

A Framework for Landscape Reserve Design in the Great Bear Rainforest

Background

In March 2006, a number of First Nations and the Province entered into Strategic Land Use Planning Agreements,¹ a Coastal First Nations–British Columbia Land and Resource Protocol,² and a Nanwakolas–British Columbia Land Use Planning Agreement-in-Principle³ wherein they agreed to implement ecosystem-based management (EBM) in the Central and North Coast area (“the Great Bear Rainforest” or “GBR plan area”). Signatory First Nations and the Province then took steps to implement ecosystem-based management on a government-to-government basis, including, among other things, establishment of new protected areas and land use objectives under provincial legislation.

In March 2009, First Nations that were signatory to the Land and Resource Protocol and the Agreement in Principle, and the Province agreed to a definition of full implementation of ecosystem-based management. It identified the establishment of landscape reserves as a key component of full implementation.

A framework and planning method for preparing strategic landscape reserve designs was agreed to in April 2009. Over the next 2 years, planners and technical teams prepared an initial set of designed and modelled strategic landscape reserve designs for the landscape units in the GBR plan area. These initial designs had no legal or regulatory standing and were implemented as guidance and information for operational planning.

From 2014 to 2016, a review of the Land Use Orders in the GBR was conducted. As an outcome of this review and related government-to-government discussions, signatory First Nations and the Province agreed to rescind the existing Land Use Orders and replace them with a new 2016 Great Bear Rainforest Land Use Order (GBR LUO).⁴ It contained an objective that establishes a legal requirement to complete landscape reserve designs for each landscape unit in the GBR plan area.

Under the 2016 GBR LUO and government-to-government agreements with First Nations, subsequent periodic reviews were scheduled for 2021, 2026, and every following 10 years. The purpose of these reviews is to assess the effectiveness of implementing the Great Bear Rainforest Land Use Objectives Order (GBR LUO) and to propose improvements to support achievement of concurrent ecological and human well-being goals.

From 2020 to 2022, a periodic review of the 2016 GBR LUO was conducted under a Terms of Reference (2019) between the Province, Coastal First Nations, and Nanwakolas Council (GBR Joint EBM Forum) with input from the Coast Forest Conservation Initiative and Rainforest Solutions

¹ Strategic Land Use Planning Agreements have been signed by the following First Nations: Wuikinuxv, Nuxalk, Heiltsuk, Kitasoo/Xai'xais, Haisla, Gitga'at, Metlakatla, Gitxaala, Kitselas, Kitsumkalum, Ulkatcho, Lax Kw'alaams, Homalco, Kwiakah, and Gwawaenuk.

² The Land and Resource Protocol was signed by First Nations of the Coastal First Nations.

³ The Agreement-in-Principle was signed by First Nations involved in the Nanwakolas Council.

⁴ Under “Rescinded Orders”, 2016 GBR LUO: <https://www2.gov.bc.ca/gov/content/industry/crown-land-water/land-use-planning/regions/west-coast/great-bear-rainforest/great-bear-rainforest-legal-direction-agreements>.

Project. As an outcome of this review and related government-to-government discussions, signatory First Nations and the Province agreed to rescind the 2016 GBR LUO and replace it with a new 2023 Great Bear Rainforest Land Use Order.⁵ Based on GBR Joint EBM Forum implementation experience since 2016, the updated GBR LUO amended the biodiversity objectives to improve effectiveness of the landscape reserve design process. Additional details on development, endorsement, and amendment of landscape reserve designs were developed by the GBR Joint EBM Forum and were included as part of the updates to this framework document. The Landscape Reserve Design Bulletins (1, 2, and 3) were also included in the update. Future landscape reserve designs can reference the framework as part of their submission of a design.

Purpose

This document presents a governance and general process framework for the development and implementation of landscape reserve designs in the GBR plan area. It summarizes the following aspects of landscape reserve design planning:

- scope, and legal and policy context;
- governance and responsibilities;
- goals, principles, and considerations;
- key deliverables;
- development and implementation process; and
- amendment process.

