

# **AGENDA ITEM 7**

## **APPENDIX 3**

**2013/0120/DET**

**HRA REPORT**

Cairngorms National Park Authority

Habitats Regulations Assessment Report

Carrbridge Housing

Planning Application No: 2013/0120/DET

Erection of 96 houses, associated roads & footways on land bounded by Crannich Park, Rowan Park, and Carr Road, Carrbridge

July 2014

## Section I: Introduction

This is a record of the assessment under regulation 48 of the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended) for the planning application 2013/0120/DET made by Aviemore & Highland Developments Ltd. These regulations are otherwise known as “the habitat regulations”. It is the purpose of this assessment to inform the decision making body (the CNPA) on the effects of the above development upon the relevant Natura sites to allow them to determine the application in accordance with the European Habitat Directive 92/43/EEC.

European Directive 92/43/EEC is transposed into law in Scotland by the habitat regulations. This requires that plans and projects considered by competent authorities that could have a likely significant effect on a Natura site, should be subject to an assessment of their potential impacts upon the site. Regulation 48 directs that:

“48.-(1) A competent authority, before deciding to undertake, or give any consent, permission or other authorisation for, a plan or project which—  
(a) is likely to have a significant effect on a European site in Great Britain (either alone or in combination with other plans or projects), and  
(b) is not directly connected with or necessary to the management of the site,  
shall make an appropriate assessment of the implications for the site in view of that site’s conservation objectives. “

It further states that:

“48 - (5) In the light of the conclusions of the assessment, and subject to regulation 49, the authority shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the European site. “

The Cairngorms National Park Authority, as the determining and therefore competent authority, is therefore required in law to undertake this assessment in order to comply with these regulations.

Within the Habitats and Birds directives there are two categories of protected sites, both of which are found within the Cairngorms National Park. In addition, in Scotland, sites designated for protection under the Ramsar Convention (1971) are treated as if they are Natura sites as a matter of policy. Sites put forward for designation under Natura (provisional sites) are also fully protected until the time when the designation is either confirmed or refused. The types of site considered for this appraisal are therefore:

- Special Area of Conservation (SAC and pSAC) – a European designation which protects natural habitats and wild flora and fauna other than birds
- Special Protection Area (SPA and pSPA) – a European designation which protects wild birds

- Ramsar Site –Sites designated under the Ramsar Convention 1971 which protects wetlands

This process of assessment is known formally as a Habitats Regulations Assessment (HRA). This is not to be confused with an Appropriate Assessment (AA), which is one component of the process of the HRA.

### **Background to the assessment**

The proposed development which is the subject of this assessment consists of the erection of 96 houses, associated roads & footways on land bounded by Crannich Park, Rowan Park, and Carr Road, Carrbridge.

The principal documents which have been taken into account for this assessment are:

1. Planning application form
2. Planning application supporting information
3. SNH representation 14/6/13 and accompanying Natura appraisal\*
4. Public consultation representations:
  - a. RSPB 17/5/13
  - b. Badenoch and Strathspey Conservation Group 13/5/13
  - c. J Roberts 8/5/13
5. SNH and RSPB representations of 3/9/2013 and 28/8/2013 respectively on the draft HRA report

\* Within this report the details of locations of capercaillie and their lekking sites is generalised and the surveys above are not within the public domain. This is to protect the birds from possible disturbance that may result from this information being widely distributed. Consultees have been given access to all information.

### **Section 2: Methodology**

There is no prescribed method for a Habitats Regulations Assessment for projects. The CNPA has therefore consulted the guidelines prepared by David Tyldesley and Associates for the Welsh Assembly Government. These are contained within TAN 5 “Nature conservation and Planning” and where necessary they have been adapted for the situation in Scotland. In addition EU guidelines have also been consulted in this process, see references for details.

### **Table I Stages of Assessment**

<b>Stages of Assessment</b>	
<b>Stage 1</b>	Decide whether proposal is subject to HRA
<b>Stage 2</b>	Identify Natura Sites that should be considered and gather information about the Natura Sites
<b>Stage 3</b>	Consultation on the method and scope of the appraisal with SNH and others. Request additional information from applicant if required.
<b>Stage 4</b>	Screening the proposal for likely significant effects on Natura sites including mitigation measures included within the proposal
<b>Stage 5</b>	Screen for “in combination effects” with other plans or projects
<b>Stage 6</b>	Appropriate Assessment to determine effect upon conservation objectives. Preliminary conclusion about adverse effect upon the integrity of any site.
<b>Stage 7</b>	Consultation with SNH (and others if considered appropriate)
<b>Stage 8</b>	Apply additional mitigation measures, if required, via conditions to ensure that there is no adverse effect on site integrity
<b>Stage 9</b>	Conclusion on Integrity test
<b>Stage 10</b>	Section 49 derogation procedures. This only applies if adverse effects remain and Competent Authority still wishes to approve the application

Further details of the methodology applied during screening and appropriate assessment are given in the relevant sections.

### **Section 3: Initial stages 1-5 describing the Natura sites and Screening**

#### **Stage 1: The development proposal and the decision to screen**

The proposal for the housing at Carrbridge is close to a number of Natura sites and is within the definition of a project under Regulation 54 of the Natura regulations.

Regulation 54 states that:

“Regulations 48 and 49 (requirement to consider effect on European site) apply, in Scotland, in relation to—

- (a) granting planning permission on an application under Part III of the Town and Country Planning (Scotland) Act 1972.”

The proposed development is not wholly concerned with the necessary management of a European site for nature conservation and requires planning permission and so the plans must be subject to assessment under the terms of Directive 92/43/EEC.

## **Stages 2: Identification of Natura Sites and gathering their details**

An assessment of all possible sites affected by the proposed development has been undertaken. This has considered any possible outcomes of the development together with any conceivable effect. The list below is those sites that have been taken forward to screening for likely significant effects. See Appendix I for details on each site and its qualifying features. Other sites were considered but have not been taken forward. For example the Cairngorms Massif, because the development would be too small and distant to have any plausible effect upon the qualifying interest (Golden Eagle) and Kinveachy SAC where the qualifying interests are habitats that would not be effected by the relatively small number of likely visits arising from this development.

### **Special Area of Conservation (SAC)**

- River Spey

### **Special Protection Area (SPA)**

- Abernethy Forest
- Anagach Woods
- Cairngorms
- Craigmore Wood
- Kinveachy Forest
- Loch Vaa

## **Stage 3: Discussions on the method and scope of the appraisal and requests for additional information**

Advice has been sought from SNH for several sites and plans on a number of matters but in particular capercaillie impacts. Natura advice was received from SNH on 17<sup>th</sup> June 2013, following previous meetings on the 2<sup>nd</sup> and 8<sup>th</sup> May 2013.

Advice has also been sought from Tim Poole (Capercaillie Project officer) while the CNPA access team has advised on issues around the public access and recreation use of the woodlands and footpath network around Carrbridge.

No additional information has been asked of the applicant following submission of the application. The CNPA is content that the advice it has received during consultation has provided adequate baseline information on which to determine the effects of the

development. This baseline has been built from existing records and knowledge on the location and behaviour of capercaillie in the vicinity.

#### **Stage 4: Screening the proposal for likely significant effects**

The test in regulation 48 is whether the proposal is likely to have a significant effect, either alone or in combination with other plans or projects, on the Natura sites identified in stage 2 above. This clearly requires an initial assessment, or screening, of Natura site interest features to ascertain if they might be affected and if it is likely or significant.

In considering what is 'likely' the CNPA is mindful of existing case law in relation to the application of the habitats regulations. The CNPA notes the ruling of the ECJ in case C-127/02 (known as the Waddenzee judgement). This rules (in paragraph 45) that an appropriate assessment must be undertaken if "it cannot be excluded, on the basis of objective information, that it will have a significant effect on that site, either individually or in combination with other plans or projects". Consequently we take the word 'likely' not to mean 'probable' but 'possible'.

