

## Appendix 6: An Camas Mòr compensatory habitat management plans

Version: 11 April 2014

**Ref:** ACM environmental impact assessment Volume 2 Chapt 9. Ecology and nature conservation

An outline Nature Conservation Strategy (NCS) has been formulated for the proposed development. This outline document sets out the key principles related to ecology and nature conservation and it also includes a commitment for areas of land outside of the wider development area which would receive particular nature conservation management to enhance them. The location of these areas and their extent are shown on map 26 of the forest plan.

These areas of land for off-site natural heritage compensation are listed below, with some additional detail incorporated into the Section 75 agreement:

- Area near the River Spey – up to approximately 1.0 ha which will be used for wet woodland / wetland habitat creation;
- Four areas of heathland management close to ACM - 6.77ha;
- Ord Ban – 23 ha which will be managed for heathland and woodland blackgrouse habitat;
- Creag a' Chalamain – 78.4 ha which will be managed for montane woodland regeneration.

Timing is noted after each description of the work required with a reference to the phase number, e.g. **1**

Development area	Habitat	Compensation	Work required
<b>Inverdrue feeder road crossing; 0.25 Ha</b>	Mixed semi-natural woodland on floodplain	1.0ha: An area of new native woodland within the River Spey floodplain at Corrou, Rothiemurchus.	1. Keep livestock off the new woodland area; new fencing to be installed as necessary. <b>1</b>
The new feeder road to An Camas Mor will require a new crossing over the River Druidh at Inverdrue, close to the River Spey.	On the edge of the River Spey floodplain. Tree species include sycamore, Norway maple, Scots pine, birch, alder, ash, bird cherry, Norway spruce and European larch, with a ground flora dominated by wood-rush.	The area is adjacent to a pond that was opened up 10 years ago and is lightly grazed by cattle in the summer. The water table is high for much of the year with the vegetation dominated by wavy hair grass, soft rush and various sedges.	2. Ground preparation to provide dry, weed free sites for regeneration. <b>1</b>
		It is chosen as a compensation area, because it has the potential to regenerate as wet woodland, it is within the River Spey flood plain close to the area to be developed and it will enhance the habitat value of the area by strengthening connections between existing woodlands.	3. The site will be monitored after 7 years to see if trees grow to one metre in height. If not ten groups of 20 locally native trees (common alder, bird cherry, goat willow & rowan), with spiral guards & canes, will be planted into sites prepared by 1m diameter spot spraying to kill grass and rushes. <b>2/3</b>
		Disturbance and reduced livestock grazing around an adjacent fenced off pond has led to alder regeneration, but elsewhere, tree regeneration over the site is limited.	4. 6-monthly monitoring within the first three years after planting will check that browsing levels are allowing adequate tree growth. If more than 10% of the planted trees' lead shoots are browsed then protection measures will be implemented - such as increasing the height of tree guards or increasing the cull of roe deer. <b>3</b>
		Major power lines crossing the site are planned for removal as part of infrastructure changes by Scottish and Southern Energy.	5. Thereafter annual monitoring and beating up, fencing checks and maintenance until the woodland is established, with the target being at least 200 trees are over 2 metres in height at year 20. <b>4</b>
			6. Removal of non-native species regenerating into the site. <b>4</b>
			7. For on-going management, the area will be incorporated into the Rothiemurchus long-term forest plan. <b>1</b>

Development area	Habitat	Compensation	Work required
<p><b>East central area is heath, planted with Scots pine and is regenerating with birch; 20 Ha.</b> Within the development area 9.79ha of existing lowland heath with some scattered trees will be managed as lowland heath and 2.07ha will be converted back to open heath from agricultural land.</p>	<p>This area is identified in the forest plan for woodland regeneration and timber production. It is an area of dry dwarf shrub heath, dry heath / acid grassland mosaic and unimproved acid grassland with abundant Scots pine regeneration covering 32ha. Allowing for tree cover and grassland; approximately 20ha could be regarded as open heath. This is not a designated area, but lowland heath is minimally represented within the Cairngorms National Park.</p>	<p>Compensation will be provided with additional areas of open heath managed and created close to the development area and an area of black grouse habitat on Ord Ban.</p>	
		<p><b>Ord Ban.</b> 23ha: The aim is to create and maintain an area of habitat suitable for black grouse. It will include approximately 10ha of open heath, 8ha of regenerating birch and other native species (with tree heights to 3m and a maximum of 100 stems/ha) and 5ha of open, mature birch woodland with no more than 350 stems/ha.</p>	<p>1. Site monitoring in late summer once every five years using twenty 0.01ha sample plots spaced evenly across the site. Monitoring will record heather and tree seedling heights, if seedlings are above the heather, and the number of trees/tree seedlings per hectare. <b>1</b></p>
	<p>Dominated by heather with frequent to abundant petty whin in some areas, with drier areas containing bell heather and occasional blaeberry and slightly wetter areas containing occasional cross-leaved heath. In several localised places the Cladonia lichen species are currently dominant. There is also scattered older Scots pine and birch in this area and very abundant natural regeneration of both. Part of the northern end (mainly in the separate heath / acid grassland mosaic area) burnt in 2003 is now recovered with heather and petty whin on the dry heath areas. Broom dominates in part of the northern area.</p>	<p>The summit of Ord Ban is predominantly heather with tree regeneration, especially birch, encroaching into the area. It has been chosen as a compensation area as it has the potential to be managed as open moorland with tree regeneration; black grouse have been recorded in the area and it is close enough to similar black grouse areas on Creag Fiachlach and Inshriach to ensure habitat connectivity. It is surrounded by conifer (including larch) plantations and open, mature native woodland. Black grouse are an LBAP priority species.</p>	<p>2. Review management. If tree regeneration over 1m tall exceeds 5 trees on average per plot, in 50% of the plots, regeneration across the site will be cut to maintain no more than 20% tree cover in no more than 40% of the plots. 60% of the plots will be without established trees. <b>2</b></p>
		<p>Other tree species, such as Sitka spruce, Norway spruce, willow and Scots pine are also colonising from the surrounding woodland. This area is part of a WGS contract.</p>	<p>3. Controlled burning or grazing may also be options - to be carried out according to best practice. <b>2</b></p>
		<p><b>Additional Areas of Lowland Heath.</b> 1.73, 0.55, 3.04 &amp; 1.45ha: 6.77ha of regenerating pine/birch woodland will be managed as open heath.</p>	<p>4. The long-term objectives and management for the site will be incorporated into the Rothiemurchus long-term forest plan. <b>1</b></p>
		<p>These areas are heathland areas within existing forest areas that are either going back to scrub (broom) or regenerating as</p>	<p>1. Cut and remove / burn existing tree &amp; scrub growth on these areas or thin them to less than 100 trees/ha. <b>1</b></p> <p>2. Monitor tree regeneration and heath condition with at least 5 sample plots of 0.01ha per site; once every 5 years. <b>1</b></p>