This document also provides a compendium of relevant landscape reserve design definitions (Appendix 1), and, a checklist for landscape reserve design submissions (Appendix 2).

A companion document, the *2023 Ecosystem Based Management Implementation in the Great Bear Rainforest: Landscape Reserve Design Methodology*⁶, provides detailed technical guidance on developing individual landscape reserve designs. Additional information on implementation of the GBR LUO is provided in the EBM Planning and Practices Guidance and Supplemental Technical Guidance documents.

Scope and Context

This framework applies to the landscape units that are within or which overlap the boundaries of the area covered by the GBR LUO. Section 5 of the GBR LUO describes the requirement to complete landscape reserve designs that address the minimum old forest retention levels, old forest representation targets, and managed forest area. As specified in the GBR LUO, a landscape reserve design must be prepared by a qualified professional; however, all holders of licences or tenures that follow a forest stewardship plan in the GBR LUO area are required to participate in the development and implementation of landscape reserve designs for the landscape units in which they will be operating.

⁵ The new GBR LUO was established on July 27, 2023.

⁶ Under “Implementation and monitoring information” tab:

<https://www2.gov.bc.ca/gov/content/industry/crown-land-water/land-use-planning/regions/west-coast/great-bear-rainforest>

The strategic, legal, and policy context for the development of landscape reserve designs in the GBR LUO area includes:

- coordination and oversight of ecosystem-based management implementation, including landscape reserve design development by First Nations–provincial government-to-government forums⁷;
- provincial Crown and forest licensee obligations for First Nations consultation, information sharing, and engagement;
- First Nations–provincial strategic land use and economic agreements (which, among other things, identify commitments and policies intended to support First Nations access to carbon credits and other economic opportunities);
- regulatory, policy, and technical direction for ecosystem-based management, including the GBR LUO and associated ministerial direction; and
- this landscape reserve design framework and the landscape reserve design methodology.

Governance and Responsibilities

Development and implementation of landscape reserve designs occurs within the First Nations–provincial government-to-government governance framework established by applicable Strategic Land Use Planning Agreements, the Land and Resource Protocol, the Agreement-in-Principle, Reconciliation Protocols, and other applicable British Columbia–First Nations EBM Agreements and includes:

- Landscape reserve design policy direction, coordination, quality assurance, effectiveness oversight, and major issue resolution.
- Development of specific landscape reserve designs by technical teams that include planners from relevant forest licensees,⁸ applicable First Nations to the extent desired, and other licensees working with lead qualified professionals.

Relevant government-to-government agreements and applicable Terms of Reference provide additional information on the structure, roles, and responsibilities of each of the above intergovernmental and multi-party groups.

Goals, Principles, and Considerations

The goal of the landscape reserve design process is to prepare and implement landscape reserve designs that identify how the biodiversity, First Nations, wildlife, and managed forest objectives of the GBR LUO can most effectively be addressed on the ground in each landscape unit and across the GBR plan area.

Landscape reserve designs are an intermediate-level planning product that provide a bridge between strategic and site-level planning over time. They are prepared in the context of broader strategic land use designations (e.g., conservancies; biodiversity, mining, and tourism areas; ecological reserves) and in advance of more detailed resource development and site-level planning.

⁷These include the Coastal First Nations–British Columbia Reconciliation Protocol Governance Forum and the Nanwakolas– British Columbia EBM Forum and other British Columbia–First Nations government-to-government forums as applicable.

⁸Relevant licensees include all licensees that have interests in the landscape unit.

They are intended to inform and provide guidance to, and create a more transparent and stable planning environment for, commercial forestry development area and operational planning and management activities.

Guiding principles for the landscape reserve design development process include:

- mutual respect and good faith collaboration;
- transparency of interests and information;
- providing reasonable opportunity for input;
- fair and equitable outcomes at the appropriate scale; and
- maintenance of confidentiality when required.