The ruling also gives useful clarification of the word 'significant'. In Paragraph 47 it states that: "where such a plan or project has an effect on that site but it is not likely to undermine its conservation objectives, it cannot be considered likely to have a significant effect on the site concerned." The CNPA draws from this that it must be confident that any significant effects can be excluded on the basis of objective information in order to conclude that there will be no effect on the conservation objectives.

In considering the part of the test which is "alone or in combination with other plans or projects" we understand that this refers to proposed or incomplete plans or projects. Completed developments will also be considered but as part of the baseline for assessment if they have continuing effects on any site and "point to a pattern of progressive loss of site integrity". If a development would have a significant effect alone then it is to be assessed alone. An in-combination assessment is therefore not required, until it is no longer considered to have an effect alone.

When considering in-combination tests, only projects and plans that are relevant to the affected sites will be included. Furthermore they will be excluded unless their effects are related to the effects of the development being assessed here.

The first step of the screening process will consider what the level of any effect may be: no effect, likely insignificant or likely significant. If likely insignificant effects are found, they will be further screened at stage 5 in combination with other plans or projects. If there are any significant effects found, either alone or in combination, then these will be considered in detail within an Appropriate Assessment.

**Table 2; the four possible outcomes from the screening process**

Screening outcome	Description	Stage of process outcome found
No effect	There is no adverse effect at all upon the qualifying interests	Stage 4

No likely significant effect in combination	Where there is an insignificant effect both from the development itself, and even in combination with other plans and projects	Stage 5
Likely significant effect in combination	Where there is an insignificant effect from the development itself but a significant effect in combination with other plans	Stage 5
Likely significant effect alone	Where there is a possible, significant effect from the development by itself	Stage 4



**Table 3: Screening for LSE from Carrbridge Housing application**

<b>Abernethy Forest SPA</b>					
<b>Qualifying Feature Affected</b>	<b>Possible effect of development</b>	<b>Likely significant effect</b>	<b>Duration</b>	<b>Discussion</b>	<b>Screening outcome</b>
Capercaillie	Increase in recreational activity from residents of new development within the SPA	Disturbance to lekking, brood rearing and feeding habitats from recreational activity.	permanent	This is beyond the 2km threshold for daily walking. Therefore usage likely to be medium and long distance walking in evenings and at weekends and by those choosing to arrive by car. This part of the SPA already attracts approximately 40,000 visitors <i>per annum</i> to visitor centre. The area is managed by RSPB to minimise effects by visitors, as far as possible, through encouraging use of promoted paths which are out with key habitat and lekking sites. The RSPB currently deploys Trail Wardens to raise awareness of these issues with a particular emphasis on dog ownership and recreation.	<b>No effect</b>
	Increase in recreation within woods around Carrbridge (Non SPAs) from residents of new development	Reduction in productivity of population within woods around Carrbridge, reducing the viability of meta-population though decreased migration and in effective increased habitat fragmentation	permanent	Proximity of new housing likely to mean frequent additional use of woods by new residents. Lek site is out of sight from paths but high quality habitat for brood rearing is close so disturbance is likely especially from daily dog walking.	<b>Likely significant effect alone</b>
	Occupation of new housing	Disturbance to birds within woods adjacent to housing limiting habitat	permanent	Disturbance is not likely beyond 200m of development. This area is low habitat quality for caper and infrequently used by the birds.	<b>No effect</b>

	Construction activity	Disturbance to birds within woods adjacent to housing limiting habitat	During construction phase only	Disturbance is not likely beyond 200m of development. This area is low habitat quality for caper and infrequently used by the birds.	<b>No effect</b>
Scottish Crossbill	Increase in recreational activity from residents of new development within the SPA and in the woodlands around Carrbridge	Disturbance to nesting sites and feeding habitat	permanent	There is no evidence that species affected by disturbance; species does not nest on the ground. Therefore birds within SPA are unlikely to be affected. The site is not within the SPA and therefore on both counts it is concluded that there is no effect.	<b>No effect</b>
Osprey	Increase in recreational activity from residents of new development within the SPA and in the woodlands around Carrbridge	Disturbance to nesting sites	permanent	Nest sites are managed and protected by RSPB. Visitor centre provides opportunity for viewing without disturbance. General recreation managed by RSPB to minimise effects, as far as possible, by providing promoted paths away from nest sites.  The site is not within the SPA and therefore on both counts it is concluded that there is no effect.	<b>No effect</b>

<b>Anagach Woods SPA</b>					
<b>Qualifying Feature Affected</b>	<b>Possible effect of development</b>	<b>Likely significant effect</b>	<b>Duration</b>	<b>Discussion</b>	<b>Screening outcome</b>

Capercaillie	Increase in recreational activity from residents of new development within the SPA	Disturbance to lekking, brood rearing and feeding habitats from recreational activity.	permanent	SPA is already well used from Grantown residents (circa 2,200). Woodlands are more than 10km from development and unlikely to be a significant target destination. Increase in users is likely to be small. Woodlands already have well used promoted paths with signage requesting responsible access for sake of capercaillie. However population has low productivity and site is considered a 'sink'. Likely access points to woodlands mostly away from key capercaillie areas.	<b>No effect</b>
	Increase in recreation within woodlands around Carrbridge (Non SPA) from residents of new development	Reduction in productivity of population within woodlands around Carrbridge reducing the viability of meta-population though decreased migration and in effect increased habitat fragmentation	permanent	Proximity of new housing likely to mean frequent additional use of woods by new residents. An increase in recreational use, particularly by dog-walkers, of the Docharn and Deshar Wood areas which are used by capercaillie, could result in disturbance.	<b>Likely significant effect alone</b>

<b>Cairngorms SPA</b>					
<b>Qualifying Feature Affected</b>	<b>Possible effect of development</b>	<b>Likely significant effect</b>	<b>Duration</b>	<b>Discussion</b>	<b>Screening outcome</b>

Capercaillie	Increase in recreational activity from residents of new development within the SPA	Disturbance to lekking, brood rearing and feeding habitats from recreational activity.	permanent	A small increase in occasional use of the SPA. The Glenmore area (including the SPA) already attracts 500,000 visitors per annum The area is well managed by FCS and Rothiemurchus to minimise possible effects by visitors through encouraging use of promoted paths which are outwith key habitat and lekking sites.	<b>No effect</b>
	Increase in recreation within woodlands around Carrbridge (Non SPA) from residents of new development	Reduction in productivity of population within woodlands around Carrbridge reducing the viability of meta-population though decreased migration and in effect increased habitat fragmentation	permanent	Proximity of new housing likely to mean frequent additional use of woods by new residents. An increase in recreational use, particularly by dog-walkers, of the Docharn and Deshar Wood areas which are used by capercaillie, could result in disturbance.	<b>Likely significant effect alone</b>
Scottish Crossbill	Increase in recreational activity from residents of new development within the SPA and in the woodlands around Carrbridge	Disturbance to nesting sites and feeding habitat	permanent	500,000 visits to SPA area from existing residents and visitors There is no evidence that species affected by disturbance; species does not nest on the ground. Visits from development residents to SPA too infrequent to have any effect.  The site is not within the SPA and therefore on both counts it is concluded that there is no effect.	<b>No effect</b>
Osprey	Increase in recreational activity from residents of new development within the SPA and in the woodlands around	Disturbance to nesting sites	permanent	Nest sites are well managed and protected by Rothiemurchus. General recreation managed by FCS and Rothiemurchus to encourage recreational access to promoted paths away from nest sites.  The site is not within the SPA and therefore on both counts it is concluded that there is no effect.	<b>No effect</b>

