



**BC Ministry of Forests Lands and Natural Resource
Operations**

Forest Stewardship Action Plan for Climate Change Adaptation

Seminar
March 1, 2012

Kathy Hopkins - Technical Advisor – Climate Change



Today

- Provide context to the plan
- Outline key actions
- Describe next steps



Executive Sponsors

Jim Snetsinger

ADM / Chief Forester

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Dave Peterson

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Tenures, Competitiveness and
Innovation



Team and Contributors

Action Plan Team

- Christine Fletcher
- Dave Spittlehouse
- Deb MacKillop
- Don Morgan
- Frank Barber
- James Sandland



- Kathy Hopkins (lead)
- Katharine McCallion
- Leslie McAuley
- Ralph Winter
- Rein Kahlke
- Rob Bowden

Input from:

- Workshop participants
 - (Nanaimo, Prince George, Kamloops, Creston)
- Branch Directors and Staff
- Provincial Forestry Forum
- Minister's Practices Advisory Council
- Operational Issues Forums

Beginnings

BC's [Climate Change Adaptation Strategy](#) calls upon government to:

- Build knowledge and tools to help decision-makers prepare;
- *Make adaptation a part of B.C. Government's business; and,*
- *Assess risks and implement priority adaptation actions in key climate sensitive sectors.*

Future Forest Ecosystems Initiative:

- Aim: resilient forests

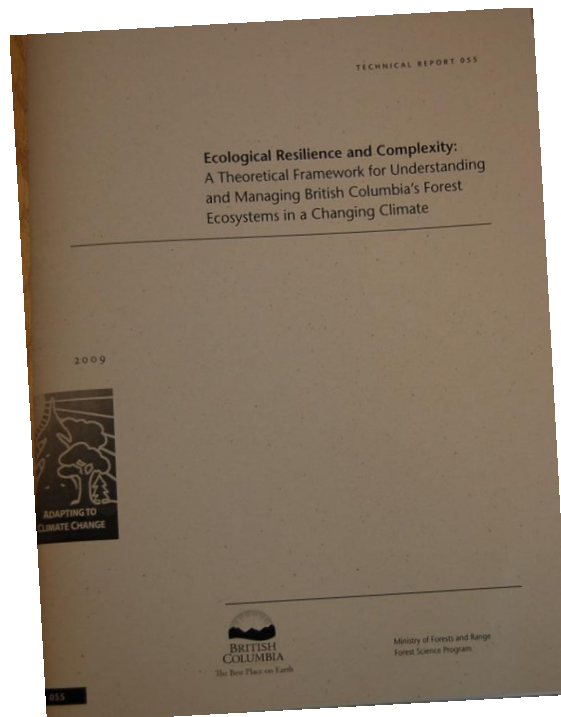
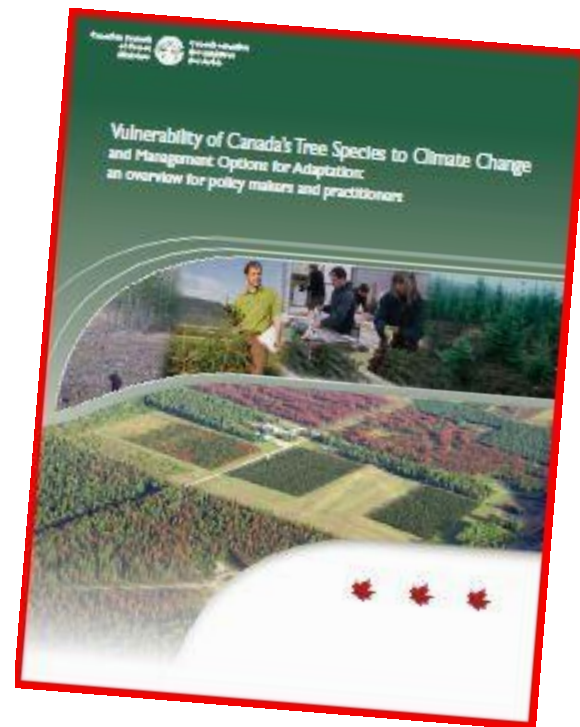
Future Forest Ecosystems Scientific Council

- Partnerships for research and assessment projects

What We Did

Used two reports to summarize:

- Characteristics of resilient ecosystems
- Potential management options



Risks

More disturbance

Trees become poorly adapted to new conditions



+4.1°



+2.0°



0°

Source: G. O'Neill

Opportunities

- Potentially more forest area (cold soils)
- Expansion in suitable climate range for high value species
- Adaptation can reduce risks and capitalize on opportunities

Goal: *Resilient* Forests

Can absorb disturbance without collapsing into a qualitatively different state

Characteristics:

