

|   |   |                           |                       |
|---|---|---------------------------|-----------------------|
| <b>SPU # 48</b>   | <b>Commercial broadleaves Interior all elevations</b>   |                           |                       |
|   | CONSERVATION -- GENECOLOGY -- SEEDLING USE  |                           |                       |
| <b>Program category: Genecology</b>   | <b>Annual planting (million):</b>   |                           | <b>NA</b>             |
|   | Filename: 48 Int broadleaves Sept 2017  |                           |                       |
| <b>GENETIC CONSERVATION STATUS</b>  |   |                           |                       |
| <b>Conservation statistics</b>  |   | <b>Aspen</b>              | <b>Birch</b>          |
|   |   | <b>Poplar Native only</b> |                       |
|   | Range area (ha)   | 50,184,649                | 38,193,978            |
|   | Area protected (ha)   | 4,151,063                 | 3,751,551             |
|   | Percentage of area protected  | 8%                        | 10%                   |
|   | Est. genetic reserves with >5000 mature trees based on botanical sample data                                    | 244                       | 150                   |
|   |   | 194                       | 194                   |
| <b>Conservation status</b>  |   |                           |                       |
|   | Current in-situ protection status:  | <b>Well protected</b>     | <b>Well protected</b> |
|   | Probability of maintaining > 3 protected areas with adequate population size given natural disturbance regimes: | <b>Very high</b>          | <b>Very high</b>      |
|   |   | <b>Very high</b>          | <b>Very high</b>      |
| For further information visit <a href="http://www.genetics.forestry.ubc.ca/cfgc/">http://www.genetics.forestry.ubc.ca/cfgc/</a>   |   |                           |                       |
| <b>GENECOLOGY AND TESTING</b>   |   |                           |                       |
| <b>ASPEN (<i>Populus tremuloides</i>)</b>   |   |                           |                       |
| <b>Issues:</b>  |   |                           |                       |
| Little information on aspen genecology is available for the norther interior.   |   |                           |                       |
| Sources from the Peace and Liard river areas may offer superior growth and form.  |   |                           |                       |
| Aspen is being increasingly utilized as a source of fibre in the northeast part of BC.  |   |                           |                       |
| <b>Provenance testing:</b>  |   |                           |                       |
| None underway   |   |                           |                       |
| <b>Projects:</b>  |   |                           |                       |
| Hybrids of <i>P. tremuloides</i> x <i>P. tremula</i> from Michigan, including diploids and triploids, were established in 1992 on sites at Skimikin seed orchard, Prince George, and Fort Nelson.   |   |                           |                       |
| <b>POPLAR (<i>Populus balsamifera</i>) and hybrids</b>  |   |                           |                       |
| <b>Issues:</b>  |   |                           |                       |
| Poplar offers a means of fast-growth short-rotation fibre production on some interior sites, including on sites irrigated with reclaimed wastewater.  |   |                           |                       |
| <b>Provenance testing:</b>  |   |                           |                       |
| 64 selected clones of <i>P. balsamifera</i> and hybrids are tested on 4 coastal and 2 interior sites. Planted in 1989.  |   |                           |                       |
| 182 sources (primarily coastal) ranging from 44° 00' in Oregon, to 59° 27' in the Dease Lake area are tested on one site in the Skeena valley, west of Terrace (planted 1995). The test site is receiving ongoing maintenance and measurement.  |   |                           |                       |
| <b>Projects:</b>  |   |                           |                       |
| 1. Hybrid crosses between <i>Populus trichocarpa</i> , <i>P. deltoides</i> , <i>P. nigra</i> and <i>P. maximwizii</i> are established in tests on Vernon commanage grasslands under reclaimed wastewater irrigation.  |   |                           |                       |
| 2. An archive of interior BC provenance collections from the US border to Fort Nelson are established at the Kalamalka Research Station. This collection is available for the establishment of a range-wide interior provenance study.  |   |                           |                       |
| <b>BIRCH (<i>Betula papyrifera</i>) and other birch species</b>   |   |                           |                       |
| <b>Issues:</b>  |   |                           |                       |
| Birch is a fast-growing source of quality wood that is suitable for furniture and other specialty manufactured products.  |   |                           |                       |
| Silviculturists are increasingly using birch in mixed-wood stands due to root-rot and wildlife considerations.  |   |                           |                       |
| Birch grows in a wide variety of mesic ecosystems in the southern half of British Columbia.   |   |                           |                       |
| <b>Provenance testing:</b>  |   |                           |                       |
| 1. 18 seed sources from Nelson to Prince Rupert were established on 6 sites in 1996.  |   |                           |                       |
| 2. 195 open-pollinated families from southern BC were established in 1998 on a single test site at Skimikin seed orchard.   |   |                           |                       |
| 3. 49 seed sources representing 6 elevation transects from Idaho to Prince Rupert were planted in 2000 on 3 sites located at Prince George, Skimikin seed orchard, and Sandpoint, Idaho. All sources were grown in nurseries local to the test sites. Each family is tested on each of the 3 sites, using material grown at each nursery.   |   |                           |                       |
| 4. Selections from better sources and families were propagated in 2007 for the establishment of 2 small seed orchards at FLNRO Kalamalka and Skimikin sites   |   |                           |                       |
| <b>Projects and orchards:</b>   |   |                           |                       |
| 1. Ten full-sib and open-pollinated families of European silver birch ( <i>Betula pendula</i> ) from a long-established Finnish breeding program were planted in 1992 on 3 sites at Skimikin seed orchard, Prince George, and Fort Nelson.  |   |                           |                       |
| 2. Paper birch orchard established by the FLNRO at the Skimikin seed orchards site in 2008 (35 parental clones)   |   |                           |                       |
| 3. Paper birch orchard established by the FLNRO at the Kalamalka Seed Orchards site in 2010 and 2011 (36 parental clones)   |   |                           |                       |
| 2. Finnish birch orchard established by the FLNRO at the Skimikin seed Orchard site in 2009 (22 parental clones)  |   |                           |                       |
| The above forecasts are based on orchard status, seed inventories and seed use as of June, the year of publication, and are subject to change. Refer to the seed Planning and Registry System (SPAR) or contact the orchard manager for current seed inventories. Contact the Forest Improvement and Research Mgt. Branch, Ministry of Forests, Lands, Natural Resource Operations and Rural Development, to confirm data if used for silviculture or timber-supply planning. |   |                           |                       |