	Carrbridge				
Dotterel	Increase in recreational activity from residents of new development within the SPA and in the woodlands around Carrbridge	Increased disturbance to nesting from more visitors to relevant habitats in the SPA	permanent	<p>Nest sites are in remote uplands. The number of likely visits generated by new development too small to have an effect.</p> <p>The site is not within the SPA and therefore on both counts it is concluded that there is no effect.</p>	<b>No effect</b>
Golden eagle	Increase in recreational activity from residents of new development within the SPA and in the woodlands around Carrbridge	Increase disturbance to nesting from more visitors to relevant habitats in the SPA	permanent	<p>Nest sites are in remote uplands. The number of likely visits generated by new development to the SPA is too small to have an effect.</p> <p>The site is not within the SPA and therefore on both counts it is concluded that there is no effect.</p>	<b>No effect</b>
Merlin	Increase in recreational activity from residents of new development within the SPA and in the woodlands around Carrbridge		permanent	<p>The number of likely visits generated by new development to the SPA is too small to have an effect.</p> <p>The site is not within the SPA and therefore on both counts it is concluded that there is no effect.</p>	<b>No effect</b>
Peregrine	Increase in recreational		permanent	The number of likely visits generated by new development to the SPA is too small to have an	<b>No effect</b>

	activity from residents of new development within the SPA and in the woodlands around Carrbridge			effect.  The site is not within the SPA and therefore on both counts it is concluded that there is no effect.	
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<b>Craigmore Wood SPA</b>					
<b>Qualifying Feature Affected</b>	<b>Possible effect of development</b>	<b>Likely significant effect</b>	<b>Duration</b>	<b>Discussion</b>	<b>Screening outcome</b>
Capercaillie	Increase in recreational activity from residents of new development within the SPA	Disturbance to lekking, brood rearing and feeding habitats from recreational activity.	permanent	SPA is not a popular destination with one promoted path which skirts southern edge and no core paths. New development is unlikely to generate significant increase in users to paths. RSPB management strategy is to keep numbers low by promoting other less sensitive areas.	<b>No effect</b>
	Increase in recreation in woods around Carrbridge (Non SPA) from residents of new development	Reduction in productivity of population within woods around Carrbridge reducing the viability of meta-population though decreased migration and in effect increased habitat fragmentation	permanent	Proximity of new housing likely to mean frequent additional use of woods by new residents. An increase in recreational use, particularly by dog-walkers, of the Docharn and Deshar Wood areas which are used by capercaillie, could result in disturbance.	<b>Likely significant effect alone</b>

<b>Kinveachy Forest SPA</b>					
<b>Qualifying Feature Affected</b>	<b>Possible effect of development</b>	<b>Likely significant effect</b>	<b>Duration</b>	<b>Discussion</b>	<b>Screening outcome</b>
Capercaillie	Increase in recreational activity from residents of new development within the SPA	Disturbance to lekking, brood rearing and feeding habitats from recreational activity.	permanent	This is the closest SPA to Carrbridge but access infrastructure is not well developed; Lek sites are remote and away from path network. The SPA currently attracts a small number of cyclists and walkers from surrounding settlements. This figure could increase significantly with the new development and in particular visits with dogs will increase by as much as 200 per week within a 5 mile radius of the development. Some of these are likely to be within this site. This could have a significant effect if there is much off track activity in particular.	<b>Likely significant effect alone</b>
	Increase in recreation within woods round Carrbridge (Non SPA) from residents of new development	Reduction in productivity of population within woods around Carrbridge, reducing the viability of meta-population though decreased migration and increased habitat fragmentation	permanent	Proximity of new housing likely to mean frequent additional use of woods by new residents. The projected small-scale increase of mountain biking in large trackless areas where capercaillie occur but do not lek or raise broods, such as the Kinveachy Face, is unlikely to result in significant disturbance. Areas such as Baddengorm Woods and Tom a'Thornaidh Mor are considered to be unattractive for recreation use and this is unlikely to change. It is recognised that in these circumstances even a small increase may have a disproportionate effect which may be significant. However, an increase in recreational use, particularly by dog-walkers, of the Docharn and Deshar Wood areas which are used by	<b>Likely significant effect alone</b>

				capercaillie, could result in disturbance.	
Scottish Crossbill	Increase in recreational activity from residents of new development within the SPA and in the woodlands around Carrbridge	Disturbance to nesting sites and feeding habitat	permanent	There is no evidence that species affected by disturbance; species does not nest on the ground.  The site is not within the SPA and therefore on both counts it is concluded that there is no effect.	<b>No effect</b>

<b>Loch Vaa SPA</b>					
<b>Qualifying Feature Affected</b>	<b>Possible effect of development</b>	<b>Likely significant effect</b>	<b>Duration</b>	<b>Discussion</b>	<b>Screening outcome</b>
Slavonian grebe	Increase in SPA of recreational activity from residents of new development	Disturbance to the birds during breeding and brood rearing	permanent	The main risk from disturbance comes if parents are scared off the nest and the eggs or young are then exposed to predation. However the nests at Loch Vaa are away from general recreation areas. The types of recreation of concern have been fishermen; photographers and bird watchers. Walkers, and even dog walkers, are of less concern, given that they are unlikely to venture far into the wet areas frequented by the birds. Outwith nesting season the birds can escape onto the water. It is considered that most use is from people who park nearby on the A95, but it is not generally a well-used site for recreation. We therefore conclude that additional houses in	<b>No effect</b>



				Carrbridge will not add to disturbance.	
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<b>River Spey SAC</b>					
<b>Qualifying Feature Affected</b>	<b>Possible effect of development</b>	<b>Likely significant effect</b>	<b>Duration</b>	<b>Discussion</b>	<b>Screening outcome</b>
Otter	Increase in recreational activity adjacent to the SAC from residents of new development	Disturbance to otters at their resting and breeding sites.	permanent	According to the Core Path Plan consultation, there is already an informal path along the south side of the Dulnain within 150m of the proposed development. This runs through an area of riparian scrub and woodland. The route runs to the north past the Sewage works and there is no obvious circular route connecting back to the village this makes the route way less attractive than alternative promoted paths. There is a risk that otters would be exposed to increased disturbance at a place of rest. Examination on the ground reveals that the path down to the sewage works is well screened from the river. The Ecology walkover survey (September 2013) reports that a 200m buffer around the site was surveyed and this includes this river section. No signs of otter were reported and this included “ indirect evidence of their (larger mammals) presence as well as carefully checking all burrows present.”(4.3). We conclude that although otter may be present in this section of the Dulnain the lack of holts or resting places means that disturbance is not likely to be a significant effect.	<b>No effect</b>
	Construction	Pollution from chemical	Construction	Construction is close to one watercourse, which	<b>Likely significant effect</b>

	activity close to watercourses	leakage and siltation clouding water	period	ultimately feeds into the Dulnain which is part of the River Spey SAC.	<b>alone</b>
Sea Lamprey					
	Construction activity close to watercourses	Pollution from chemical leakage and siltation clouding water	Construction period	Construction is close to one watercourse, which ultimately feeds into the Dulnain which is part of the River Spey SAC.	<b>Likely significant effect alone</b>
Freshwater Pearl Mussel	Pollution from waste water	Increased phosphorous levels in the water may affect FWPM	permanent	SEPA has confirmed that the WWTW has capacity for increased loading without discharging higher levels of pollutants such as phosphates into the river Spey SAC. Phosphorous levels will be monitored as part of standard process by SEPA. Arrangements have been confirmed by email from SEPA 1/8/13. However discharge levels may be different at the time of construction and so it must be ensures that the WTW can manage waste water to this level.	<b>Likely significant effect alone</b>
	Construction activity close to watercourses	Pollution from chemical leakage and siltation clouding water	Construction period	Construction is close to one watercourse, which ultimately feeds into the Dulnain which is part of the River Spey SAC.	<b>Likely significant effect alone</b>
Atlantic Salmon					
	Construction activity close to watercourses	Pollution from chemical leakage and siltation clouding water	Construction period	Construction is close to one watercourse, which ultimately feeds into the Dulnain which is part of the River Spey SAC.	<b>Likely significant effect alone</b>



## Stage 5: In-combination effects

Regulation 48(1)a. is clear in setting out a requirement to include the assessment of the impacts of any development *in combination* with other plans and projects. This is to ensure that any cumulative and synergistic effects that are likely to be significant to the conservation objectives are identified. Where there are LSEs identified at stage 4 they are taken into the appropriate assessment automatically and no in-combination screening is therefore required. Where there are effects identified, but that are not in themselves significant, they will be assessed in combination with other non-significant effects (from within this project and other sources) to see if when combined they become significant. In this situation they too will be taken to the appropriate assessment.

