

APPENDIX 8 – ALTERNATE SAFE WORK PROCEDURE FOR DECAY DEFECTS ON TREMBLING ASPEN

Alternate Safe Work Procedures for Decay Defects on Trembling Aspen

Rationale

Trembling aspen (*Populus tremuloides*) is one of the most common deciduous trees which occurs throughout most of interior British Columbia. Where it occurs, it is perhaps the most valuable wildlife tree for cavity excavating birds because of its propensity to develop heart rot decay as a live tree, relatively soon in its life span. In most cases this heart rot is caused by the fungi *Phellinus tremulae*, which is restricted to the heartwood of the tree and is often successfully compartmentalized by the tree. Consequently, depending on the diameter and vigour of the tree, the internal decay is restricted to the heartwood, with the tree developing a sound outer shell of later heartwood and sapwood. The result is a live tree which can often exhibit numerous fruiting bodies of *P. tremulae* (brownish-gray conks are usually visible just below branch stubs), yet have enough sound outer wood in the stem cross-section to provide columnar strength to the bole of the tree (i.e., the minimum required shell thickness is > 30% of the tree radius). Trees in this condition make excellent nest sites for cavity excavating birds, and while they are still alive, often do not suffer stem breakage.

Related Danger Tree Assessment Guidelines

According to the tree failure criteria described in the *Wildland Fire Safety Module*, the presence of "...any heart rot fungi" found on broad-leaved deciduous trees results in a "Dangerous" rating for those trees, under Level 2-4 work activities. Most mature aspen have *P. tremulae* conks or blind conks --- this means that these trees would automatically get a "D" rating if there is exposure to workers (except for Level 1 work activities). In some areas of the province where aspen is abundant, this may mean that an undue number of live and/or minimally damaged aspen would be rated "D" for Level 2-4 work activities --- this would result in an unnecessary amount of tree felling and subsequent fuel loading in these situations, as well as a loss of wildlife habitat. An alternate job safety procedure is recommended for aspen, as follows.

Alternate Job Safety Procedure for Trembling Aspen (Level 2-4 work activities)

1. Conduct a site assessment overview in order to determine the general size and condition of aspen in the work area.
2. Look for visible conks and blind conks on tree trunks (usually seen as rough textured, blackish swellings at the base of branch stubs)
3. Look for aspen trees which have broken or snapped. If trees have sufficient decay to be a safety hazard (i.e., they have insufficient sound shell), then it is very likely that you will observe some broken and snapped trees, and trees with extensive woodpecker nest holes along the trunk.
4. If you do not see many broken or snapped aspen (with or without fire damage), then conclude that live standing aspen with NO OTHER DAMAGE other than visible conks, can be declared "Safe" to work around during the period of the work activity (subject to 72 hour reassessment period as per all trees).
5. Document your observations of aspen based on the site assessment overview
6. Determine and document marking procedures for aspen. If live aspen with conks are generally not breaking in the stand, then you will likely NOT have to mark aspen which have visible conks, but no other damage.
7. The above 6 steps **ONLY apply to LIVE** aspen with visible conks or blind conks, AND which do NOT have other damage. Trees with other damage (e.g., fire scarring, dead tops, damaged roots, etc.) must be assessed according to Table 3, 3A or 4 from the *Wildland Fire Safety Module* course manual, and dealt with accordingly.

