

**Attachment 12.** Homogenous versus Complex Upland Ecosystems in the Cosh Creek Area<sup>1</sup>.

<b>THPOG Definition of Simple (homogenous) Upland Ecosystem</b>	<b>THPOG Definition of Complex (heterogeneous) Upland Ecosystem</b>	<b>Key Block Attributes (Reconnaissance Notes, Site Plan Data, etc.)</b>
Common Vegetation types include V17, V11 and V22	Common Vegetation types include V12, V18, V28, V33 and V14	All blocks in the Cosh Creek area are composed of V17, V11, V22 with V16 at the higher elevations. This suggests that it is Simple (homogenous) Upland ecosystem that borders on the sub alpine.
Flat to rolling terrain	Occurs on highly textured terrain conditions, such kettles, kames and glaciofluvial soils.	Notes indicate the terrain in the Cosh Creek area was found to be even to rolling. It is best characterized as elongated morainal blankets and veneers over bed-rock (i.e., not the highly textured glacial-fluvial terrain characteristic of complex uplands).
Large even-aged stands common.	Even-aged stands common.	Large even-aged stands were present in the Cosh Creek area. Individual forest inventory polygons exceed 100 hectares in size.
	Stand sizes are smaller than Simple (homogenous) Upland resulting in a distinct mosaic of forest types.	Timber cruise information indicates pine, spruce, and fir is present in virtually every forest type. Since only the proportion of each species varies in each stand, there is no mosaic of distinct forest types.
Large stand replacing events are more common. The mean disturbance return interval is likely 80-100 years. Crown closure is generally poor to moderate, ranging from 40-65%. As a result, ladder fuels are abundant and the terrain presents little physical impediment to fire spread.	Stand maintaining surface fires have a return interval of 4-50 years, while stand initiating events are less common and likely to have a return interval as long as 120-150 years. The stand maintaining surface fires result in wide spaced veteran trees with heightened live crowns, that may show as many as 3-4 fire scars.	Although the return interval is greater than 100 years, coarse woody debris levels, understory regeneration, low incidence of fire scars, high live crown percentages, and high stand densities provide evidence that frequent stand-maintaining surface fires have not contributed to stand history in the Cosh Creek area.
Aspen and spruce exist in discrete pockets.	Patches of hardwood species are relatively common. Aspen and spruce are more prevalent than in Simple (homogenous) Upland.	Patches of hardwood species are not common in the Cosh Creek area (with the exception of south aspects and Lowlands that have been included in the FEN). Spruce is mixed, relatively uniformly, throughout the pine/spruce/fir forest types. Overall, pine is the dominant species.
	Lichen is a common canopy component of these stands and may depend on the unique disturbance pattern in these stands.	Due to its high value as caribou winter range, extensive lichen sites were excluded at the landscape level reducing the potential of proposing harvesting in these areas. At Cosh Creek, feather mosses dominate the proposed blocks with little to no cover of lichen.

<sup>1</sup> Adapted from P. Shuetz, 2004., pers. comm.