If after being considered at the AA stage an effect is no longer considered to be significant (either in its own right or following mitigation) but that it is still an effect (in other words a 'non-significant' effect) then this too must be brought back to the in-combination screening to see it combines with other non-significant effects to become a significant one.

For this application there were no non-significant effects found either within the screening at stage 4 above or following the AA, therefore an in-combination screening is not required.

## Section 4: Assessment and Conclusions

### Stage 6: Appropriate Assessment

The proposals have been screened in Stages 4 and 5. It was found that for some Natura sites there were likely significant effects upon the qualifying interests. Consequently an appropriate assessment is required to determine the implications for the integrity of the natura sites concerned. The appropriate assessment is in two stages, firstly an appraisal of the impact of the project on the qualifying interests of the site and secondly whether there is an adverse affect upon the integrity of the site. The appropriate assessment follows the standard structure as used by SNH.

#### Natura sites affected

- Abernethy Forest SPA
- Anagach Woods SPA
- Cairngorms SPA
- Craigmore Wood SPA
- Kinveachy Forest SPA
- River Spey SAC

#### Conservation objectives for qualifying interests:

**Abernethy Forest SPA**

To avoid deterioration of the habitats of the qualifying species:

- Capercaillie
- Osprey
- Scottish crossbill

or significant disturbance to the qualifying species, thus ensuring that the integrity of the site is maintained.

To ensure for the qualifying species that the following are maintained in the long term:

- Population of the species as a viable component of the site
- Distribution of the species within site
- Distribution and extent of habitats supporting the species
- Structure, function and supporting processes of habitats supporting the species
- No significant disturbance of the species

### **Anagach Wood SPA**

To avoid deterioration of the habitats of the qualifying species:

- Capercaillie

or significant disturbance to the qualifying species, thus ensuring that the integrity of the site is maintained.

To ensure for the qualifying species that the following are maintained in the long term:

- Population of the species as a viable component of the site
- Distribution of the species within site
- Distribution and extent of habitats supporting the species
- Structure, function and supporting processes of habitats supporting the species
- No significant disturbance of the species

### **Cairngorms SPA**

To avoid deterioration of the habitats of the qualifying species

- Capercaillie
- Dotterel
- Golden eagle
- Merlin
- Osprey
- Peregrine
- Scottish crossbill

or significant disturbance to the qualifying species, thus ensuring that the integrity of the site is

maintained.

To ensure for the qualifying species that the following are maintained in the long term:

- Population of the species as a viable component of the site
- Distribution of the species within site
- Distribution and extent of habitats supporting the species
- Structure, function and supporting processes of habitats supporting the species
- No significant disturbance of the species

### **Craigmore Wood SPA**

To avoid deterioration of the habitats of the qualifying species:

- Capercaillie

or significant disturbance to the qualifying species, thus ensuring that the integrity of the site is maintained.

To ensure for the qualifying species that the following are maintained in the long term:

- Population of the species as a viable component of the site
- Distribution of the species within site
- Distribution and extent of habitats supporting the species
- Structure, function and supporting processes of habitats supporting the species
- No significant disturbance of the species

### **Kinveachy Forest SPA**

To avoid deterioration of the habitats of the qualifying species:

- Capercaillie
- Scottish Crossbill

or significant disturbance to the qualifying species, thus ensuring that the integrity of the site is maintained.

To ensure for the qualifying species that the following are maintained in the long term:

- Population of the species as a viable component of the site
- Distribution of the species within site
- Distribution and extent of habitats supporting the species
- Structure, function and supporting processes of habitats supporting the species
- No significant disturbance of the species

### **River Spey SAC**

To avoid deterioration of the habitats of the qualifying species:

- Atlantic salmon
- Freshwater pearl mussel
- Otter
- Sea lamprey

or significant disturbance to the qualifying species, thus ensuring that the integrity of the site is maintained.

To ensure for the qualifying habitats that the following are maintained in the long-term:

- Population of the species, including range of genetic types for salmon, as a viable component of the site
- Distribution of the species within site
- Distribution and extent of habitats supporting the species
- Structure, function and supporting processes of habitats supporting the species
- No significant disturbance to the species
- Distribution and viability of freshwater pearl mussel host species
- Structure, function and supporting processes of habitats supporting freshwater pearl mussel host species

### **Will the development adversely affect the sites' conservation objectives?**

#### **Abernethy Forest SPA Qualifying Interest:**

Capercaillie – Site condition: favourable maintained. The capercaillie issues are common to five of the SPAs. These have been taken together for simplicity and to avoid repetition. See section on capercaillie under 'Assessment against the Conservation Objectives' below.

Osprey – Screened out in table 3

Scottish crossbill – Screened out in table 3.

#### **Anagach Woods SPA Qualifying Interest:**

Capercaillie – Site condition: Favourable maintained (2010). The capercaillie issues are common to five of the SPAs. These have been taken together for simplicity and to avoid repetition. See section on capercaillie under 'Assessment against the Conservation Objectives' below.

#### **Cairngorms SPA Qualifying Interest:**

Capercaillie – Site condition: favourable maintained. The capercaillie issues are common to five of the SPAs. These have been taken together for simplicity and to avoid repetition. See section on capercaillie under 'Assessment against the Conservation Objectives' below.

Dotterel – Screened out in table 3.

Golden eagle – Screened out in table 3.

Merlin – Screened out in table 3.

Osprey – Screened out in table 3.

Peregrine – Screened out in table 3.

Scottish crossbill - Screened out in table 3.

**Craigmore Wood SPA Qualifying Interest:**

Capercaillie – Site condition: unfavourable no change. The capercaillie issues are common to five of the SPAs. These have been taken together for simplicity and to avoid repetition. See section on capercaillie under ‘Assessment against the Conservation Objectives’ below.

**Kinveachy Forest SPA Qualifying Interest:**

Capercaillie – Site condition: favourable maintained. The capercaillie issues are common to five of the SPAs. These have been taken together for simplicity and to avoid repetition. See section on capercaillie under ‘Assessment against the Conservation Objectives’ below.

Scottish crossbill – Screened out in table 3.

**River Spey SAC Qualifying Interest:**

Otter – Site condition: favourable maintained. Potential for sedimentation and/or pollution from construction activities, as well as from recreational disturbance.

Atlantic salmon – Site condition: unfavourable recovering. Potential for sedimentation and/or pollution from construction activities.

Sea lamprey – Site condition: favourable maintained. Potential for sedimentation and/or pollution from construction activities.

Freshwater pearl mussel – Site condition: unfavourable recovering. Potential for sedimentation and/or pollution from construction activities.

**Assessment against the Conservation Objectives:**

**Capercaillie**

**I. Population of capercaillie as a viable component of the sites and distribution of capercaillie within the Special Protection Areas**

The woods around Carrbridge are home to a resident population where lekking and brood-rearing takes place, so can be considered as a functioning part of the Strathspey meta-population. It therefore has potential to export birds to the five surrounding SPAs. Scotland’s capercaillie population contains six meta-populations, of which Strathspey is the largest and most important (Poole, 2010). The more birds that there are in the meta-population, the more viable the population and the more robust it would be to a catastrophic event at any one site.

