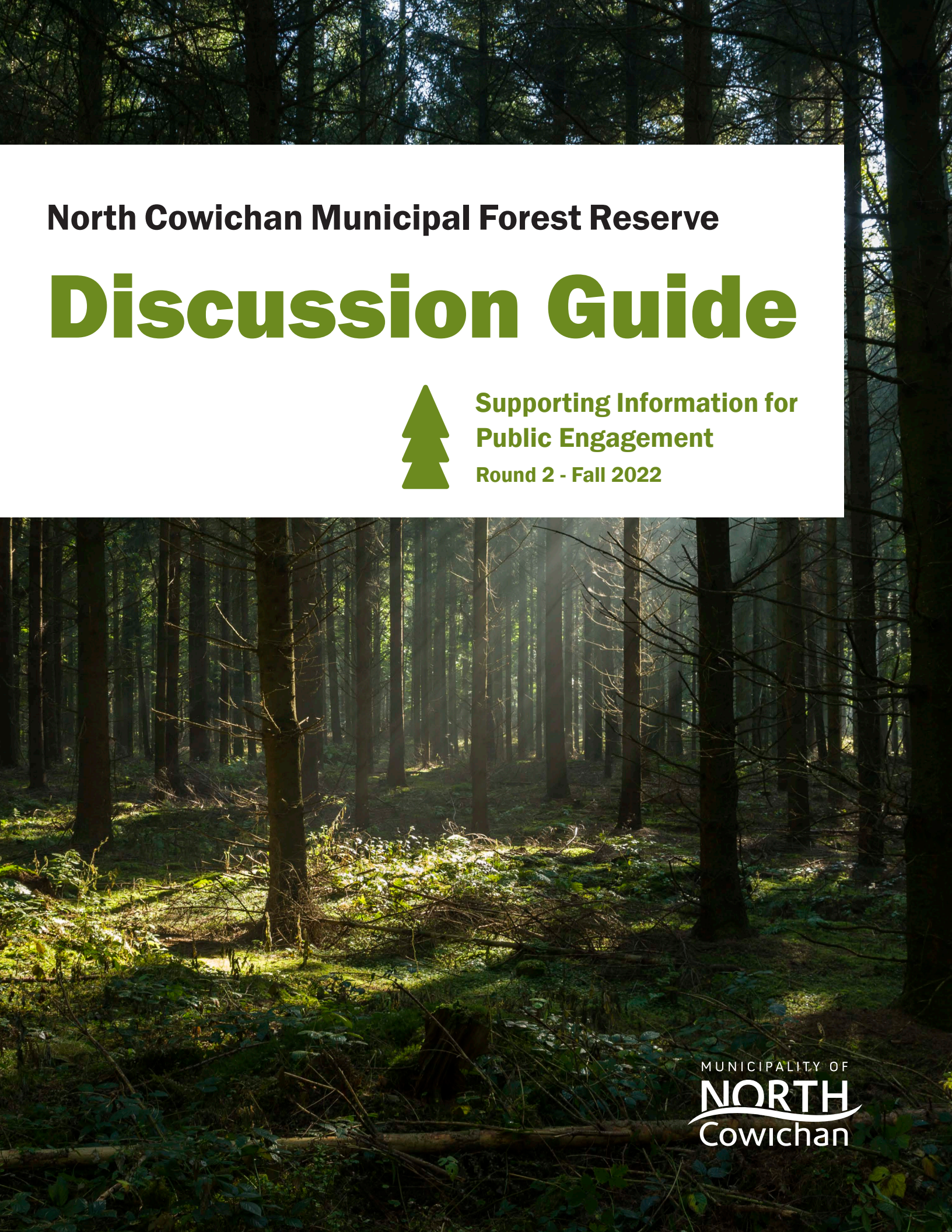


North Cowichan Municipal Forest Reserve

Discussion Guide

Supporting Information for Public Engagement

Round 2 - Fall 2022

MUNICIPALITY OF NORTH Cowichan

The Municipality of North Cowichan would like to thank the Engagement Working Group for their ongoing contributions to the community engagement materials and process.

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MUNICIPAL FOREST RESERVE

MUNICIPALITY OF NORTH Cowichan



Introduction

Introduction

In response to public interest in harvesting activities and requests for a review of forest management, Council dramatically limited harvesting within the Municipal Forest Reserve in 2019 and directed two initiatives: 1) undertaking public engagement, both deep and broad, on the future management of the Municipal Forest Reserve and 2) a technical review of forest management options and scenarios. The UBC Partnership Group (a consortium of forestry academics who have expertise in various technical aspects of forestry and forest management) was contracted for the technical review and LEES+Associates was contracted to lead the public engagement process.

So far, there has been one round of public engagement. A summary of what the public said was provided to Council and was considered in the technical review. The technical review was completed by the UBC Partnership Group and presented to Council in October 2022. Now, there is an opportunity for the community to provide feedback on the scenario options. Feedback heard during this round of public engagement will be presented to Council in early 2023 as part of a 'what we heard' report. The UBC Group will use the feedback to adjust the potential forest management scenarios (if necessary) and present these to Council for a decision. A detailed forest management plan will then need to be developed to support the preferred scenario.

Purpose of this Document

This document was developed to provide North Cowichan residents with basic information and context as they participate in the second round of engagement on the future of the Municipal Forest Reserve. There are many other sources of information available, both from the Municipality of North Cowichan and from other organizations. We have provided links to some important documents, but it is not exhaustive. We encourage you to explore this discussion guide, the discussion guide from Round 1 Engagement, and to visit the Connect North Cowichan website at connectnorthcowichan.ca/mfr for more information or to ask a question.