Development area	Habitat	Compensation	Work required
		pine & birch woodland.	3. Cut tree regeneration, or manage regeneration with grazing, to maintain areas as open heath. Some heath areas may move through the woodland: When mature woodland in the proximity of a heath site is felled it will revert back to open heath and be managed as open heath while the original area of heath is allowed to regenerate. An area of at least 6.77ha will be maintained as open heath with each area of heath remaining open for at least 20 years. These targets and objectives will be incorporated into the Rothiemurchus long-term forest plan. <b>1</b>
<p><b>West central area of the development, now woodland; 44.46 ha.</b> Of which: 12.76ha will be retained as woodland within the development area; 5.05ha will be new woodland created adjacent to the development area; 26.65ha requiring off-site compensation</p>	Pine, larch and Sitka plantation woodland on a ploughed site with some regenerating birch.	78.4ha: This area will be managed to achieve the establishment of montane woodland with an average stocking of 350 trees/ha of mixed native species (at least 5% broadleaves) over 1.5m tall.	1. Browsing control by selective culling of deer on site. Annual monitoring of trees in late summer will be carried out for the first 10 years with the objective of achieving browsing levels of less than 60% of leading shoots on birch and 30% on pine. <b>1</b>
	The northern end of the plantation was burnt and replanted, but parts are dominated by broom.	An area on the West side of Creag a Chalamain at 450 to 700m above mean sea level (78.4 Ha) has been chosen as a montane woodland expansion area to compensate for the loss of plantation woodland. Montane woodland and natural tree lines are rare in the Cairngorms due in part to historic high levels of grazing pressure and slow growth rates. Creag a Chalamain is outside the existing forest plan area yet it shows good potential to regenerate to a natural tree line and create a habitat that is of greater conservation value to that being lost.	2. Plant 100 plants of dwarf birch and montane willow species within 20 1.5x1.5x0.7m (approx) hare and deer proof cages across the site at appropriate locations. 5 aspen plants will also be planted with protection close to scree areas where future suckers are less likely to be browsed and 5 in 1.6m tree guards close to the Druidh. <b>2</b> 3. If browsing exceeds the limits in 1. above, deer management visits will be increased to two per week in November to February and July to September, according to weather, until browsing damage assessments are below 60% on birch and 30% on pine regeneration across the site. <b>2</b>
		The area includes 19ha of mature heath on well-drained lower slopes, 38ha of peaty soils dominated by deer grass and 21.4ha of wind-clipped heath and scree where heather, bearberry and exposed rock dominate. Scots pine and juniper, with some birch and rowan, are beginning to establish on the site, especially on thin soils at higher altitudes and average tree densities are in the region of 100/ha. Over the whole site less than 5 trees reach 2m in height, but some of those are close to the 700m contour.	4. Monitoring will be carried out using 25, 0.01ha sample plots spaced evenly across the area. <b>1-4 &amp; ongoing</b> 5. 5 and 10-year reviews will report establishment progress to CNPA. At year 5 the aim will be to have 150 trees regenerating per hectare. At year 10 the target is 300 trees/ha regenerating with 150/ha established at 1.5m tall. If this 10-year target has not been met, alternatives such as additional planting and protection will be discussed with Scottish Natural Heritage and proposed to CNPA. <b>2</b>

Development area	Habitat	Compensation	Work required
		<p>Remnant pine forest occurs at 450m in altitude in the Larig Ghru to the North West of the site. Deer numbers are low on this site, but other browsing animals include mountain hares and, from time to time, reindeer. Red grouse also use the site. The nearby paths are well used by hill walkers.</p> <p>Montane woodland expansion on Creag a Chalamain would be adjacent to areas of montane woodland expansion on neighbouring Forestry Commission land.</p>	<p>6. Once the establishment target set above has been met, monitoring once every 5 years until year 30 will record trees per hectare over 600mm and those over 1.5 metres in height until there is an average of 350 trees/ha established over the whole site. Future monitoring and management will be incorporated into the Rothiemurchus long-term forest plan. <b>3 &amp; 4</b></p>