Capercaillie will move from site to site, sometimes over large distances (Moss et al, 2006). The



woods around Carrbridge are strategically located relatively close to and between Abernethy Forest, Anagach Woods, Cairngorms, Craigmore Woods and Kinveachy SPAs, all of which support significant elements of the Strathspey meta-population. Given this location, the woods around Carrbridge can be considered to function as a potential 'stepping stone' for capercaillie, e.g. by facilitating movement between SPAs and also with other undesignated habitat as a temporary refuge. In addition the permanent use of such woodland provides for a greater area of habitat that supports a larger 'buffer' population of capercaillie thus improving its resilience across the whole area as well as the individual SPAs. This may be a vital location in its function of facilitating the retention of genetic diversity in the meta-population and avoiding inbreeding depression.

If recreational disturbance increased as a result of the proposed housing development, the wood could become unsuitable for capercaillie and connectivity between SPAs on each side of Strathspey may be impaired and the 'meta-population' could suffer as a result.

**It is concluded that the population of capercaillie as a viable component of the SPAs, and the distribution of capercaillie within the SPAs, could be indirectly affected by the proposals if that part of the meta-population using the woods around Carrbridge was to be subject to an increase in disturbance as a result of this development.**

**If, through delivery of effective mitigation, the capercaillie in the woods around Carrbridge are not subject to an increase in disturbance and can continue to live and breed successfully, then the population using the SPAs would be unaffected by this housing development (this is addressed further below).**

## **2. Distribution and extent of habitats supporting capercaillie and structure, function and supporting processes of habitat supporting capercaillie**

The proposed development lies outwith any SPA and does not include any habitat used by capercaillie. There is poor quality habitat which is rarely used by capercaillie.

**It is concluded that there will be no effect upon this conservation objective.**

## **3. No significant disturbance of capercaillie**

There are three ways in which the proposed housing development could cause increased disturbance to capercaillie:

- Disturbance during construction.
- Disturbance arising directly from the housing site once it is occupied.
- An increased number of people recreating within the wider woodland.

### **Disturbance during construction**

It was concluded at screening in table 3 that there is no effect from this source.

### **Disturbance arising directly from the housing site once it is occupied**

It was concluded at screening in table 3 that there is no effect from this source.

### **Increased recreational use of the wider woodlands**

Recreational use around the village is likely to increase as a result of the proposed development, because the overall number of people living in the village would increase. This would be a long-term and permanent effect. If there is additional recreational use in woodlands used by capercaillie, this is likely to increase disturbance. It is this additional recreational use - arising from the proposed development - which is being evaluated in this appraisal, although the existing use is an 'in combination' effect which is also taken into account.

Clearly some of the path users are visitors, not local residents. Visitor use is likely to be focussed on the promoted path network as shown in the Carrbridge paths leaflet, and these routes are not in the areas most important for capercaillie.

In the 2001 census, Carrbridge's population was 708. The 2011 census show this to have risen to 792. A total of 96 dwelling units are proposed in this development, of which 24 would be affordable housing. These tend to have a higher occupancy level than private market homes. Using the 3.2 people per unit figure provided at Boat of Garten (B1179568, based on rationale in para 9.2.2, MBEC, 2011), the 24 affordable houses would be occupied by 76 people. There would be 72 private market homes. The present overall occupancy rate in Carr-Bridge is 2.4 (708 people living in 291 households). Assuming the same residency rate for the private market homes, they would be occupied by 172 people. In total, then, we can expect this development to increase the village population by around 248 people, or 31%.

Overall, we could expect an increase in recreational visits to the outdoors around Carrbridge of a broadly similar magnitude. The next question to address is whether this increase is likely to happen in places, times, or ways which would result in significant disturbance to capercaillie in the surrounding area. Evidence of existing levels and patterns of recreational use around Carrbridge is summarised in Appendix 4. The main source of evidence is the knowledge of the staff involved at a meeting on 2nd May 2013 to discuss and agree our collective understanding of levels and patterns of recreational use around Carr-bridge, our predictions of changes that would arise if the proposed development went ahead, and the implications these changes would have for disturbance to capercaillie. CNPA natural heritage and access staff, local SNH Operations staff, and the Capercaillie Project Officer all attended the meeting.

Appendix 4 also describes the predicted changes to levels and patterns of recreational use arising from the proposed development and the potential effects on capercaillie. The main recreational effects of the proposed development which could result in significant disturbance to capercaillie relate to walking and dog-walking on the Docharn circular route and some of the forest tracks in Deishar Wood.

### **Additional Mitigation**

From the assessment against the conservation objective it is apparent that issue of concern is recreational disturbance from the occupants of the development. This finding is consistent with those of the HRA for the draft Local Development Plan. Accordingly mitigation measures must address this issue and this can be delivered through the production of a recreation management plan (RMP) for capercaillie.

The HRA for the consultation draft of the Local Development Plan identified 10 criteria for RMPs. These were devised by CNPA in consultation with SNH and are designed to provide a robust and adaptable framework for the development of RMP that will give sufficient certainty of outcomes regarding the integrity of SPAs. These criteria were used to assess the housing development proposals at Boat of Garten. This was granted planning permission on 21/6/2013.

The requirement for the proposed development will follow similar lines and the criteria below have been adapted to the specific circumstances in this case.

**It must be a condition of any consent that the master plan must include a recreation management plan that fulfils all of the criteria below. The condition must require that the RMP is agreed by the CNPA prior to commencement of the development on the site and that the measures within the RMP must be fully implemented prior to occupation of any part of the site. The RMP must contain mitigation measures to manage the recreation activity of the area to ensure no increase in disturbance to the**

**capercaillie. It will include physical measures within and out with the development site to facilitate this outcome. It must set out the mechanism(s) to deliver the RMP, within the application site, on other land in the control of the applicant, and for all other locations where recreational management measures will be required.**

**Criterion 1** - Current and estimated recreational use and provision: The mitigation measures must be based upon the known recreational use of the area and take account of the predicted future recreation demand arising from the proposed development. This must be included within the RMP

**Criterion 2** - Best practice: The mitigation measures must be built on best practice and scientific evidence and reference should be made to relevant examples locally and elsewhere in UK or Europe where similar approaches have been proven to be effective in such situations

**Criterion 3** - Location and time-specific: The mitigation measures must be designed to avoid an increase in disturbance in parts of the woods around Carrbridge currently used by capercaillie, where the development will cause disturbance effects to birds supporting the meta population. They must analyse information on the sensitivity of different parts of the woods for Capercaillie, and the sensitivity of different times of the day and year, alongside consideration of current and likely future levels and patterns of recreational use.

**Criterion 4** - Paths and peoples' use: The mitigation measures must consider the network of paths, which meets the needs of the community and addresses the management needs of Capercaillie and are practical and enforceable. This will include provision within the development as well as possible changes to the network outwith the development area. The measures must demonstrate how they will ensure that there is no increase in recreational disturbance by people and dogs off paths, or on minor / informal paths, as a result of this development and that how the proliferation of new informal paths will be avoided.

**Criterion 5** - Community engagement and support: The measures must demonstrate effective engagement with the existing community, the future community of the development and recreational users with a sufficient degree of support to ensure the proposals are effective.

**Criterion 6** - Alternative recreational provision: The mitigation measures must demonstrate how any predicted increases in the types of recreational use that are likely to disturb Capercaillie (e.g. dogs ranging off paths) will be catered for and diverted to a suitable location that won't disturb Capercaillie.

**Criterion 7** - Any Screening measures, if required, may include planting and vegetation management. They must be effective and commensurate with the phasing of the development, including the construction phase.