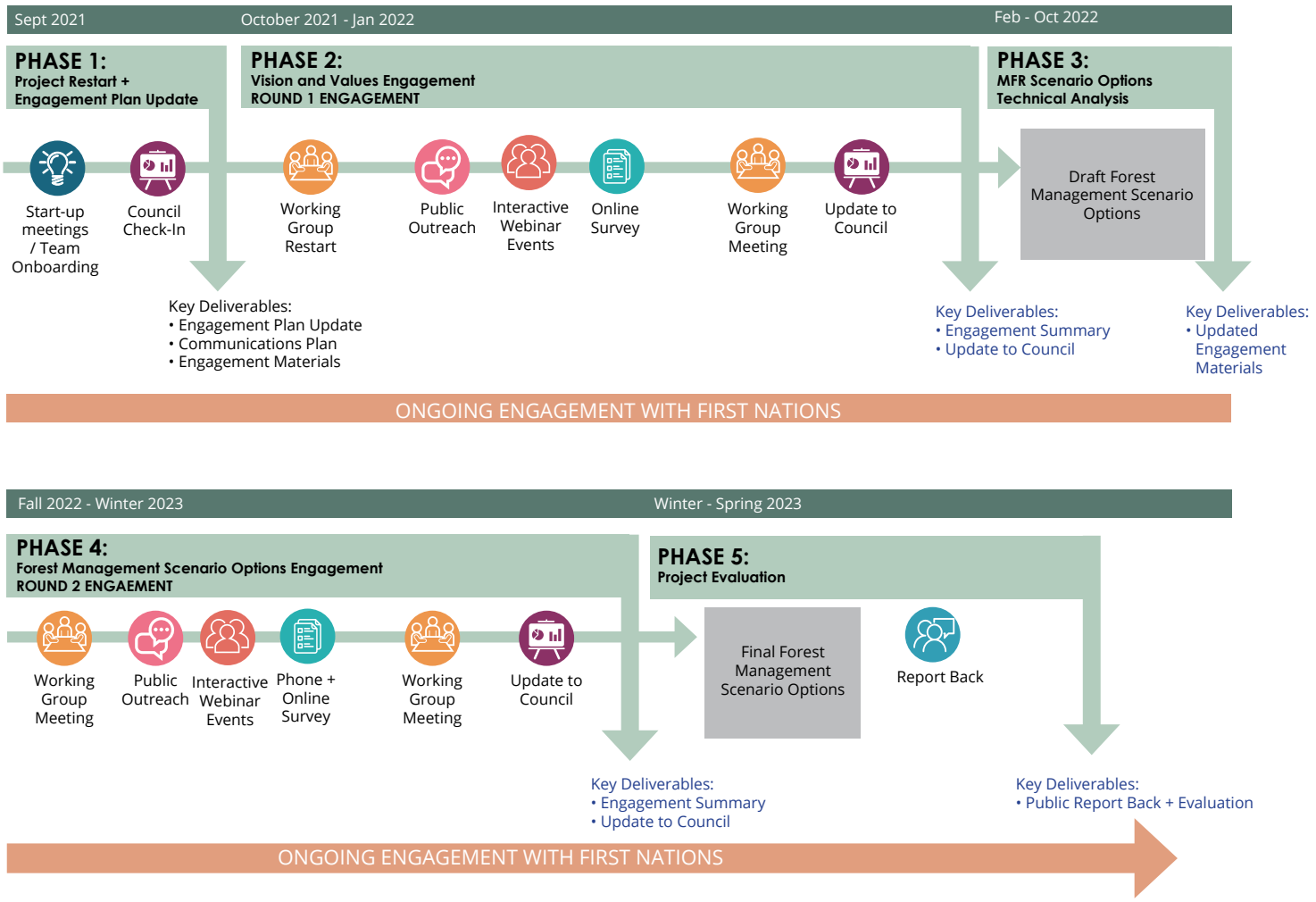
Territory Acknowledgment

The Munipality of North Cowichan respectfully acknowledges that the Municipal Forest Reserve is located on the traditional and unceded lands of Cowichan Tribes, Halalt First Nation, Stz'uminus First Nation, Penelakut Tribe, and Lyackson First Nation.

First Nations Engagement

Separate from the public engagement process and starting in 2020, the Municipality of North Cowichan and the Quw'utsun Nation undertook government-to-government discussions. In August 2021, these discussions resulted in the signing of a Memorandum of Understanding (MOU) outlining the establishment of a Municipal Forest Reserve (MFR) Working Group to share information in relationship to the stewardship and use of the MFR for the benefit of the community. First Nations interests within the project are also included in discussions through their representation on the Forest Advisory Committee.

Municipal Forest Plan Review Process



MUNICIPAL FOREST RESERVE

MUNICIPALITY OF NORTH Cowichan



Round 1 Engagement Results

What We Did

The first round of engagement gathered community input around the range of values and perspectives concerning the Municipal Forest Reserve and this input informed the scenario options for forest management. Events and opportunities for participation were offered between March 2020 and December 2021.

