A TALE OF TWO FORESTS

GOVERNING FAIRYTALES AND PSEUDO-SCIENCE IN THE GREAT BEAR RAINFOREST:

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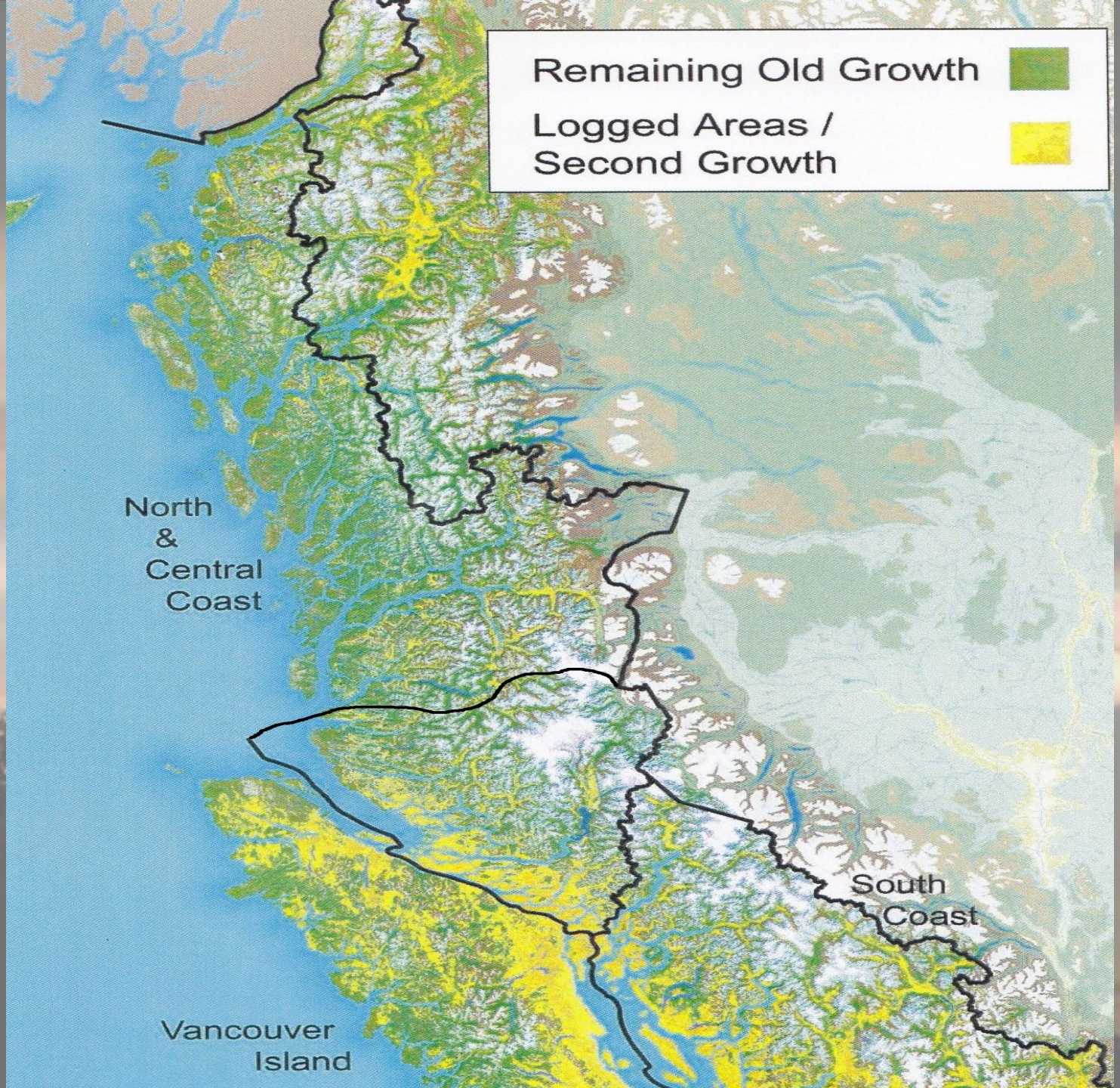
The Great Bear Rainforest


Remaining Old Growth
Logged Areas / Second Growth
North & Central Coast
South Coast
Vancouver Island

THE GBR MANAGEMENT ACT IS ABOUT:

- **Protecting old growth by limiting cutting using EBM.**
- **Giving certainty to industry, stability for First Nations and the regional communities.**
- **Restoring historical old-growth ecosystems.**

And it is going to do these great things on a portion of the Coast that is the size of Ireland with just one set of policies?????