**Criterion 8** - Practical enforcement: The mitigation measures must demonstrate that the measures will be practically enforceable and maintained for the lifetime of the development.

**Criterion 9** - Phasing: The mitigation proposals must identify how mitigation measures will be effective at the appropriate time in line with the construction and development phasing.

**Criterion 10** - Monitoring, review and adaptive management: The mitigation and management measures must be monitored and reviewed to ensure effectiveness for the lifetime of the development and a mechanism put in place to take further management measures to reduce disturbance if necessary. A full monitoring programme must be included within the RMP.

An RMP for the proposed development should include the various requirements recommended by SNH in their Natura appraisal, which were to:

- a. reinforce the promoted Carr-Bridge path network as the best locations for recreational use, particularly off-lead dog walking;
- b. consider whether the extent and quality of the promoted path network around the village should be improved (for example within Carr Plantation) to enhance its ability to cater for a wide range of village residents' and visitors' everyday recreational needs;
- c. promote responsible behaviour amongst those that wish to take recreation in the woods used by capercaillie, in particular asking people to keep dogs on a lead, and to keep to paths, during the period 1st April to 15th August (or 31st August if this is agreed as the better end date to the sensitive period for capercaillie);
- d. include a coherent strategy to communicate these messages by a variety of complementary methods;
- e. target promotional and educational activity at all residents of, and visitors to, the village, with an additional focus on residents of the proposed housing development and potential users of the Docharn circular route and Deishar Woods;
- f. meet the criteria set out in the HRA of the draft Cairngorms Local Development Plan;
- g. be approved by CNPA prior to implementation;
- h. be implemented prior to occupation of the first houses.

### **Conclusion on site integrity**

**With the mitigation fully implemented and effective at the time of occupation, there will be no adverse effect upon the integrity of the Abernethy Forest, Anagach Woods, Craigmore Woods, Cairngorms and Kinveachy Forest SPAs.**

### **River Spey SAC**

#### **Effect on conservation objectives**

At the SW end of the proposal site, development would be located immediately adjacent to a watercourse that ultimately flows into the Dulnain, and thus the River Spey SAC, approximately 4 km downstream. This watercourse would also be bridged to allow vehicular access to that part of development site. Spillage of chemicals, physical damage and siltation may occur from operations close to this watercourse. The use of hard impervious surfaces within development is likely to increase the speed with which rainfall enters watercourses. This can increase flood events causing damage to river habitats. This rainfall may also bring particles from these surfaces that could cloud water and reduce its quality.

It has been concluded at screening stage (Table 3) that there is no likely significant effect of disturbance to otter within the SAC.

#### **Qualifying species**

##### Otter (*Lutra lutra*)

This species occurs in the River Dulnain. Accidental chemical pollution arising from incidents during construction may affect the distribution of the species either directly from toxic effects on individuals or indirectly through affects upon food source.

##### Sea lamprey (*Petromyzon marinus*)

According to SNH's Natura Appraisal, the River Dulnain is not known to support sea lampreys, but the species could occur on the stretch of the Spey between the Dulnain's confluence with the Spey and Grantown. It is unlikely therefore those sea lampreys would be affected by any

sedimentation arising from incidents during construction at Carrbridge. However catastrophic pollutant from vehicles could conceivably cause localised pollution effects.

Atlantic salmon (*Salmo salar*)

This species does occur on the Dulnain and any accidental chemical pollution arising from incidents during construction may affect the distribution of the species and its supporting habitats.

Freshwater pearl mussel (*Margaritifera margaritifera*)

This species does occur in low numbers on the Dulnain and so any accidental chemical pollution or sedimentation arising from incidents during the construction phase may affect the distribution of the species and its supporting habitats.

FWPMs are susceptible to unnaturally high levels of nutrients, particularly molybdate-reactive phosphorus (MRP), within the water. The effect of MRP is to encourage algal growth especially within interstitial spaces in riverbed substrate; this may lead to the suffocation of juveniles and inhibit their recruitment to existing or new beds. The safe limit varies from river to river as water chemistry and population characteristics are not uniform across the UK. Currently a limit of 0.03mg/l is recommended. Data from SEPA shows that during the period of 2000 – 2006 this level was reached or exceeded on four occasions in the Spey near Aviemore and twice near Boat of Garten, but more recent data are not available. The River Basin Management Plan 2010 has classified this water body as having an overall status of Moderate with Medium confidence in 2008 with overall ecological status of Moderate and overall chemical status of – “Pass”. The safe limit for juvenile FWPM is considered below that for adults. There is no European standard for MRP and juvenile recruitment is recorded at different levels across the continent with the lowest figure in Ireland at 0.005mg/l and the highest figure being in Norway at 0.015mg/l. SNH are carrying out Site Condition Monitoring on the River Spey in 2013 and this will provide an up-to-date assessment of the conservation status of the qualifying species, including in relation to nutrient pollution.

A major source of phosphorous is from either treated or untreated wastewater being discharged into watercourses. SNH (2007) identified that the main pressure on MRP levels on the river Spey is from point sources associated with wastewater treatment works (WWTWs). The proposal for the housing development application is to take all wastewater to the public treatment works at Carrbridge, which would experience an estimated 35% increase in volume relative to the projected population increase brought about by the development.

SEPA have confirmed that the Carrbridge WWTW has recently been upgraded and would have capacity for this anticipated increase without discharging higher levels of pollutants into the River Dulnain. SEPA regularly test discharge at WWTWs and should Carrbridge fail to meet standards, then Scottish Water would be obliged to upgrade the works in order to obtain a Controlled Activities Regulations (CAR) licence from SEPA. There is therefore a high level of certainty that these measures will be effective, because there is both a Competent Authority (SEPA) and legislation (CAR) to enforce the necessary standards.

Given the current uncertainty over the appropriate water quality standard for freshwater pearl mussel and the likelihood of stricter standards in future compared to those in place when the current WWTW was approved, adverse effects could be avoided by ensuring that development may not commence until it has been demonstrated that there is sufficient ability to remove pollutants to a level where there will be no adverse effects on freshwater pearl mussel in the River Spey SAC, based on the recommended water quality standards for freshwater pearl mussel **at the time of construction**.

Atlantic salmon and otter are also present in the River Dulnain but are less sensitive to nutrient pollution so, by ensuring the water quality standards for levels freshwater pearl mussel are met, there will be no adverse effects on the integrity of the River Spey SAC for any of the qualifying species.

### **Additional mitigation**

There are a number of mitigations required for the above effects:

#### **1. Construction method statement**

A condition must be applied to a permission that requires a construction method statement (CMS) to be agreed with the CNPA prior to the start of construction on site for each phase of construction. The CMS must clearly demonstrate that risks to watercourses and ground water are eliminated through application of good site management in accordance with accepted best practice and guidelines. This must be in accordance with recognising best practice guidelines in particular SEPA PPG 1, 5 and 6. Where required through statute, Controlled Activities Regulations (CAR) must be complied with. Development must not commence until it has been demonstrated to the planning authority that the measures in the CMS have been adopted for onsite management.

This is a well-practised approach that is applied to many construction projects and it will effectively manage these risks. This will mitigate the effects upon Otter, Atlantic salmon, sea lamprey and freshwater pearl mussel and ensure that there will be no effect upon the distribution of the species or their supporting habitats

#### **2. SUDS**

A condition must be applied requiring fully detailed SUDS. This must clearly demonstrate that flooding and particle discharge into the river arising from the site will be prevented. The SUDS must be fully implemented prior to the point it is required for effective operation.

An approved scheme will mitigate the effect of run-off from the site and its required implementation prior to development will ensure compliance.