Total participation in Round 1: 1,275 public interactions

110 participants in **4** online workshops

1,145 online survey responses

19 interviews with stakeholders

4 Engagement Working Group Meetings

Outreach

This project included significant community outreach including:

11 print ads in Cowichan Valley Citizen, Cowichan Valley Voice, and Chemainus Valley Courier

3 updates to project email list

9 social media posts and ads on Facebook and Instagram

8 posts on North Cowichan's Twitter account

2 news articles in Cowichan Valley Citizen and The Discourse

For more information about the project visit: connectnorthcowichan.ca/mfr

What We Heard

The thoughtful input from participants reflected the deep care people share for their community and the forest reserve in particular. There was agreement that the MFR is a valued community asset, and many are in favour of an approach to forestry that shifts the primary management focus of the MFR toward the ecological and recreational benefits.

Key Takeaways From Round 1 Engagement:

- The importance of protecting and enhancing the **ecological benefits** of the MFR was a strong theme. Many expressed concern with the health of the forest, and indicated that the **ecosystem services** provided by the forest outweigh the potential revenue from harvesting.
- Many expressed that the MFR is a valued **recreational asset** and are in favour of forest management that supports hiking, biking, walking, ATVing, and horseback riding. There was also significant support for recreation as it relates to **tourism**.
- Many community members expressed concern about harvesting practices, particularly the impact of **clear cutting.** Some respondents feel that cut blocks negatively impact views on the mountains, recreational experiences, and the ecological health of the forest.
- Some participants are supportive of the current management of the MFR. Of those in favour of harvesting, many are supportive of a shift towards **eco-forestry** and more sustainable forms of harvesting.
- Concern about **climate change**, and the impacts of wildfires, flooding and extreme weather emerged as a key theme. Many expressed the importance of managing the forest to increase resiliency to climate change.
- We also heard a wide range of perspectives on the **cultural significance** of the MFR. Many noted the importance of the forest for recreation, access to nature, health and well-being as well as education. Some respondents also expressed the importance of consulting the **Quw'utsun Nation** on the future management of the MFR.

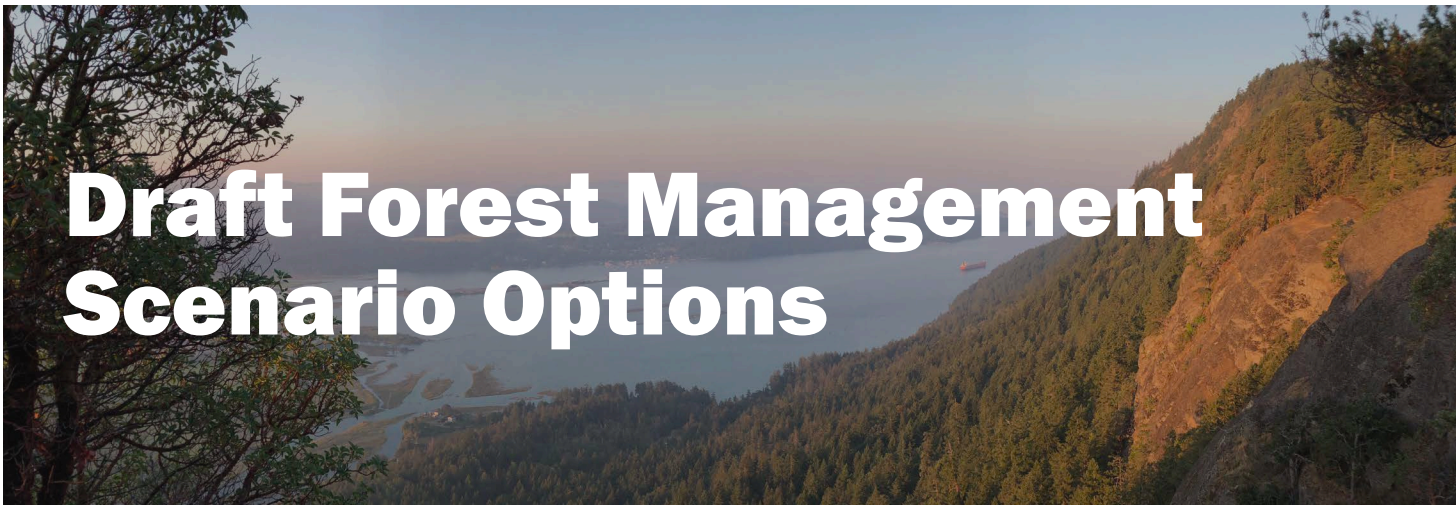
How Engagement Influenced This Work

Round 1 engagement results were used by the UBC Partnership Group to inform the development of scenario options for forest management. With a wide range of interests, it was important to start with the current state, but also to show the other end of the spectrum with a hands-off, conservation approach. There were also many participants in Round 1 who wanted to see what an eco-forestry approach might look like, so scenarios with reduced harvesting and active conservation were created.

Feedback also helped inform the decisions on which criteria and indicators were used to evaluate the scenario options. For example, there was strong interest in how revenue from carbon credits could be used to offset lost revenue from timber harvesting, so the potential for carbon credits was considered in all the scenarios. While the scenario options have each been evaluated and scored, there is still room to adjust how the trade-offs are evaluated.

MUNICIPAL FOREST RESERVE

MUNICIPALITY OF NORTH Cowichan



Draft Forest Management Scenario Options

Introduction

The UBC Partnership Group has created four draft scenario options that range from the "status quo" of a working forest with a focus on harvesting to a conservation focus with minimal management or human intervention.