SOME INFORMATION ON THE PROCESS

No Environmental analysis available to public

No Socio-economic analysis available to the public

Planning largely completed in isolation by Joint Solutions Project, a consortium of industry and environmental groups, with government and First Nations review of their proposal.

Public had 60 days to comment on proposal generated from the review.

AN ECONOMIST'S BASIC RULES OF ECOLOGY

Change is the only constant in ecology

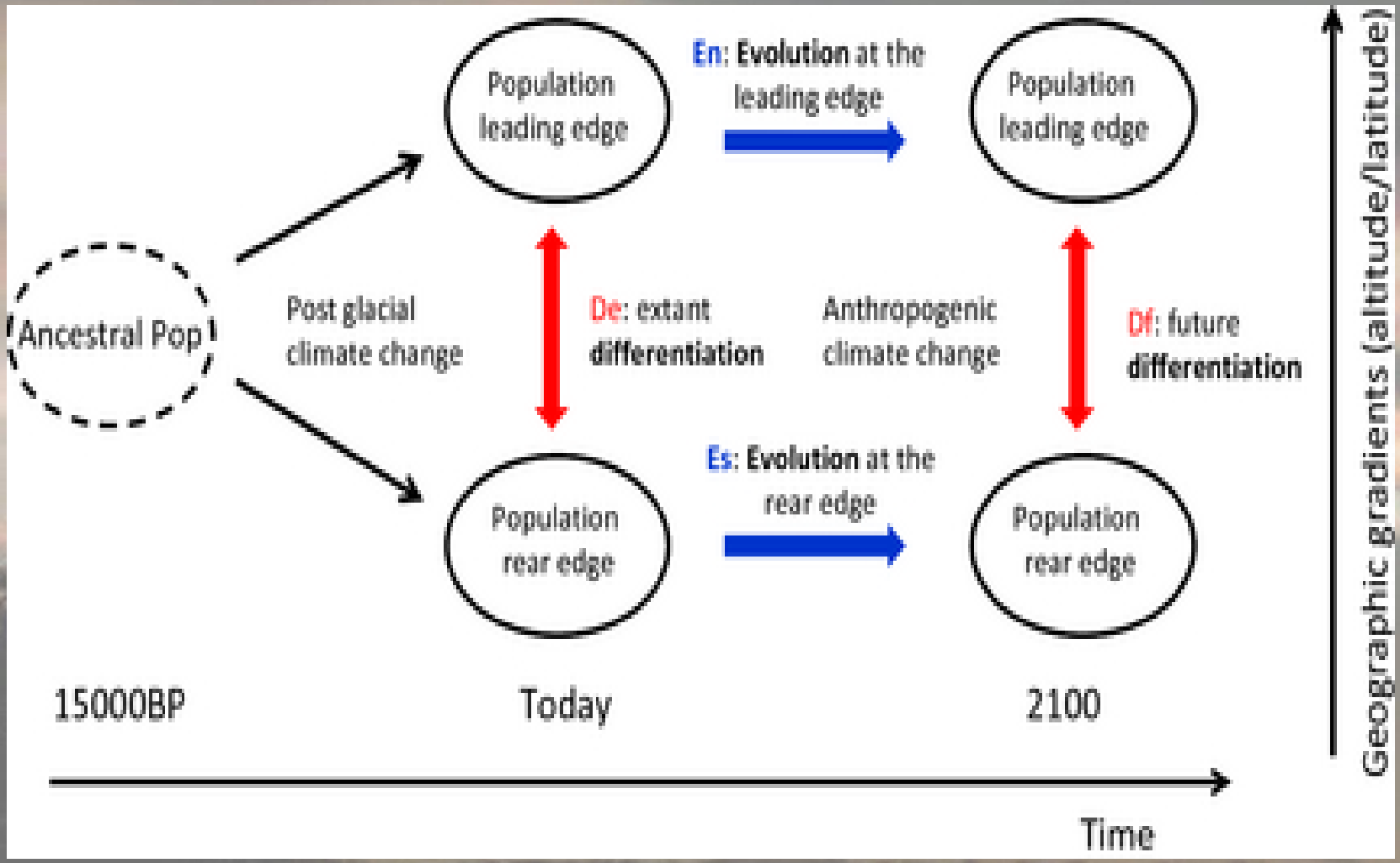
1. Life evolved with, creates and adapts to change;

2. Chance plays a huge role in the direction of change; and

3. Humans can affect but only partially control change.

Pristine systems are not superior or inferior to human altered ones.

