APPENDIX 4.2

THINNING & FELLING SPECIFICATIONS

Rothiemurchus will identify and mark site boundaries, constraints and sensitive features prior to the commencement of thinning & felling. This document will form part of any timber contract issued by Rothiemurchus Estate.

General

All thinning at Rothiemurchus aims to increase stand variability and enhance biodiversity - stand uniformity is not desirable.

The thinning intensity should generally remove 25-33% of the stem numbers and will enable the retention of deep live crowns.

Trees should be directionally felled away from roads, watercourses, archaeology, fences, young natural regeneration, ant nests and other marked features. Avoid felling trees with holes, nests, squirrel dreys, bat roosts in high forks. Most features will have been marked by Rothiemurchus staff using red and white barrier tape, but contractors and site supervisors are all asked and expected to keep a look out for additional sites or features not identified in the pre-harvesting survey. For operational sites where badger setts are present, Rothiemurchus will have applied for a licence to harvest in proximity to the sett. Conditions set by the licence will be supplied to and discussed with the contractor separately to this specification. Where no licence has been secured an exclusion zone 30m from the sett entrances will be marked out and no machinery or felling is allowed within this area.

No existing deadwood >10cm dbh should be felled unless it presents a hazard (if necessary, fell at 1-4m height to create a standing snag).

Lop and top should not be crosscut. It may be spread, or concentrated in racks (as directed).

All operations will comply with the Forests and Water Guidelines (4th Edition).

Racks - 1st thinning

New racks should be irregularly and widely spaced, using areas of low stocking density; they should meander to negotiate difficult terrain or obstacles and to access awkward areas. Parallel and/or straight racks should not be created.

Racks - 2nd & 3rd thinning

Existing racks should not be straightened, but may be widened on the outside of bends if necessary.

Biodiversity thinning (Extension Old Growth)

Selection will focus on increasing the inherent stand variability, in terms of native species, age class, tree size, shape & form & stocking density. Try to accentuate areas of variable stocking, canopy gaps & denser clumps.

Selection will favour development of broadleaved species (in order of preference - Aspen>Gean>Willow>Alder>Birch) in Scots pine-dominated stands.

Selection will gradually remove exotic species.

Deadwood creation aimed at achieving 40m^3 per hectare, allowing for any existing deadwood. For first thinning this may be as much as one in 10 trees left as deadwood. Dead-wood trees should either be felled at ground level and left lying without snedding or cross cutting or, if they are greater than 25cm dbh, they can be cut off at 1 to 4m above ground level as an artificial snag, with the top left lying, without snedding or cross-cutting.

No stump treatment is required in these areas.

Extended Rotation Thinning

Selection will focus on increasing the inherent stand variability in terms of species, age-class and tree size.

Select to favour trees with good crown development and stem form. Thinning intensities will reflect the need to maintain a live crown of 30-40%.

Deadwood creation aimed at achieving 20m^3 per hectare, allowing for any existing deadwood. For first thinning this may equate to 1 tree in 20 left as deadwood. Felling specification for deadwood as above.

Timber production thinning

Select to favour trees with good crown development and stem form. Thinning intensities will reflect the need to maintain a live crown of 30-40%.

Stump treatment will probably only be used on early thinning of spruce crops, but will be discussed on a site by site basis.

Deadwood creation aimed at 5m^3 per hectare, allowing for any existing deadwood.

Landscape, heritage, recreation thinning

Manage deadwood as above for timber production, but no standing deadwood to be left within falling distance of paths, tracks, access points.

Access & Timber Extraction

Take account of localised site conditions, avoiding vulnerable steep, soft or wet areas.

Felling & extraction machinery should be kept off forest roads & turning areas.

Watercourses

Trees should be directionally felled to prevent debris falling into watercourses and to minimise bank damage; materials entering watercourses should be removed.

Machinery should not work in watercourses and the appropriate buffer zones will be maintained throughout.

Crossing points will be planned to meet the harvesting and extraction requirements of the site, whilst avoiding and protecting sensitive or vulnerable areas. Carefully sited temporary log bridges, covered with plenty of brash will be used to cross watercourses. The passage of migrating fish should not be impeded. Temporary bridges and culverts will be removed and cleared of all harvesting debris once they have served their purpose.

Timber should not be stacked above or in watercourses.

Fuel, Oils, Storage

SEPA and the estate must be contacted if any spillage occurs

All lubricant oils must be biodegradable and all waste containers, cleaning cloths, used spill kits, etc must be disposed of responsibly.

Re-fuelling of harvesting machines must take place well away from water courses, with fuel stored in double walled or bunded tanks and with re-fuelling by closed systems.

Certification

Rothiemurchus forest management is UKWAS/FSC certified, ref:

Rothiemurchus SA-FM/COC-004552-G065 FSC 100%