The technical analysis was done using scientifically credible forest models that take a wide range of mapping data into consideration. The models look at the forest at a stand level, as well as across the forest as a whole. Key information that was used included:

- Forest stand types (tree species and overall age of the trees)
- Areas previously harvested
- Sensitive ecosystems and habitats
- Streams, water bodies, and watersheds
- Visually sensitive areas
- Protected and culturally important areas
- Trail networks (authorized)
- Property boundaries and roads

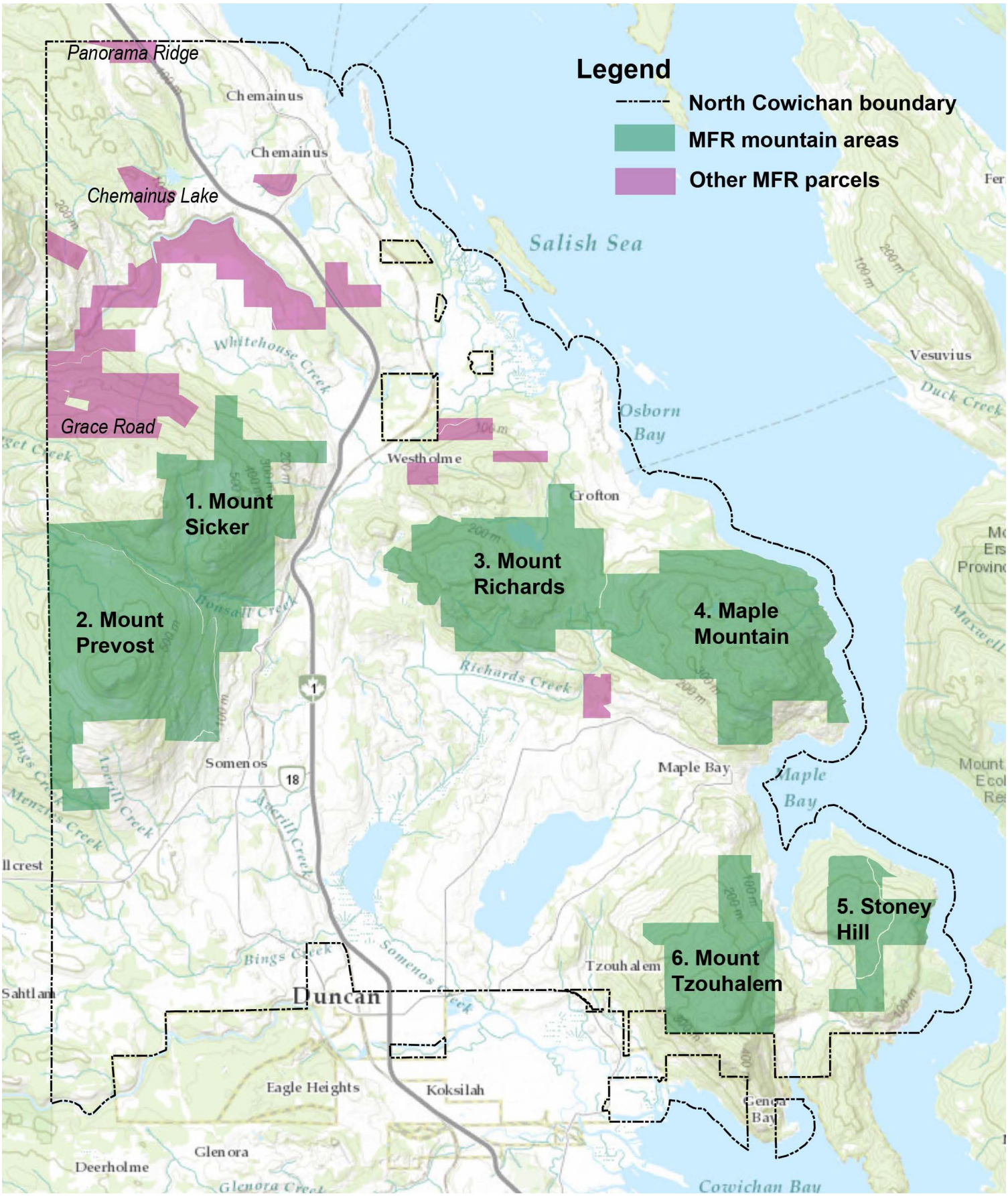
What is a forest stand? A forest stand is an area of trees that has consistent characteristics such as species, age, and condition, and is distict from adjacent areas of trees.

The UBC Partnership Group set up the four different scenario options and selected the most relevant criteria and indicators based on community input. Each scenario option shows what would happen over a 100 year time period if you made certain management decisions. However, they do not define exactly what would happen in any specific part of the forest. It is also important to note that not all considerations could be incorporated into the forest models, such as the impact to job opportunities and the impact to recreation revenue.

Purpose

The purpose of Round 2 of engagement is to gather feedback from the community on the scenario options. Feedback heard during this round of public engagement will be presented to Council in early 2023 as part of a 'what we heard' report. The UBC Partnership Group will use the feedback to adjust the potential forest management scenarios (if necessary) and present these to Council for a decision. A detailed forest management plan will then need to be developed to support the preferred scenario.

