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# **Forest Gene Conservation Committee**

## **October 14, 1999 -- Meeting notes:**

Committee members present: Diane Medves, Sally Aitken, Dale Draper, Cheng Ying, Alvin Yanchuk, Jack Woods; Don Carson (guest)

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### **1. Committee terms of reference from FGC (Sept. 15, 1999 motions)**

- .....establish a Forest Gene Conservation Committee to develop FGC interest and needs..... (by Oct. 31)
- Explore gene conservation funding options and mechanisms (JW + co-chairs) (by Oct. 31)

FGC gene conservation objective from Strategic Plan:

***“Managing a gene conservation program to maintain genetic diversity in commercial tree species.”***

### **2. What value will gene conservation add?**

- due diligence on behalf of FGC to monitor genetic resource and recommend (or take) action if and when required
- insurance against loss of significant diversity
- support for forest products environmental certification

There is a need to demonstrate to the FGC and the provincial Chief Forester that, in order for TI activities to proceed, we need a focused gene conservation effort.

### **3. Basic functions of a FGC Gene Conservation program**

1. Further development of the technical aspects of gene conservation.
2. Inventory and cataloguing of the genetic resource.
3. Active management where needs appear.

#### **3.1 Technical elements**

- maintain gene resource database (inventory)
- lead technical development of gene conservation initiatives
- native tree species focus; developed and managed in conjunction with other provincial biodiversity initiatives
- population level conservation will require:
  - inventory
  - risk/priority assessment
  - strategy for conservation
- in-situ conservation in conjunction with existing protected areas and plantations
- ex-situ conservation to include existing protected area network, commercial plantations, gene archives, tree seed center, seed orchards, commercial plantations and breeding populations
- link to TI practice:
  - breeding programs and SO mgt.
  - seedlot registration and diversity measures
  - seed zones and transfer guidelines
  - seed and clonal deployment technical standards
  - partial-cutting effects
  - climate-change and adaptive traits
  - biotechnology interface

#### **3.2 Organizational/functional elements:**

- linkage with existing forest genetics expertise in universities, government (provincial and federal), industry, NGO and international
- linkage to FGC objectives
- stakeholders (as represented by the FGC) set objectives on components funded by FRBC
- stable funding/ long term program
- focus on program delivery; performance indicators defined, and research tied to delivery
  - linkage to other conservation and biodiversity initiatives
  - meets the needs of the forest industry for forest products certification

- able to pursue other funds (i.e. NSERC, industry, international) for research and associated programs in a way that will not remove focus from the core BC conservation program
- recommends specific (on the ground) actions to the FGC through the Forest Gene Conservation Committee
- linkage to seed planning units used for FGC tree improvement activities

#### **4. Vision statement**

**Conservation of genetic diversity of natural populations in forest ecosystems in BC through:**

- **genetic theory development**
- **inventory and cataloguing**
- **active conservation management**

#### **5. Recommended objectives for a forest gene conservation program**

1. Inventory and catalogue forest tree gene resources.
2. Support information and policy requirements related to forest gene conservation.
3. Provide gene conservation expertise to support and integrate with other biodiversity and forest ecosystem conservation efforts in BC.
4. Develop and advance gene conservation theory through research and collaboration with other agencies worldwide.
5. Support FGC objectives by conserving genetic diversity within seed planning units (species, seed zone, elevation band), which have active genetic improvement efforts, in accordance with current gene conservation theory.
6. Communication and extension to the forestry community and public to increase awareness of need and existing programs.
7. Assess risk related to biological, policy and administrative factors, and provide recommendations to FGC.

#### **6. Program needs:**

To meet the FGC gene conservation vision, a program is needed that is:

- funded through stable and long-term mechanisms,
- capable of delivering needed inventory and research functions, and recommending activities,
- able to leverage core funds through other initiatives,
- technically competent, and supportive of the development of high-level technical expertise,
- scientifically objective,
- applied in orientation and coordinated with existing genecology, breeding and production programs,
- able to draw on expertise from universities, government, industry and other groups worldwide.