### 3. Wastewater

A condition must be applied to this application preventing occupation of any dwelling until the development is connected to the public wastewater system. It must be clearly demonstrated that this system is capable of handling the additional wastewater at the time of connection, and treating it to the required standards appropriate to freshwater pearl mussel at that time.

This will prevent pollution arising from the development by ensuring it is treated to acceptable standards. This will mitigate likely significant effect affecting the distribution and supporting habitat for freshwater pearl mussel.

#### **Minor residual effects**

There is no minor residual effect remaining upon this site.

#### **Conclusion on site integrity**

**With the mitigation fully implemented and effective at the time of construction and occupation, there will be no adverse effect upon the integrity of the River Spey SAC.**

### **Stage 7: Consultation**

Regulation 48(3) requires the authority to consult with the appropriate conservation body and to have regard to their representations. This is in such cases where a LSE is identified and an appropriate assessment is undertaken. In Scotland SNH is the appropriate conservation body. The draft report and its conclusion were subject to such consultation. Their response is contained within a letter of 3/9/2013 and the pertinent points are listed in appendix 5.

Wider consultation of the draft report is at the discretion of the competent authority. In this case it was decided that consultation with the RSPB should be undertaken because of their central interest in the main subject of the assessment. Their representation of the 28/8/2013 is also included within Appendix 5.

### **Stage 8: Additional mitigation**

Natura site regulation 48(6) requires the competent authority to:

“(6) In considering whether a plan or project will adversely affect the integrity of the site, the authority shall have regard to the manner in which it is proposed to be carried out or to any conditions or restrictions subject to which they propose that the consent, permission or other authorisation should be given”

In cases where significant effects have been identified upon the qualifying features the authority must give consideration to what additional measures may be applied by way of a condition to ensure that there are no adverse effects so that the integrity of the site is maintained.

The appropriate assessment identifies in detail the mitigation required to ensure no LSE. This is summarised below:

A Recreation Management Plan is required for the following sites:

- Abernethy Forest SPA
- Anagach Woods SPA
- Cairngorms SPA
- Craigmore Wood SPA
- Kinveachy Forest SPA

A construction method statement is required for the following site:

- River Spey SAC

A SUDS is required for the following site:

- River Spey SAC

Management of Waste water is required for the following site:

- River Spey SAC

All mitigation must be secured by condition to the planning permission and at the time specified in the appropriate assessment.

### **Stage 9: Conclusion on the integrity test**

The assessment based upon the best available scientific evidence and advice offered from SNH and others has shown that there is no likely significant effect from the proposed development, in combination with the additional mitigation identified, upon the qualifying features or the conservation objectives for the following Natura sites:

- Abernethy Forest SPA
- Anagach Woods SPA
- Cairngorms SPA
- Craigmore Wood SPA
- Kinveachy Forest SPA
- Loch Vaa SPA
- River Spey SAC

We therefore conclude that the proposed development will not adversely affect the integrity of any of these sites so long as the mitigation is implemented.

### **Stage 10: Section 49 (derogation)**

The conclusion that there is no adverse effect upon the integrity of any of the Natura sites covered in this report means that regulation 49 is not relevant.



## References

### Habitat Regulations process

- Council Directive 92/43/EEC “the Habitats Directive” EEC adopted 1992
- Managing Natura 2000 sites – EU communities 2000
- Guidance document on Article 6(4) of the 'Habitats Directive' 92/43/EEC - EC 2007
- The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended)
- Welsh Assembly Government TAN 5: Nature Conservation and Planning - 2009
- Habitat Regulations Appraisal of Plans – Guidance for Plan Making Bodies in Scotland SNH/DTA August 2012 (Version 2.0)

### Other sources

- Cairngorms National Park Core Paths Plan 2010 – CNAP - 2010
- Cairngorms Outdoor Access Strategy 2007-2012 – CNPA 2007
- Census data 2001 – General Census Office for Scotland
- National Travel Survey 2010 Statistical release Department of Transport. 2011
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**Appendix I - Details of Natura 2000 sites within, or adjacent to, the Cairngorms National Park**

Name of European Site	Abernethy Forest
Site Type	Special Protection Area
Conservation Objectives	<p>To avoid deterioration of the habitats of the qualifying species (listed below) or significant disturbance to the qualifying species, thus ensuring that the integrity of the site is maintained; and</p> <p>To ensure for the qualifying species that the following are maintained in the long-term:</p> <ul style="list-style-type: none"> <li>• Population of the species as a viable component of the site</li> <li>• Distribution of the species within the site</li> <li>• Distribution and extent of habitats supporting the species</li> <li>• Structure, function and supporting process of habitats supporting the species</li> <li>• No significant disturbance of the species</li> </ul>
Qualifying Species	<ul style="list-style-type: none"> <li>• Capercaillie (<i>Tetrao urogallus</i>)</li> <li>• Osprey (<i>Pandion haliaetus</i>)</li> <li>• Scottish crossbill (<i>Loxia scotica</i>)</li> </ul>
Site Condition	<ul style="list-style-type: none"> <li>• Capercaillie, breeding, 2009. Favourable maintained.</li> <li>• Osprey, breeding, 2007. Favourable maintained.</li> <li>• Scottish crossbill, not monitored to date.</li> </ul>
Factors currently influencing site	In terms of development, no factors currently influencing site

Name of European Site	Anagach Woods
Site Type	Special Protection Area
Conservation Objectives	<p>To avoid deterioration of the habitats of the qualifying species (listed below) or significant disturbance to the qualifying species, thus ensuring that the integrity of the site is maintained; and</p> <p>To ensure for the qualifying species that the following are maintained in the long-term:</p> <ul style="list-style-type: none"> <li>• Population of the species as a viable component of the site</li> <li>• Distribution of the species within the site</li> <li>• Distribution and extent of habitats supporting the species</li> <li>• Structure, function and supporting process of habitats supporting the species</li> <li>• No significant disturbance of the species</li> </ul>
Qualifying Species	<ul style="list-style-type: none"> <li>• Capercaillie (Tetrao urogallus)</li> </ul>
Site Condition	<ul style="list-style-type: none"> <li>• Breeding capercaillie, Favourable Condition (201).</li> </ul>
Factors currently influencing site	Impact from disturbance from adjacent village and footpaths within the wood

Name of European Site	Cairngorms
Site Type	Special Protection Area
Conservation Objectives	<p>To avoid deterioration of the habitats of the qualifying species (listed below) or significant disturbance to the qualifying species, thus ensuring that the integrity of the site is maintained; and</p> <p>To ensure for the qualifying species that the following are maintained in the long-term:</p> <ul style="list-style-type: none"> <li>• Population of the species as a viable component of the site</li> <li>• Distribution of the species within the site</li> <li>• Distribution and extent of habitats supporting the species</li> <li>• Structure, function and supporting process of habitats supporting the species</li> <li>• No significant disturbance of the species</li> </ul>
Qualifying Species	<ul style="list-style-type: none"> <li>• Capercaillie (<i>Tetrao urogallus</i>)</li> <li>• Dotterel (<i>Charadrius moninellus</i>)</li> <li>• Golden eagle (<i>Aquila chrysaetos</i>)</li> <li>• Merlin (<i>Falco columbarius</i>)</li> <li>• Osprey (<i>Panion haliaetus</i>)</li> <li>• Peregrine (<i>Falco peregrinus</i>)</li> <li>• Scottish crossbill (<i>Loxia scotica</i>)</li> </ul>
Site Condition	<ul style="list-style-type: none"> <li>• Breeding dotterel, 1999. Favourable maintained.</li> <li>• Breeding golden eagle, 2003. Favourable maintained.</li> <li>• Breeding osprey, 2006. Favourable maintained.</li> <li>• Breeding peregrine, 2002. Favourable maintained.</li> </ul>
Factors currently influencing site	In terms of development, none at present