North Cowichan's Municipal Forest Reserve



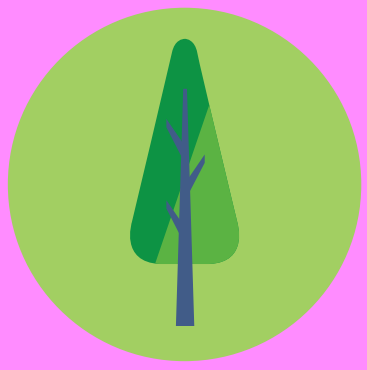
For more mapping information, please visit the interactive forestry map online at https://northcowichan.maps.arcgis.com/apps/webappviewer/index.html?id=2346f9fa5669451cad56966546c06239

1 Status Quo

This scenario represents a continuation of historical harvesting practices within the MFR based upon the past 25 years of data records. This scenario provides a valuable reference point for evaluating the other scenarios and establishes a baseline to help determine the potential development of carbon credits in other scenarios.

Key features of this scenario include:

- 17,500 cubic meters of timber harvested each year.
- Older stands are harvested first with the minimum age of 60 years old.
- At least 15% of the trees are retained in all the harvested blocks.
- In visually sensitive areas, there is retention of 35% or 55% to reduce visual impacts, but the visual quality goals are not met.
- Standard exclusion areas apply (riparian areas, along roads, etc.).
- No carbon credits will result from this scenario. This scenario serves as the baseline for achieving carbon credits in Scenarios 2, 3, and 4.



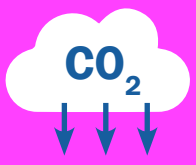
43.7 ha/yr

AVERAGE ANNUAL HARVEST

NET ESTIMATED REVENUE

$31.3 million

over 30 years



$0

over 30 years

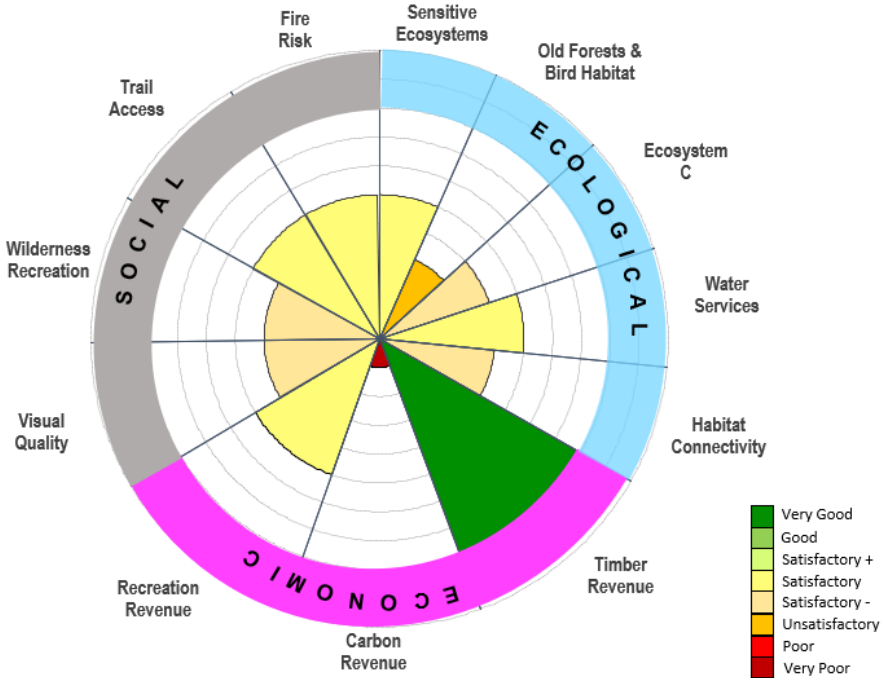
CARBON CREDITS



$31.4 million

over 30 years

TIMBER HARVEST



Graph showing how the Status Quo scenario was evaluated based on various criterion.

Ecological Score: 4.2/8

Economic Score: 4.7/8

Social Score: 4.5/8

Click the icon to watch the presentation by the UBC Partnership Group.

2 Reduced Harvesting

Annual timber harvesting in this scenario is reduced to ~40% of the historical harvesting rate compared to Scenario 1: Status Quo. The selection of stands and methods of harvesting will be designed to provide income and employment opportunities associated with timber harvesting while minimizing the impact of harvesting on visual aesthetics, recreation opportunities, and biodiversity.

Key features of this scenario include:

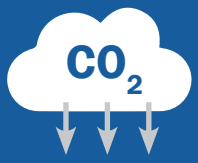
- 7,400 cubic meters of timber harvested each year.
- Harvesting areas would use variable retention, meaning small openings would be harvested instead of a more traditional cut block. At least 35% of the trees would be retained in each harvesting cut block.
- There may be increased harvest costs because of the increased retention and other technical considerations. There can be risks, such as greater windthrow (trees uprooted by wind), if variable retention is not done properly. Regeneration may also be slower because there is more shade.
- There is greater retention (50% or 80%) in some areas to meet the visual quality goals.
- Standard exclusion areas apply (riparian areas, along roads, etc.)
- The potential for revenue from carbon credits is modest.