Complex

Diverse

Connected

Rich biological legacies

Seed & pollen dispersal

Multiple representation of values

Reduced exposure and
sensitivity to large scale disturbance

Where We've Been

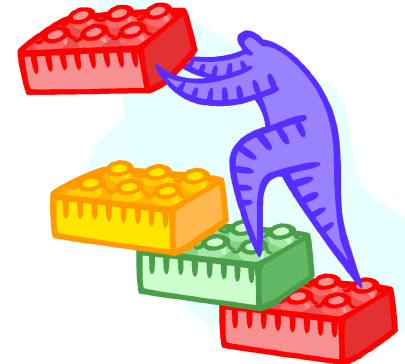
What are the opportunities?

- Four workshops June 2011
 - Industry, government, BCTS, community forests
 - forest managers
- Action plan developed
- Consultation



Adaptation Action Plan

- Sets out goals, objectives and *proposed* actions
- Modular framework
- Build as we go



Vision and Intent

Vision

BC's forests provide a broad suite of goods and services that benefit society now and in a changing climate.



Management goal

- By 2017, BC's forest management policy framework fully accounts for a changing climate.

Intent

- Set an agenda now for managing for resilient forests
- Phase in over 5-20 years

Action Plan

- aims to reduce risks, capture opportunities, and improve the ability of BC forests to withstand the full amplitude of climate change and variability.



Goals and Objectives

FOSTER RESILIENT FORESTS

- **Anticipate and manage for a changing climate:** Managed forest ecosystems that are suited to a changing climate.
- **Maintain and Enhance Diversity:** Complex and diverse ecosystems and landscapes that foster resilience to impacts of climate change.

MAINTAIN FUTURE OPTIONS AND BENEFITS

- **Manage and Protect Resources and Values:** A full suite of forest resources and values are maintained to safeguard future management options and benefits.
- **Manage Risks and Capture Opportunities:** Enhanced benefits and reduced climate change impacts and risks over a rotation.

BUILD ADAPTIVE CAPACITY

- *Develop adaptation information, knowledge and tools*
- *Increase extension and collaboration*
- *Ensure guidance and coordination*

Goal 1

Foster Resilient Forests

ANTICIPATE AND MANAGE FOR A CHANGING CLIMATE



MAINTAIN AND ENHANCE DIVERSITY



Key Initiatives

- Climate Based Seed Transfer system
 - Develop and implement a plan for CBST
 - Assisted migration adaptation trial
 - Take into account varying amplitude of change
- Tree species diversity
 - Define objectives
 - Monitor

Goal 2:

Maintain Future Options and Benefits

MANAGE AND PROTECT
RESOURCES AND VALUES



MANAGE RISKS AND
CAPTURE OPPORTUNITIES



Key Initiatives

- TSA level strategies that address climate change and strengthen forest health
- Build fire-resilient landscapes
- Find ways to ensure all harvested stands are stocked with healthy crop trees at age twenty
- Incorporate resilience in BC forest carbon project opportunities and MFLNR programs

Goal 2 continued

MANAGE RISKS AND CAPTURE OPPORTUNITIES



- Strengthen the content of district-level forest health strategies
- Apply adaptation principles, goals, objectives and tools through the Land Based Investment Strategy and FFT.

Goal 3

Build Adaptive Capacity

DEVELOP AND APPLY
KNOWLEDGE AND TOOLS

INCREASE EXTENSION AND
COLLABORATION



ENSURE GUIDANCE AND
COORDINATION

Key Initiatives

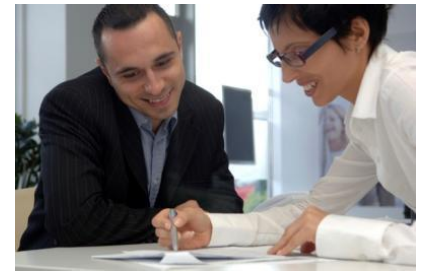
- Provide forest managers with science, data, methods and decision tools
 - Incorporate results from Future Forest Ecosystems Scientific Council projects
- Continue extension and collaboration on tools for climate change adaptation
 - Web portal
- Leverage resources

Benefits of the Action Plan

- Help improve future productivity and value
- Positions us well for the longer term
- Complements work already underway
- Integration: provides links and synergy



Comments



“Keeping pace with climate change is not enough.”

Response: Changed to “Anticipate and Manage for” a changing climate

“Focus on improving the ability to withstand the full amplitude of climate change and variability.”

Response: included in the plan

“Enable different resilience approaches on different parts of the landbase.”

Response: enabled through TSA strategies

Next steps

- Implementation
- Resourcing and partnerships
- June – FFESC workshop



Thank you

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