ENVIRONMENTAL STRESS AND CLIMATE CHANGE



Economic Values at Risk: Harvest

EBM harvest history since 2009 (m^3)

Year	*South EBM Subtotal*	*Mid/North Coast Subtotal*	*EBM LUO Region*
2009	830,973	283,894	1,114,867
2010	1,974,535	394,462	2,368,997
2011	1,864,253	197,244	2,061,497
2012	No data	523,268	No data
Total	4,669,761	1,398,868	6,068,629
Average	1,556,587	349,717	1,906,304
Share	77.00%	23.00%	

South EBM Economic Activity = @75$/m3 /yr ~ 116,744,025$/yr

Vancouver log market, Jan. 2012 Year Average

Residents of the coastal communities only had a hint of the ecological and financial implications of this Act on their region!

SUMMARY OF MY REVIEW

Implementation of the government's GBR Land Use Order not only reflects poor use of western science, including economics, it ignores Traditional Ecological Knowledge and Institutions, while attempting to protect the forest from human and natural change.

FLAWED FOUNDATIONS OF THE PROPOSAL

Biogeoclimatic Ecosystem Classification – an outdated system based on notions of climax ecosystems in equilibrium with climate

Old growth - used as a partial surrogate for measuring ecological heath and integrity. Defined as "the structure, composition and function of an ecosystem that are unimpaired by stresses from human activity."

Ecological Risk – the probability (chance) that a system may be impacted as a result of exposure to one or more environmental stressors like land use through cutting, disease, invasive species and climate change?

Range of Natural Variability – Difficult to describe and apply. Accuracy depends on the temporal and spatial quality of data, one size does not fit all!

FLAWED FOUNDATIONS - CONTINUED

Mixing Normative versus traditional science – beliefs versus facts led planners to ignore the impacts of changing trends in climate on Alaska yellow cedar in the North and Western Red in the South.

MORE QUESTIONS ABOUT THE ACT

Are the assumptions at the heart of the Great Bear Rainforest Management Act based in scientific reality or beliefs about reality?

Has traditional forest management created unhealthy forests? Do these restoration units require restoration??

In a time of changing trends in climate, how appropriate are these regulations to adapting to stress and maintaining biological diversity?

What are the ecological and economic implications of adopting these "orders" to the North and Central Island and Mainland Coast outside of the GBR?

GOVERNANCE:

What if:

- The South-central portion is partitioned away from the North and Central portion of the GBR, and
- A charter is established for forest management in the southern region.

USE 21ST CENTURY SCIENCE TO UPDATE MANAGEMENT SYSTEMS

The Biogeoclimatic Classification System used to identify management units is based on a steady-state model and is outdated.

Use adaptive management with continual monitoring and feedback into the management systems.

Use more than one management system.

IMPLEMENTATION – WHAT SHOULD HAPPEN

The development of scenarios and estimate ECO X 2 for the long-term (more than one rotation or a single pass)