20.3ha/yr
AVERAGE ANNUAL HARVEST

NET ESTIMATED REVENUE

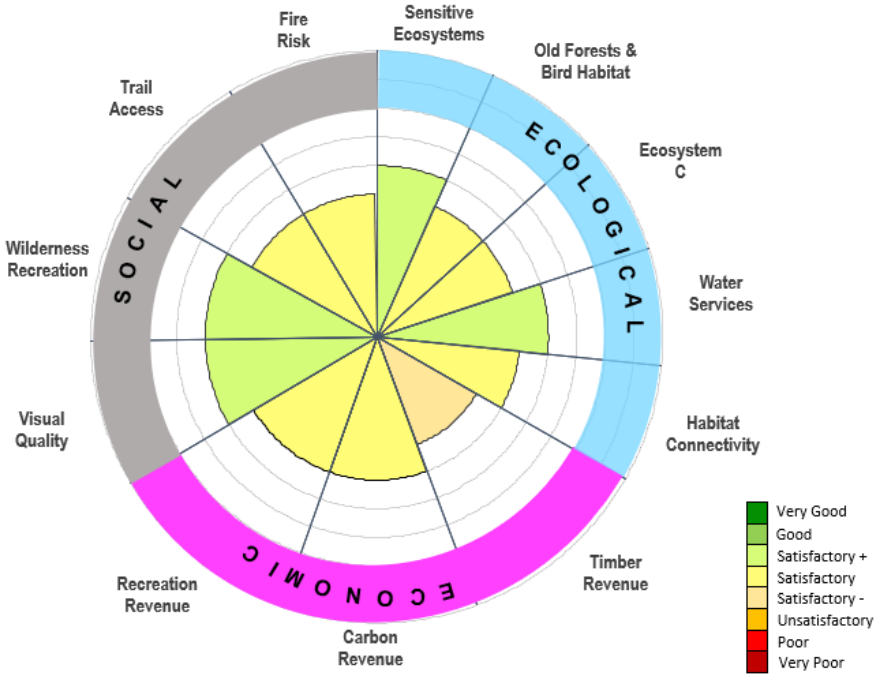
$30.7 million
by year 30





$22.2 million over 30 years
CARBON CREDITS

$8.5 million over 30 years
TIMBER HARVEST



Graph showing how the Reduced Harvesting scenario was evaluated based on various criterion.

Ecological Score: 5.4/8

Economic Score: 4.7/8

Social Score: 5.5/8

Click the icon to watch the presentation by the UBC Partnership Group.

3 Active Conservation

This scenario focuses on targeted harvesting only with a goal of restoring and enhancing biodiversity to help bring old forest habitat back more quickly than if no management activities were used.

Key features of this scenario include:

- 1,300 cubic meters of timber harvested each year.
- Harvesting could be done in two situations:
  - Harvest conifers in stands that traditionally would be more open woodland areas. This process would mimic natural fire cycles.
  - Thin some of the very dense 40-60 year old stands of Douglas fir to encourage more shrubs and understory and allow remaining trees to become larger faster.
- The result is forests with "old forest" characteristics faster than if no management was done.
- Costs are high to get to difficult areas, so the cost of harvesting is higher per cubic meter.
- The value of the timber harvested may not be maximized because the highest value trees may not be the ones removed.
- The opportunity for revenue from carbon credits is much higher than Scenario 1 and 2, but not as high as Scenario 4: Passive Conservation.



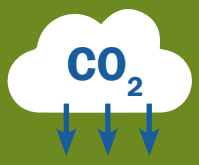
3.9ha/yr

AVERAGE ANNUAL HARVEST

NET ESTIMATED REVENUE

$35.1 million

over 30 years



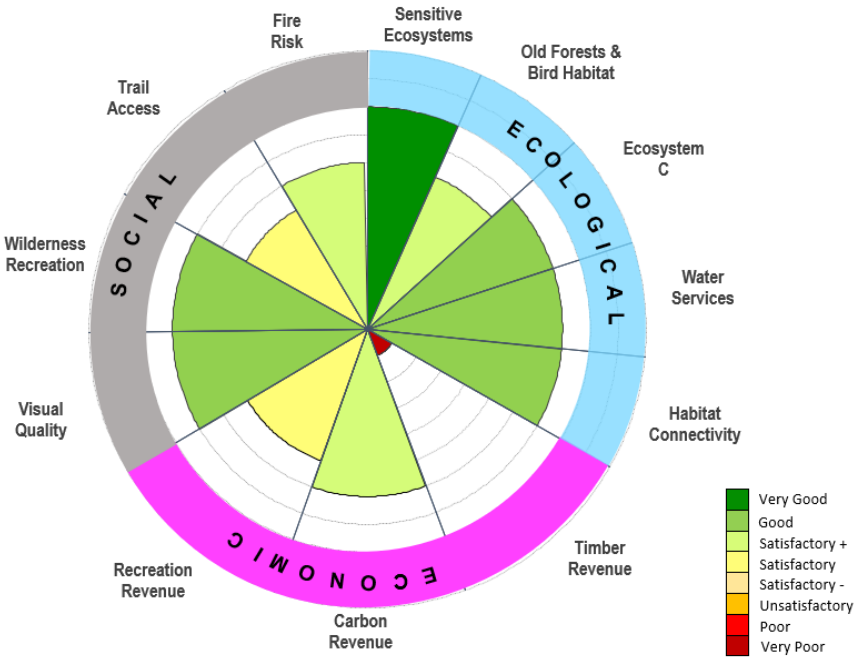


$36.3 million over 30 years

CARBON CREDITS

-$1.2 million over 30 years

TIMBER HARVEST



Graph showing how the Active Conservation scenario was evaluated based on various criterion.

Ecological Score: 7.0/8

Economic Score: 4.0/8

Social Score: 6.3/8

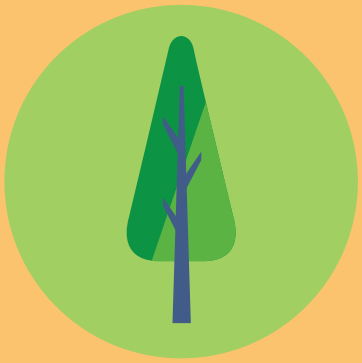
Click the icon to watch the presentation by the UBC Partnership Group.

