



Assessing the Ecological Health of the Great Bear Rainforest



FORESTETHICS

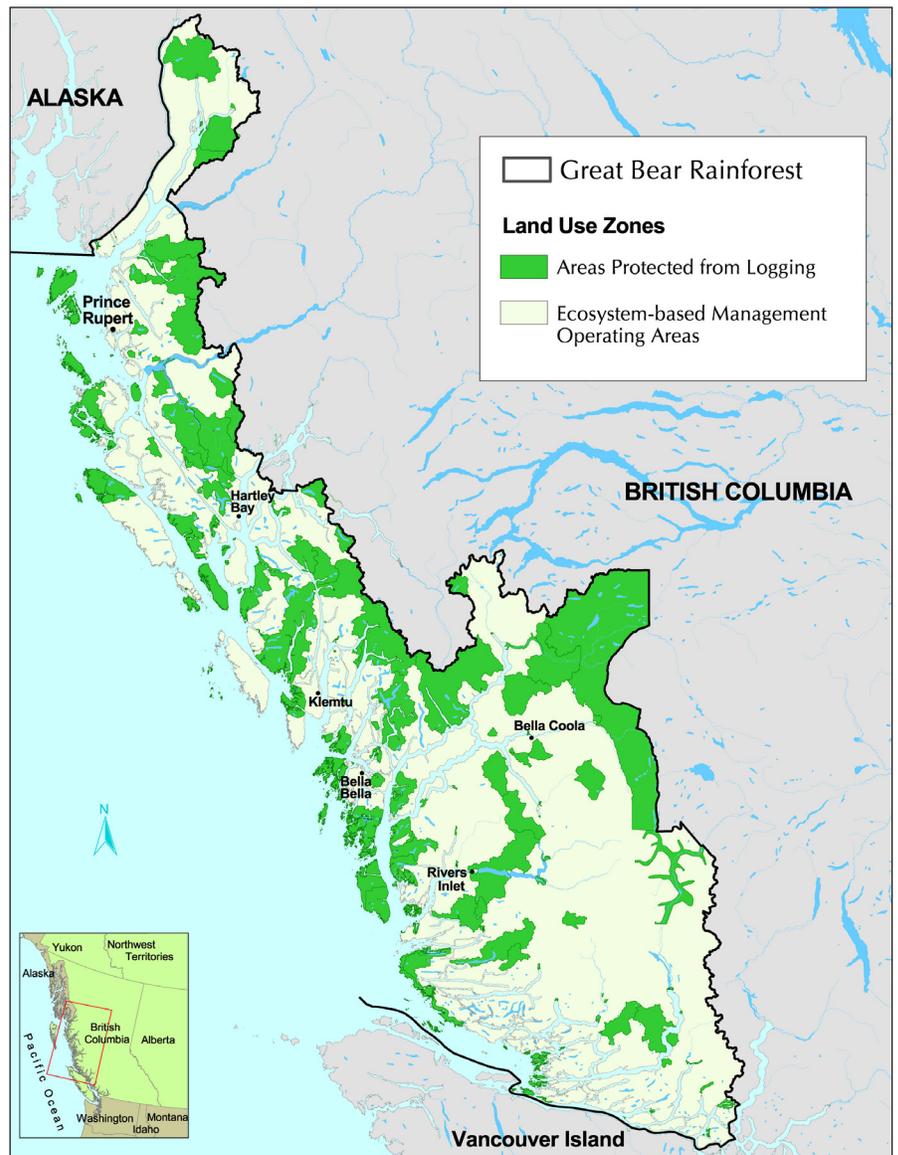
GREENPEACE



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ANALYSIS OVERVIEW

Using the most recently updated (2007) forest cover layer from government data sources, new analysis concerning the health of the forest ecosystems in the Great Bear Rainforest was commissioned by ForestEthics, Greenpeace and Sierra Club BC.



KEY FINDINGS

New scientific analysis indicates that while protection and new logging regulations have resulted in progress towards implementing Ecosystem Based Management¹ in the Great Bear Rainforest, there remain significant gaps in ecological health, particularly for ecosystems with the greatest biomass and productivity. This analysis shows a regional plan (also known as a Multi-Scale Risk Allocation map) for the remaining unprotected landbase is a key missing component needed to fully implement the terms of the Great Bear Rainforest Agreement by March 2009.²

¹ Ecosystem Based Management (EBM) is an approach to management that results in low risk to ecological integrity (or values), while at the same time promoting human wellbeing.

² In February 2006, with consensus support from all stakeholders

The regional plan must identify which areas can and cannot be logged outside of the Protected Areas, in order to maintain ecological health, or low risk³ within those ecosystems over time. In particular, the plan must demonstrate how those ecosystems presently at risk

including representatives of the coastal logging and mining industries, environmental organizations and local communities, the Government of British Columbia and First Nations announced the Great Bear Rainforest Agreements. These agreements include an expansive network of protected areas, financing for First Nations to build a conservation-based economy and a commitment to shift to a new system of ecosystem-based management across the entire region by March 31st, 2009.