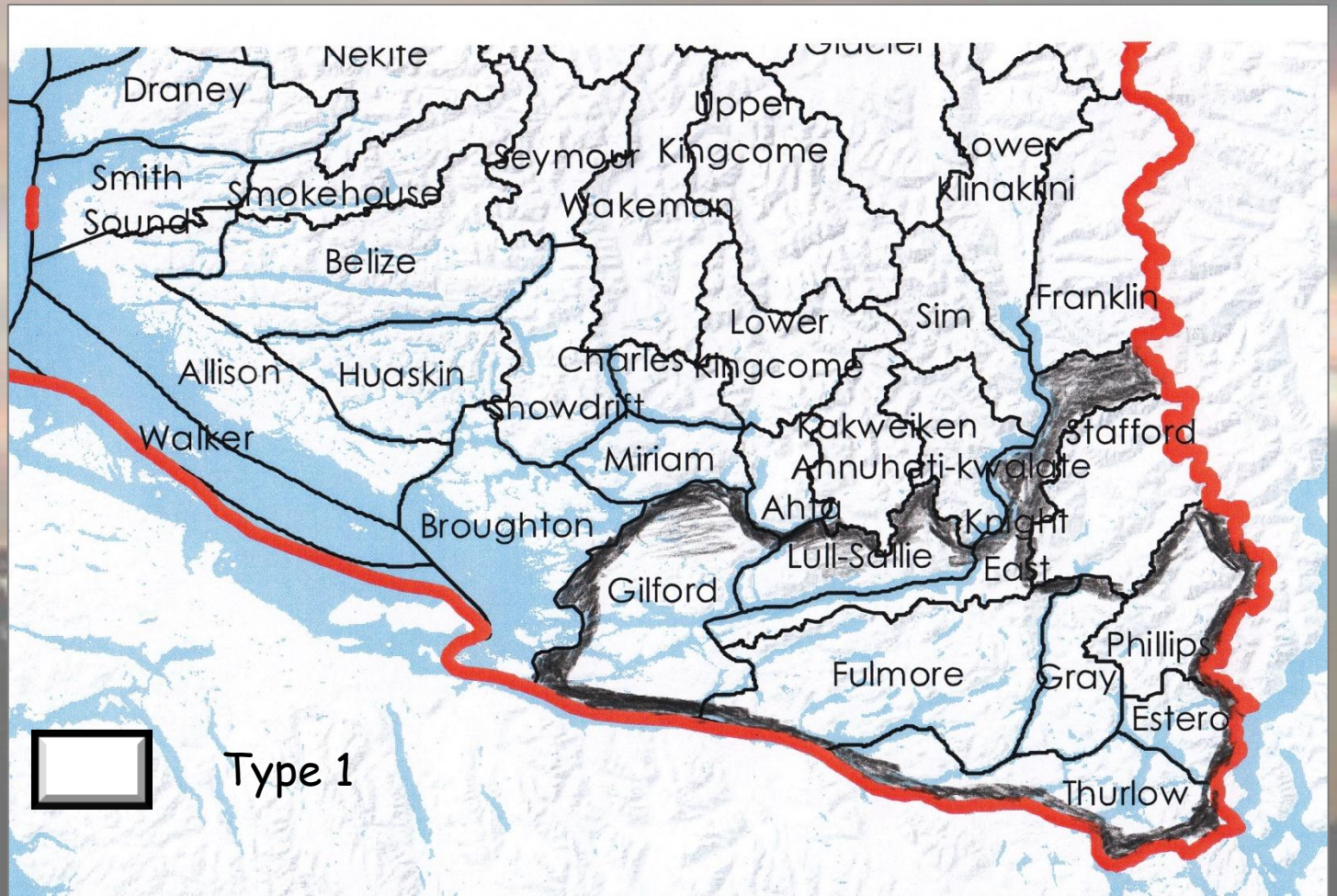
- Government Proposal (preservation, no manipulation beyond Act)
- Intentional Management Systems (Carey, Lippke and Sessions, 1999) to:
  - Maximize Net Present Value with timber and fibre production while
  - Maximizing the conservation of biodiversity

ECOLOGICAL RESTORATION

Where needed and viable, ecological restoration efforts should aim at conserving and restoring historical ecosystems. emerging novel ecosystems to ensure maintenance of ecological goods and services.

Identify where past and ongoing environmental changes are ensuring many historical systems will not be sustainable in the coming decades.

RESTORATION UNITS THE SOUTH CENTRAL PORTION OF THE GBR



Develop a Charter for Southern GBR:

Based upon:

- Acknowledging aboriginal title and rights and included in the co-governance of resources
- Traditional science along with indigenous people's knowledge
- Scientifically defendable assumptions with realistic goals in a period of changing trends in climate and economics[1]
- Monitoring program designed to uncover changes in ecosystems that require adaptive measures to correct or implement

We no longer have the option of choosing between mitigation and adaptation, we're already locked into a ***global-warming*** *scenario in which adaptation will be absolutely necessary…….*

Debra Davidson,
University of Alberta

Many believe that ecology is still a "young" science, but in comparison to most modern sciences, it is not young but simply retarded.

Daniel Botkin
The Moon In the Nautilus Shell