Key considerations guiding the development of landscape reserve designs include the following:

- protect and maintain Indigenous heritage features and Indigenous forest resources;
- address targets for old forest ecosystems, focusing on ecosystems and habitats that have high value or are rare or at risk;
- seek to maximize maintenance of the ecological function of the features included within the reserve (e.g., maintain landscape connectivity and interior forest condition);
- achieve the 2.5 million cubic metres of allowable annual cut for 10 years (2026), the managed forest target, and on-the-ground commercial harvest opportunities;
- seek to address other resource-related economic opportunities (e.g., carbon credits, renewable energy, commercial recreation);
- seek to simultaneously capture multiple cultural and ecological values in the same location; and
- where required, restore representative old forest by recruiting stands, as outlined in the landscape reserve design methodology, in order to recover old forest characteristics such as age, productivity, and structural complexity.

As identified in the GBR LUO, the specific legal requirement of landscape reserve design development and implementation is to identify landscape reserves that:

- a) address minimum old forest retention levels for each site series group in the order area; and
- b) to the extent practicable, simultaneously contribute to:
 - I. the old forest representation targets;
 - II. the protection and stewardship of Indigenous values;
 - III. the protection, connectivity, and stewardship of red-listed plant communities, blue-listed plant communities, rare and at-risk ecosystems, habitat that is important for species at risk, ungulate winter range, and habitat for regionally important wildlife, including but not limited to, mountain goats, grizzly bears, black bears, Northern Goshawks, tailed frogs, and Marbled Murrelets; and
 - IV. the protected and reserved forest area, and the managed forest area.

All landscape reserve design submissions should encompass whole landscape units and reflect design processes that are consistent with the landscape reserve design framework and methodology or the more streamlined method that is being developed.⁹ Landscape reserve designs are reviewed against the requirements identified in Appendix 2 as they are considered essential in the design. Landscape reserve designs that meet those requirements will be accepted and posted to the GBR EBM Data Centre, where they can be accessed by the public and used to guide operational planning.

The Province will engage bilaterally in this review process through the appropriate government-to-government arrangements as needed with First Nations who are not represented within the GBR Joint EBM Forum.

Landscape Reserve Designs and Forestry Operations

Forest stewardship plan holders will be expected to work with the GBR Joint EBM Forum and other First Nations EBM forums to advance new landscape reserve designs for landscape units by using either the existing or the new, simpler approach and focusing on those landscape units where harvesting is planned to occur in the near future.

For the purposes of submitting cutting authorities, the GBR LUO states in Part 1, section 5 (4) that landscape reserve designs must be completed prior to declaring areas or applying for a cutting authority. To maintain consistency with British Columbia Agreements and the intent of the GBR LUO, the Government-to-Government EBM Forum recommends that forest stewardship plan holders not apply for new cutting permits, road permits, or declared areas in advance of submission of draft landscape reserve designs and completion of government-to-government review. Issuance of timber sale licences and road permits by BC Timber Sales would be subject to the same recommendation.

If forest stewardship plan holders apply for new cutting permits, road permits, or declared areas before these steps have been completed, applications may be subject to more comprehensive Coastal First Nations–British Columbia and Nanwakolas–British Columbia government-to-government processes¹⁰ or other relevant provincial–First Nations collaborative engagement and consultation processes. Issuance of timber sale licences and road permits by BC Timber Sales would be subject to the same due diligence.

⁹ The streamlined approach to landscape reserve design planning can be employed in any landscape unit but is most appropriate in less complicated landscape units that have relatively little harvest history and lower levels of the timber harvesting land base. The approach uses a preliminary spatial definition of the managed forest in the landscape unit as a starting point for the design. That starting point is then modified to address landscape reserve design conservation objectives. Designs that are prepared using the streamlined approach and are endorsed by the government-to-government EBM Forum and/or a First Nations–Provincial Bilateral Forum will be considered complete. If changes to these complete landscape reserve designs are proposed, those proposing the changes will need to engage a qualified professional and ensure the revisions deliver an equivalent or improved outcome vis-à-vis landscape reserve design guidance.