³ Ecosystems at low risk have a similar level of old forest remaining as would be present under natural conditions. Specifically, they have 70% or more of the natural levels of old forest.

because of past intensive logging practices and those increasingly at risk because of ongoing logging activities - will be retained and recovered over time.

This analysis shows that to bring old growth forests that are considered high risk⁴ and moderate risk⁵ to low risk, an area roughly equal in size to 580,000 hectares, or 1.33 million acres, must be carefully managed so the ecosystems can be maintained and restored. This involves first identifying the highest ecological values and oldest existing forests and setting them aside then targeting other areas to recover. Meanwhile, the areas at low risk - totaling 3.1 million hectares, or 7.4 million acres - must continue to be managed so they do not lose their low risk status.

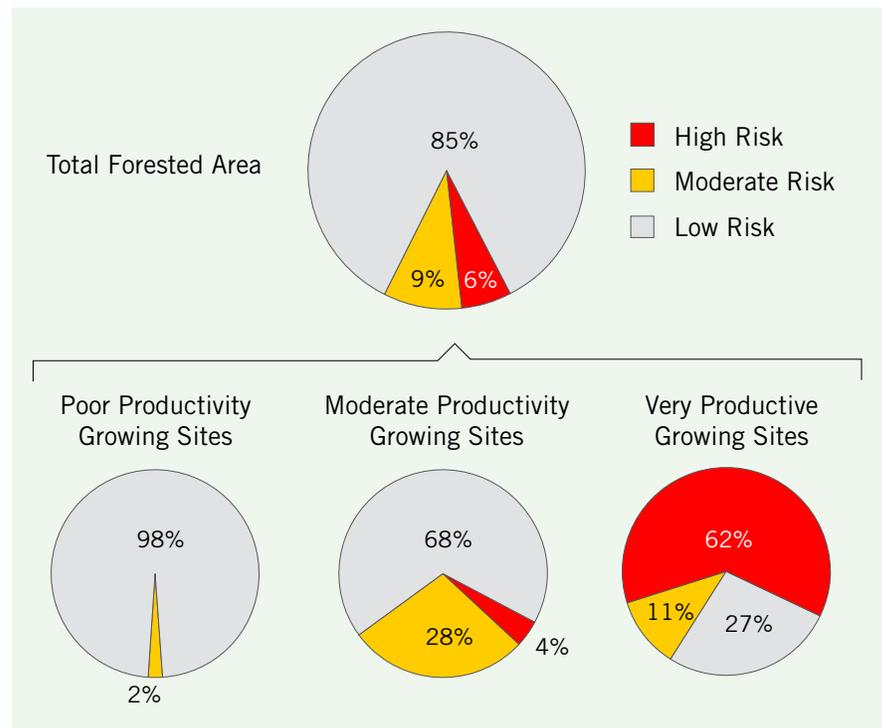


Figure 1. Ecosystems at risk.

INSIDE THE GREAT BEAR RAINFOREST: THREE ECOLOGICAL REALITIES

At first glance, the state of the ecosystems in the Great Bear Rainforest would appear to be relatively good, with the majority of the forest (85 per cent) and the greatest number of ecosystems (100 out of 162) at low risk (Fig 1). These ecosystem types typically include smaller trees found on the outer islands, fens and bogs - areas with traditionally little or no logging.

When the ecosystems are divided into three categories based on their productivity⁶ levels (poor growing sites, medium growing sites and very productive growing sites) and then analyzed, a far different picture emerges.

The ecosystems associated with poor growing sites continue to fare relatively well, with only 2 per cent

⁴ Ecosystems at high risk have very much less old forest remaining than would be present under natural conditions. Specifically, they have less than 30% of the natural levels of old forest.

⁵ Ecosystems at moderate risk have an intermediate level of old forest remaining - between 30 and 70% of the natural level. Ecological integrity in these systems is at risk.

⁶ Productivity is a measure of how fast trees will grow on a particular site. Very productive sites grow large trees very fast. Medium productivity sites can also grow very large trees, but it takes longer. Poor productivity sites tend to only grow very small, stunted trees, even after thousands of years.

considered high and moderate risk, while 32 per cent of the medium growing sites are considered high and moderate risk. These growing sites require attention because they are likely to see significant increases in logging in the future and it is important that they are not harvested into high risk.

Most concerning are the ecosystems that are very productive growing sites. While these sites, which produce the tallest trees and greatest biomass, make up only 8 per cent of the landbase, 73 per cent of them are presently at high or moderate risk. This analysis also shows the vast majority have less than 30 per cent of their natural levels of old growth forest remaining (Fig. 1), and many, particularly very productive western red cedar and Douglas fir growing sites less than 15 per cent.

These very productive - and high risk - ecosystems are typically located near rich river systems and include towering conifers covered with mosses and lichens. Because they are fertile growing sites, these ecosystems can potentially recover their ecological integrity and reach low risk conditions faster than other ecosystems in the region - but only if they are set aside and allowed to recover rather than being continuously logged.

