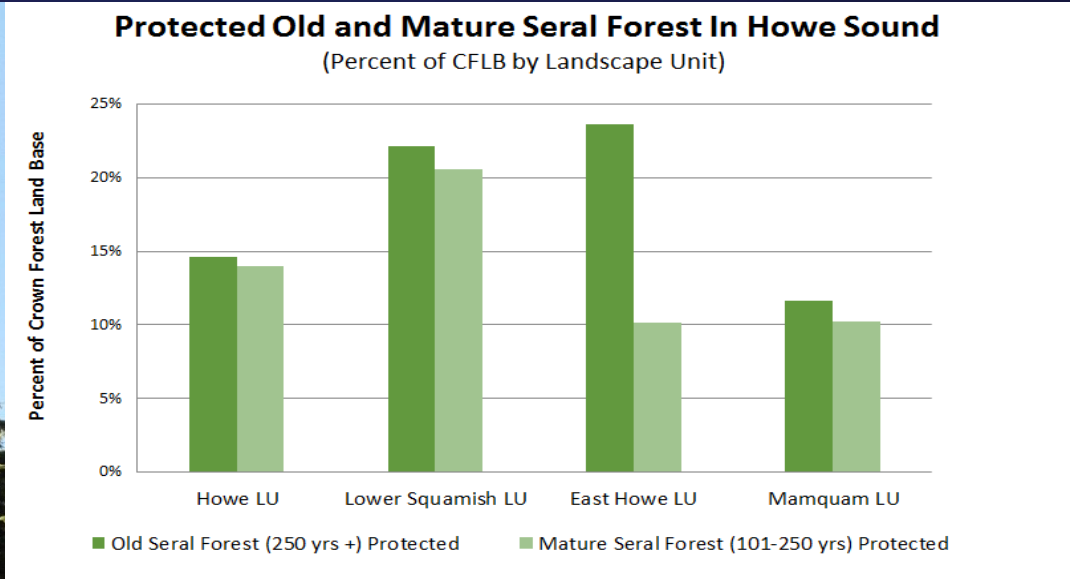
Visual Condition Trend for 89 VSUs (1995-2017)



- Overall, 73% of the VSUs in the project area have a better forest visual condition in 2017 than they did in 1995
- 91% of the 89 VSUs are estimated to be achieving their visual quality objectives

Management: Consider validating map-based results with new field-based visual quality assessments in the Howe Sound area

Old-Growth Forest: (Key Findings from draft report)



- About 29% (31,520 ha) of the Crown Forest Land Base in the project area is made up of old-growth forest and about half of this is protected
- There are 429 legal OGMAs (12,219 ha) that are composed of 60% old-growth and 33% mature forest stands (% of mature forest higher in lower elevation OGMAs)

Management: Current old-growth recruitment from existing OGMAS and new WHAs will improve old-growth retention/protection over time

Lessons Learned

- The current condition assessment results from this project are to be viewed as coarse filter information and may not be well suited for smaller site-specific applications.
- The current condition assessments require local/expert interpretation and the consideration of trend information before being used for management direction or decision-support
- Looking collectively at some key CE values and indicators along with some standard data layers can paint a general picture of the ecological health at a broad scale.
- This pilot project has inspired us to develop a new generation of more advanced regional assessment tools that are easy to use, update and share publicly.