¹⁰ Consistent with current government-to-government agreements and timelines, more comprehensive government-to-government engagement and/or consultation will likely be required to ensure cutting permit or road permit applications do not undermine the potential to develop effective landscape reserve designs or adversely affect sites or areas that First Nations planned to include in landscape reserves.

Key Deliverables

Landscape reserve design maps, digital products, and associated technical information for the GBR plan area can be thought of as a map-based and indicators-based “visual tracking and reporting system” that will show and report on how the GBR LUO objectives, including the ecological representation targets and managed forest targets, are being addressed by the landscape reserve design process.

Core outputs of the landscape reserve design process for each landscape unit include:

- map and digital GIS products (PDFs and shapefiles) that identify the location of reserves in the landscape reserve design; and
- a report that summarizes the landscape reserve design process, including stakeholder engagement and the key attributes of the landscape reserve design in relation to landscape-level and plan area considerations and requirements.

Further details on landscape reserve design reporting expectations and process are provided in Appendix 2.

Preparation and Implementation Process

The 2023 landscape reserve design methodology provides a detailed guide to the preparation of individual landscape reserve designs.

So far, there have been two landscape reserve design preparation approaches: led by a landscape reserve design technical team or a First Nation. Decisions on which process is appropriate will be made by the applicable First Nations in consultation with the Province.

Regardless of approach, key steps include the following:

- The lead coordinator can initiate the landscape reserve design by engaging with the applicable First Nations on the process approach. Whether a technical team or First Nation is initiating the process, all applicable First Nations and the provincial government-to-government EBM co-chair must be notified. Some landscape reserve design processes may invite representatives from tenure holders with an interest in the landscape unit or group of landscape units to participate. A lead qualified professional will be selected.
- Teams may identify and prioritize landscape units or appropriate groups of landscape units (trading groups), and establish a communication strategy, work plans, and timelines.
- The lead professional collates and integrates common ecosystem-based management data sets and other landscape-specific information.
- If led by a technical team, the team prepares any required confidentiality agreements¹¹ and undertakes engagement with applicable First Nations who are not participating directly in the technical work. Also, the team may initiate contact with relevant licensees and stakeholders to gather their input.

¹¹Confidentiality agreements may be required for First Nations cultural and licensee business information.

- The lead professional and lead coordinating team prepare a first iteration of the landscape reserve design by following the 2023 landscape reserve design methodology. To keep everyone informed, the first iteration will be circulated to applicable First Nations, licensees, and stakeholders for review, comment, and input.
- The lead coordinating team reviews and discusses input received from engagement, assesses the design for deficiencies as per the landscape reserve design methodology, and as required, adjusts the design to produce a final iteration of the proposed landscape reserve design.
- Final iterations of proposed landscape reserve designs are circulated to representatives participating in the process for a final round of review and comment.
- The landscape reserve design report and shapefiles (Appendix 2) are submitted to the government-to-government EBM co-chairs and relevant First Nations leads for review and endorsement by respective decision makers.
- Once endorsed, the provincial representatives at the GBR Joint EBM Forum will prepare a memorandum for the applicable District Manager that confirms government-to-government support for the landscape reserve design and includes shapefiles and where available, First Nation letters of support.
- Government-to-government forums or their technical teams may periodically undertake a quality assurance process to assess the effectiveness of the landscape reserve design process and identify design deficiencies. Landscape reserve designs that do not pass quality assurance will be referred back to the relevant landscape reserve design leads, along with recommendations for resolution of any identified design deficiencies.