#### **7. Proposed Forest Gene Conservation Center at UBC**

##### **7.1 Contrast of FGC supported and the broader role of a Center**

<b>FGC supported</b>	<b>Broader Center role</b>
Linkage to FGC objectives	Linkage to broad gene conservation and biodiversity initiatives
Tree species focus	Broad species mandate
Technical development, inventory and cataloguing in BC	Theory and technical development (national/international scope)
Coordination of gene conservation, and recommendations to FGC and other agencies regarding specific needed actions	Recommendations to broader conservation initiatives regarding genetic diversity
Linkage to operational TI activities	Linkage to broader conservation and sustainable forest management activities
Connected with in-BC forest genetics expertise	Connected to conservation expertise world-wide

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## 5.2 Proposal for a UBC Gene Conservation Center

- Sally Aitken will lead the development of a proposal to FGC from UBC. To be available December 15th, 1999.
- The Forest Gene Conservation Committee will review the UBC proposal and provide recommendations to FGC.

## 6. Supporting MoF stewardship requirements

**Issue:** how is the MoF stewardship obligation supported through a UBC Forest Gene Conservation Center?

**Rationale:**

The provincial Chief Forester delivers his mandate with support from technical and policy recommendations made by the Forest Genetics Council. Recommendations will be developed through the following flow of information and deliberation.



## 7. Funding mechanisms

Core funding is expected to come through the FRBC Tree Improvement program. The funding proposal submitted to FRBC in 1998 included an expenditure of \$250,000 per year until the year 2007. This amount could vary based on FGC recommendations. The following funding mechanisms are possible.

Jack Woods will further explore these with FRBC and Council Co-chairs, and provide a recommendation to FGC.

### Possible funding mechanisms:

1. direct FRBC/UBC contribution agreement:

Advantages:

- easiest to set up in the short-term
- considered eligible for federal matching funds

Disadvantages:

- stability linked to FRBC continuation
- subject to annual FRBC funding approvals (they can and do make multi-year funding commitments)
- no ability to set up an endowment

2. paid through the MoF/FRBC Goals Agreement

Advantages:

- existing mechanism in place

Disadvantages:

- MoF/UBC contract may be problematic
- subject to annual FRBC funding approvals
- no ability to set up an endowment
- less visibly independent of MoF
- federal matching funds more difficult to obtain

3. funded through the BC Forest Genetics Society

Advantages:

- could structure as an endowment
- long-term stability and FGC input
- eligible for federal matching funds
- funds from other sources could be pursued by the Society without changing the Society/Conservation Center mechanism

Disadvantages:

- new mechanism to work through with FRBC (slow)
- Society administrative structure not currently in place
- at the present time, setting up an FRBC funded endowment conflicts with other FGC activities (i.e. up-front GenSeed funding for orchard expansions)

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## 7. Milestones and activities

Activity	Who	When
Report back to FGC regarding gene conservation interest, needs and funding mechanisms	Forest Gene Cons. Committee; FGC Program manager	October 31, 1999
UBC proposal to the FGCC for review and recommendation	Forest Gene Cons. Committee	Dec. 15, 1999
Complete funding mechanism discussions with FRBC	FGC Program Manager; FGC co-chairs	December 15, 1999
FGCC Recommendations to FGC	FGCC	January 15, 2000
Develop financial arrangements between FRBC, the FGC, (Forest Genetics Society) and UBC	FGC Prog. Mgr., UBC Center leader	February 15, 2000
Set up organizational structure at UBC for the FGC Institute	FGC Prog. Mgr.; UBC Center leader/ Center staff person	February 15, 2000
Recruit staff and set up facilities in accordance with the technical plan	Center leader	March 30, 2000
Develop a detailed strategic and technical plan for the Gene Conservation Center	Center leader and staff	November 30, 2000