ACHIEVING LOW RISK THROUGHOUT THE GREAT BEAR RAINFOREST

This analysis shows the Protected Areas – completely off limits to all logging - are a strong foundation for reaching low risk. However, in order to achieve low risk over the entire region, all ecosystems in the Great Bear Rainforest should be managed to maintain 70 per cent of their natural level of old growth forest over time.

The Protected Areas cover approximately one third of old growth rainforest, which contributes close to half of the 70 per cent target. The old growth targets from new logging regulations announced in January 2008 contribute another 400,000 hectares of representative old growth forest, bringing the total to 1.5 million hectares. This leaves a significant gap that still must be filled (see Fig. 2, left graph).

What this summary masks is that the picture is extremely severe for the very productive forest ecosystems. Of these ecosystems, only 33,500 hectares are being safeguarded through the protected areas and new logging regulations. To achieve low risk for these very productive forest ecosystems almost twice as much area would have to be set aside to recover (see Fig. 2, right graph).

SOLUTION: REGIONAL PLAN

To reach the target of maintaining 70 per cent of the natural level of old-growth forest over time, moderate and high risk ecosystems must be managed so they can recover to low risk and all other ecosystems prevented from moving into higher risk categories.

A regional plan is needed to zone the landbase according to its ecological value and the intensity of ongoing resource use. Areas with high ecological values should be identified and managed with light touch forestry and maintained at low risk. In exchange, areas identified as having lower ecological value could have higher intensity forestry and be managed to higher risk levels, provided that the overall effect manages the entire region of the Great Bear Rainforest to low risk over time. This plan must also identify specific areas where ecosystems should be reserved from logging and allowed to recover.

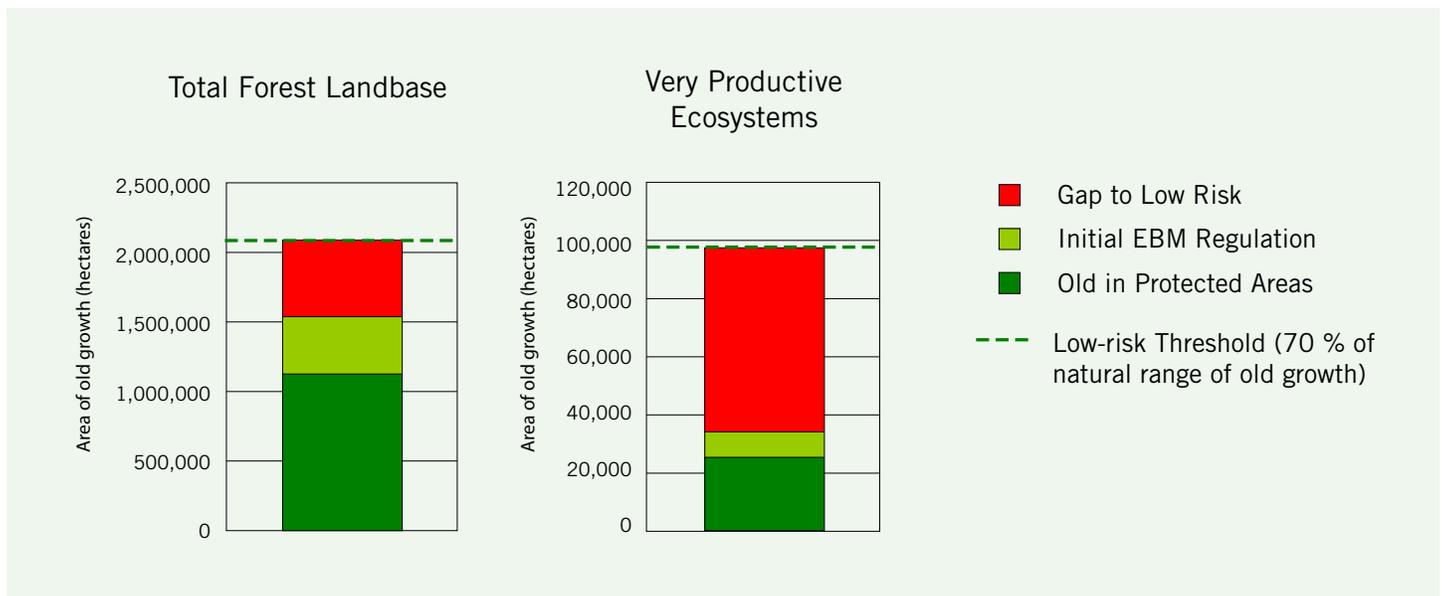


Figure 2. The gap to low risk.

This analysis was jointly commissioned by ForestEthics, Greenpeace and Sierra Club BC as part of the Rainforest Solutions Project. These organizations promote conservation options and economic alternatives to industrial logging on British Columbia's Central Coast, North Coast and Haida Gwaii.

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