Amendments

Recognizing changes may need to be made to endorsed landscape reserve designs as new information becomes available through First Nations engagement, operational planning, inventory updates and new land use decisions, the GBR LUO provides the following direction under section 5 Objectives for landscape reserve designs:

- (6) A landscape reserve design may be altered or modified to address new information, provided that the alteration or modification
- (a) is developed by a qualified professional,
 - (b) maintains or improves outcomes pursuant to subsection (1), and
 - (c) is developed through a process of engagement with applicable First Nations.

Landscape reserve design modifications may be proposed for minor spatial boundary corrections and adjustments to improve ecological outcomes. Under the GBRO, the licensee or BC Timber Sales proposing such modifications should engage with applicable First Nations and seek their support or lack of objection for the proposed changes.

Proposed landscape reserve design amendments should be minor, with a neutral or positive outcome with respect to GBRO landscape reserve design objectives and design principles, and have been prepared in the context of operational planning following First Nations engagement.

The licensee or BC Timber Sales may submit the proposed amendments, along with a letter of support or lack of objection from the applicable First Nations, to the relevant district office as part of a regular cutting authority submission package.

Information sharing to support First Nations engagement in proposed minor landscape reserve design modifications should, at a minimum, include a brief report that provides a rationale for the change, a map detailing the amendments, and sign-off from a qualified professional.¹²

On an annual basis, licensees and/or BC Timber Sales should work together to produce and submit report addenda for the entire landscape unit that describe the changes to landscape reserve designs that have been supported, along with updated shapefiles. The addenda will be attached to relevant landscape reserve design reports. The amended reports and shapefiles will be re-posted to the GBR EBM Data Centre and shared with district staff.

If a new land use decision is made or there is a substantial change in resource inventories, and a more major change to a landscape reserve design is proposed, a new design should be completed that follows the landscape reserve design framework and methodology or the streamlined approach. The new design should contain a report and shapefiles that include sign-off from a qualified professional, and should be submitted to the relevant Government-to-Government GBR EBM Forum. Once reviewed and accepted, the updated report and shapefiles will be re-posted to the GBR EBM Data Centre and shared with district staff.

Where members of the GBR EBM Implementation Working Group or other interested organizations have new site-specific information that warrants consideration in relation to the development and amendment of landscape reserve designs, it is recommended that those parties contact and share that information with applicable First Nations.

Effectiveness Review

Government-to-government forums may periodically review the effectiveness of landscape reserve designs in meeting overarching ecosystem-based management goals, GBR LUO objectives, and plan area and landscape unit landscape reserve design considerations based on the landscape reserve design review framework (to be developed) and the landscape reserve design methodology (Appendices 2 and 3).

The preamble of the GBR LUO provides for ongoing monitoring of ecosystem-based management implementation. During scheduled periodic review, an assessment of completed landscape reserve designs will be conducted. Where such an assessment reveals potential or actual gaps in meeting key GBR LUO objectives, including managed forest and timber supply targets, that information will inform discussions on potential amendments to the GBR LUO and the landscape reserve design methodology as an outcome of the formal periodic review process.

Guidance and Linkages

Background reports and documents that can inform the preparation and implementation of landscape reserve designs include but are not limited to:

¹²Additional information may be requested by First Nations during the information-sharing stage.

- existing strategic landscape reserve designs;
- Strategic Land Use Planning Agreements;
- applicable First Nations land use plans;
- the *Ecosystem-Based Management Planning and Practice Guidance* and *Ecosystem-Based Management Supplemental Technical Guidance* documents;
- applicable EBM Working Group reports; and
- the 2023 landscape reserve design methodology.