4 Passive Conservation

The objective of this scenario is to let the forests within the MFR develop with minimal human intervention, letting natural processes take the lead in shaping the future forest conditions.

Key features of this scenario include:

- No standard harvesting each year. Harvesting would only be done for fire smart requirements or safety hazard issues, such as windthrow (trees uprooted by wind).
- This scenario option scores lower for Sensitive Ecosystems than Scenario 3 because there would not be any harvesting to maintain the historically more open woodlands.
- There would not be any management activities to encourage "old forest" characteristics, so those forest habitat benefits would take longer to occur than with the active management of Scenario 3.
- The costs would be lower than Scenario 3 because of the lack of consistent harvesting.
- This scenario performs the best in terms of carbon capture and protection of watersheds.
- The opportunity for carbon credits is the highest of the four scenario options.



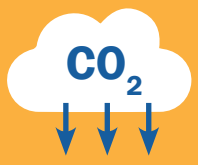
0 ha/yr

AVERAGE ANNUAL HARVEST

NET ESTIMATED REVENUE

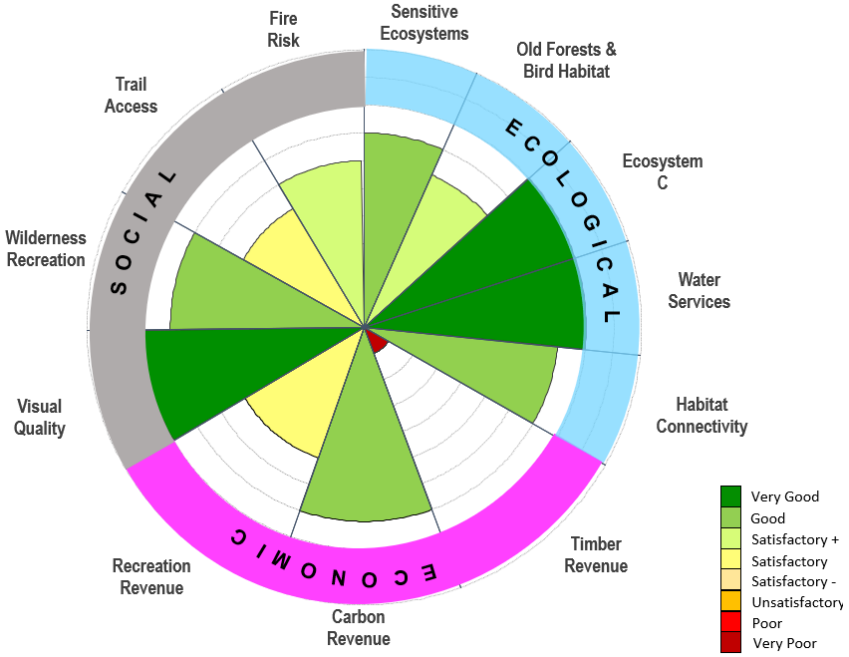
$39.6 million

by year 30





$39.6 million over 30 years	$0 over 30 years
CARBON CREDITS	TIMBER HARVEST



Graph showing how the Passive Conservation scenario was evaluated based on various criterion.

Ecological Score: 7.2/8

Economic Score: 4.3/8

Social Score: 6.5/8

Click the icon to watch the presentation by the UBC Partnership Group.

Scenario Option Evaluation

The following summarizes the average scores for each criteria category for each scenario option, as well as the average annual timber harvest and total revenue over the next 30 years. For more information on the criteria, see pages 13 and 14 in this guide.

1 Status Quo

This scenario represents a continuation of historical harvesting practices within the MFR based upon the past 25 years of data records.

Average annual harvest: 43.7 ha/year

Total estimated revenue over 30 years: $31.3million

Ecological Score: 4.2/8

Economic Score: 4.7/8

Social Score: 4.5/8

2 Reduced Harvesting

Annual timber harvesting in this scenario is reduced to ~40% of the historical harvesting rate (Scenario 1).

Average annual harvest: 20.3 ha/year

Total estimated revenue over 30 years: $30.7million

Ecological Score: 5.4/8

Economic Score: 4.7/8

Social Score: 5.5/8

3 Active Conservation

This scenario focuses on targeted harvesting with a goal of restoring and enhancing ecosystem conditions that promote biodiversity while providing some income from harvesting.

Average annual harvest: 3.9 ha/year

Total estimated revenue over 30 years: $35.1million

Ecological Score: 7.0/8

Economic Score: 4.0/8

Social Score: 6.3/8

4 Passive Conservation

The principal objective of this scenario is to let the forests within the MFR develop with minimal human intervention.

Average annual harvest: 0 ha/year

Total estimated revenue over 30 years: $39.6million

Ecological Score: 7.2/8

Economic Score: 4.3/8

Social Score: 6.5/8

Summary of Scenario Option Scores

The overall evaluation and scoring for each of the scenario options is shown side by side in the table below.