APPENDIX 1. Key definitions

The following definitions in the Great Bear Rainforest Land Use Order (GBR LUO) and other relevant documents underpin landscape reserve design planning:

applicable First Nation: any First Nation with an asserted or established Indigenous right, Indigenous title, or treaty right to the area under consideration

First Nations engagement: reasonable efforts to communicate, share information, engage in dialogue, and identify and work to resolve issues and concerns brought forward by applicable First Nations

focal species: the species at risk and regionally important wildlife referenced in Objective 4 in the GBR LUO, including but not limited to mountain goat, grizzly bear, Northern Goshawk, tailed frog, and Marbled Murrelet

Indigenous forest resource: a forest plant resource listed in Schedule J, or other forest plant resource identified by First Nations during First Nations engagement, that is used for food, social, medicinal, or ceremonial purposes

Indigenous heritage feature: an artefact, feature, or site of the general types listed in Schedule I, other than a contemporary culturally modified tree or a historical culturally modified tree, that is known, is found, or is identified during First Nations engagement and is important to the cultural practices, knowledge, or heritage of a First Nation

landscape reserve: an area in a landscape unit where commercial harvesting is not permitted

landscape reserve design: a system of landscape reserves in a landscape unit that is designed to meet requirements for old forest representation, and simultaneously contribute to protection of Indigenous heritage features, Indigenous forest resources and other land use objectives

landscape unit: a landscape unit within the Order area shown on Schedule A

managed forest: the area of productive forest that is available for commercial timber harvest planning

minimum old forest retention level: the minimum percentage of the total forest area in a site series group to be retained as old forest for the Order area shown in Column "B" of Schedule G

operational planning: forest stewardship planning and other operational-level planning that guides forest harvesting operations

protected and reserved forest: the area of productive forest that is included in protected areas and identified in landscape reserve designs

restoration zone: a zone established within a restoration landscape unit landscape reserve design that is established for the purpose of restoring old forest structural attributes

APPENDIX 2. Landscape reserve design submission requirements (previously, G2G Bulletin #2)

For greater clarity, landscape reserve designs submitted to the Great Bear Rainforest Joint Ecosystem-Based Management Forum (GBR Joint EBM Forum), or provincial-First Nation bilateral EBM Forums and district managers should include the following:

- 1) a shapefile and PDF of the draft landscape reserve design; map includes an inset map of the Great Bear Rainforest area indicating the landscape unit's location
- 2) a report that contains:
 - a description of the landscape unit that includes:
 - its location and physical characteristics
 - land classifications
 - biogeoclimatic zones, site series groups, and wildlife habitats
 - forest stewardship plan holders that have obligations and interests in the landscape unit
 - First Nations with traditional territory in the landscape unit
 - a description and tabular summary of the data and information used to develop the landscape reserve design:
 - provincial inventory data
 - other GIS data layers and data sources
 - other information from First Nations, forest stewardship plan holders, and stakeholders
 - a description and tabular summary of the minimum old forest retention levels old forest representation, and managed forest targets, including whether these reflect current implementation guidance targets, guidance targets derived from spatially explicit landscape events simulator timber supply model outputs, or both sets of guidance targets
 - a general description of the design process (i.e., whether the process followed the landscape reserve design framework and methodology or the streamlined approach), including whether members of a technical team support the landscape reserve design¹³
 - a more detailed description of the process that was followed to produce the landscape reserve design, including description of the steps taken to achieve:
 - protection of Indigenous forest values
 - protection and stewardship of red-/blue-listed plant communities, rare and at-risk ecosystems, wildlife habitat, etc.
 - alignment with minimum old forest retention levels, old forest representation, and managed forest targets for the landscape unit
 - a short description and tabular summary of the performance of the landscape reserve design in relation to minimum old forest retention levels, old forest representation, and managed forest targets
 - a description of issues or information that was not fully addressed in the landscape reserve design and that should be considered during operational planning. These descriptions might refer to such things as:
 - isolated Indigenous heritage features and sites
 - isolated patches of rare and at-risk ecosystems or wildlife habitat that could not be incorporated into the landscape reserve design

¹³Technical team members who do not support the draft landscape reserve design are asked to include a short summary of their issues.

- identification of gaps in relation to the landscape reserve design site series group targets for the landscape unit that could be addressed via design of stand-level retention
- identification of managed forest deficits that could be addressed as site-level inventory becomes available during operational planning