	1 Status Quo	2 Reduced Harvesting	3 Active Conservation	4 Passive Conservation
Ecological Criteria Score	4.2	5.4	7.0	7.0
Economic Criteria Score	4.7	4.7	4.0	4.3
Social Criteria Score	4.5	5.5	6.3	6.5
Average Score	4.5	5.2	5.8	5.9

The following are the key findings from the side-by-side evaluation:

- Scenarios 3 and 4 scored the highest for the ecological criteria.
- Scenarios 1 and 2 scored the highest in the economic criteria.
- Scenario 4 scored the highest in the social criteria.
- Scenario 4 also had the highest average score overall.
- Estimated revenue in the first 10 years is greatest in Scenarios 1 and 2, resulting in higher scores. However, total estimated revenue over 30 years is highest for Scenarios 3 and 4.

Financial Assumptions:

The financial model assumes 2% increase in net timber value per year. Costs of harvesting activities and timber prices were estimated based on the harvest systems and type, age, and value of the trees likely to be harvested in each scenario. Different harvesting approaches have different costs and the value of the timber harvested also varies.

The financial model assumes a 5% annual increase in carbon price, a start-up cost of $175,000 and annual maintenance of $20,000. The potential value of carbon credits was updated from the 2020 Carbon Feasibility Study to reflect current conditions based on market reviews for Improved Forest Management projects. The 2020 Carbon Feasibility Study and Q+A from 2020 is located at connectnorthcowichan.ca/mfr.

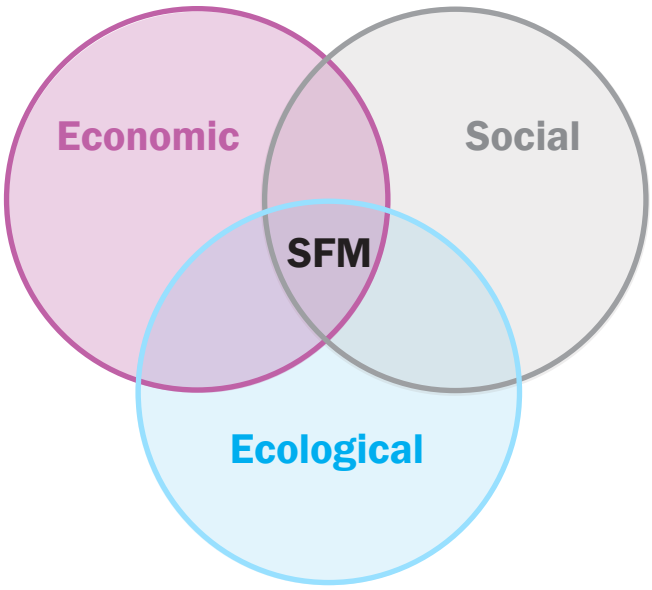


Criteria and Indicators

Overview

Criteria are the values associated with the forest such as revenue, sensitive ecosystems, water services, or wilderness recreation. The indicators are how each of those values can be measured. The technical review team used their professional experience, relating to BC regulations and standards that have been used in other areas. The input from the community also influenced which criteria were incorporated into the forest models. Not all values could be incorporated into the forest models due to lack of available data or the lack of certainty for some aspects. The criteria fall into three categories: Economic, Social, and Ecological because these are the three components of sustainable forest management.

Sustainable Forest Management (SFM)



Criteria and Indicators Summary

The following table summarizes the criteria and indicators used in the forest models to evaluate and compare the scenario options. For a more detailed explanation of these criteria and indicators, the presentation by UBC Partnership Group to Council on October 4, 2022 is available on the North Cowichan website.

Click the icon to watch the presentation by the UBC Partnership Group.



Criterion	Indicator
ECOLOGICAL	
Sensitive Ecosystems	Area of sensitive ecosystems impacted by harvesting
Protection/Enhancement of Mature & Old Forest and associated bird habitat	Area of protected or enhanced mature forests
	Area of protected or enhanced bird habitat
Ecosystem Carbon Storage / Emissions	Total carbon storage
	Total reduction in carbon emissions
Water Services	Total disturbed area in key watersheds
Regional Habitat Connectivity	Improvements to connections between habitats
ECONOMIC	
Timber Revenue	Total harvested volume (m^3)
	Estimated net revenue
Carbon Revenue	Estimated net revenue from carbon credit sales
Recreation Revenue	Not able to distinguish between scenarios
SOCIAL	
Visual Quality	Percent (%) protection of areas that are important for the visual quality of NC's forested hills and mountains
Recreation Opportunity	Impacts to areas near existing recreational trails by harvesting activities
Trail Access	Not able to distinguish between scenarios
Fire Risk	Area with different fire risk rankings (%) based on fuel types
Culturally Sensitive Areas	Area of culturally sensitive places impacted by harvesting

SHARE YOUR INPUT

MUNICIPAL FOREST RESERVE

We are exploring options for the management of North Cowichan's Municipal Forest Reserve.

A technical team of forestry experts has developed four forest management options.

Tell us which forest management scenario option appeals to you and why.

Go to **ConnectNorthCowichan.ca/mfr** to learn more, read reports, ask questions, and RSVP for events

Learn more, ask questions, and share your input:

Attend the in-person information session

Wed., Nov. 30, 3–7pm, Maple Bay Fire Hall
(presentations at 3:30 and 6pm)

Join an online information session (RSVP req'd)

Tues., Dec. 6, 6–8pm
Mon., Dec. 12, 6–8pm

Take the survey

Available until Dec. 31
You may also receive a phone call to participate in the representative survey being conducted by Mustel Group

Learn more

Download the Discussion Guide
(available online and at Municipal Hall)

MUNICIPALITY OF NORTH Cowichan

ConnectNorthCowichan.ca/mfr