Name of European Site	Craigmore Wood
<b>Site Type</b>	<b>Special Protection Area</b>
Conservation Objectives	<p>To avoid deterioration of the habitats of the qualifying species (listed below) or significant disturbance to the qualifying species, thus ensuring that the integrity of the site is maintained; and</p> <p>To ensure for the qualifying species that the following are maintained in the long-term:</p> <ul style="list-style-type: none"> <li>• Population of the species as a viable component of the site</li> <li>• Distribution of the species within the site</li> <li>• Distribution and extent of habitats supporting the species</li> <li>• Structure, function and supporting process of habitats supporting the species</li> <li>• No significant disturbance of the species</li> </ul>
Qualifying Species	<ul style="list-style-type: none"> <li>• Capercaillie (Tetrao urogallus)</li> </ul>
Site Condition	<ul style="list-style-type: none"> <li>• Capercaillie, 2009. Unfavourable no change.</li> </ul>
Factors currently influencing site	In terms of development, none at present

Name of European Site	Kinveachy Forest
<b>Site Type</b>	<b>Special Protection Area</b>
Conservation Objectives	<p>To avoid deterioration of the habitats of the qualifying species (listed below) or significant disturbance to the qualifying species, thus ensuring that the integrity of the site is maintained; and</p> <p>To ensure for the qualifying species that the following are maintained in the long-term:</p> <ul style="list-style-type: none"> <li>• Population of the species as a viable component of the site</li> <li>• Distribution of the species within the site</li> <li>• Distribution and extent of habitats supporting the species</li> <li>• Structure, function and supporting process of habitats supporting the species</li> <li>• No significant disturbance of the species</li> </ul>
Qualifying Species	<ul style="list-style-type: none"> <li>• Capercaillie (Tetrao urogallus)</li> <li>• Scottish crossbill (Loxia scotica)</li> </ul>
Site Condition	<ul style="list-style-type: none"> <li>• Capercaillie (Tetrao urogallus), 2009. Favourable maintained.</li> <li>• Scottish crossbill (Loxia scotica), not monitored to date.</li> </ul>

Factors currently influencing site	In terms of development, none at present.
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Name of European Site	Loch Vaa
Site Type	<b>Special Protection Area</b>
Conservation Objectives	<p>To avoid deterioration of the habitats of the qualifying species (listed below) or significant disturbance to the qualifying species, thus ensuring that the integrity of the site is maintained; and</p> <p>To ensure for the qualifying species that the following are maintained in the long-term:</p> <ul style="list-style-type: none"> <li>• Population of the species as a viable component of the site</li> <li>• Distribution of the species within the site</li> <li>• Distribution and extent of habitats supporting the species</li> <li>• Structure, function and supporting process of habitats supporting the species</li> <li>• No significant disturbance of the species</li> </ul>
Qualifying species	<ul style="list-style-type: none"> <li>• Slavonian grebe (<i>Podiceps auritus</i>)</li> </ul>
Site Condition	<ul style="list-style-type: none"> <li>• Slavonian grebe (<i>Podiceps auritus</i>), 2010. Unfavourable no change.</li> </ul>
Factors currently influencing site	In terms of development, none at present

Name of European Site	River Spey
Site Type	<b>Special Area of Conservation</b>
Conservation Objectives	<p>To avoid deterioration of the habitats of the qualifying species (listed below) or significant disturbance to the qualifying species, thus ensuring that the integrity of the site is maintained and the site makes an appropriate contribution to achieving favourable conservation status for each of the qualifying features; and</p> <p>To ensure for the qualifying habitats that the following are maintained in the long-term:</p> <ul style="list-style-type: none"> <li>• Population of the species, including range of genetic types for salmon, as a viable component of the site</li> </ul>



	<ul style="list-style-type: none"> <li>• Distribution of the species within site</li> <li>• Distribution and extent of habitats supporting the species</li> <li>• Structure, function and supporting processes of habitats supporting the species</li> <li>• No significant disturbance to the species</li> <li>• Distribution and viability of freshwater pearl mussel host species</li> <li>• Structure, function and supporting processes of habitats supporting freshwater pearl mussel host species</li> </ul>
Qualifying Interest(s)	<ul style="list-style-type: none"> <li>• Atlantic salmon</li> <li>• Freshwater pearl mussel</li> <li>• Otter</li> <li>• Sea lamprey</li> </ul>
Site Condition	<ul style="list-style-type: none"> <li>• Atlantic salmon, 2005. Unfavourable recovering.</li> <li>• Freshwater pearl mussel, 2005. Unfavourable recovering.</li> <li>• Otter, 2007. Favourable maintained.</li> <li>• Sea lamprey, 2007. Favourable maintained.</li> </ul>
Factors currently influencing site	In terms of development, none at present

## Appendix 2

### Glossary of terms and abbreviations

<b>Appropriate Assessment (AA)</b>	The part of the Habitats Regulations Assessment process that considers the effects of an aspect of a plan upon the conservation objectives for a Natura site.
<b>CNPA</b>	Cairngorms National Park Authority
<b>Competent Authority</b>	The decision making body required under the Habitats Directive to undertake HRA. This includes Scottish Government, National Park Authorities or Local Authorities.
<b>CPP</b>	Core Paths Plan
<b>Habitats Regulation Assessment (HRA)</b>	The whole appraisal process for determining effects upon Natura Sites. It includes Appropriate Assessments. It is a requirement by the Habitats Directive that competent authorities carry out HRAs where a plan or project affects a Natura site.
<b>CLDP</b>	Draft Cairngorms National Park Local Development Plan
<b>Natura Sites</b>	Collective term for Special Protection Areas and Special Areas of Conservation
<b>Ramsar sites</b>	Ramsar sites are wetlands of international importance designated under the Ramsar Convention 1971. Not technically Natura sites they are however usually also SPAs. They are included within the HRA process by policy.
<b>Special Area of Conservation (SAC)</b>	An area designated for the protection of habitats and species. Authorised under Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (commonly called the “Habitats Directive”). One of three designation to be considered in a HRA
<b>Special Protection Area (SPA)</b>	An area designation for the protection of birds. Authorised by the Directive 2009/147/EC of the European Parliament and of the Council (commonly called the “Birds Directive”). One of three designation to be considered in a HRA

## Appendix 3

### Capercaillie; background information

The Scottish capercaillie population declined significantly between the 1970s and 1990s. From an estimated 20,000 birds in 1970, numbers fell to 2189 birds in the first national survey in 1993/94. A survey in 1998/99 estimated a population of just 1073 birds (95% C.L.549-2041) - a decline of 51% between the two surveys. The 2003/04 survey gave an estimate of 1980 birds, which could potentially to be considered an overestimate in light of results developing from the 2009/10 survey which indicates a population size of 1285 (a non-statistically significant decline) (Ewing et al. 2012). Despite this uncertainty, it is considered that the national population of capercaillie is currently stable after a period of rapid and significant decline (Eaton et al, 2007). However, the national population is still small (the UKBAP target for the species was 5000 birds by 2010 and this target has clearly not been met) and its range is contracting significantly. The 2003/04 Capercaillie national survey suggested that the range of Capercaillie had contracted into core habitat, with over 60% of all birds recorded occurring in Strathspey (Eaton et al, 2007). This figure has recently been estimated to now be c.75% in Strathspey (Poole, 2010) due to reductions elsewhere. 77% of Capercaillie cocks observed during lek surveys from the spring of 2012 were in Strathspey (Table 9.). Although capercaillie numbers have held up in Strathspey, the population is now extremely vulnerable elsewhere. Capercaillie persist in other areas (Deeside, Donside, Easter Ross, Moray and Perthshire) but these populations are more fragmented, numbers are lower and breeding success poorer. The Strathspey capercaillie population is crucial to the long-term survival of the species in the UK.

Table 1. Summary of total and average number of cocks on active leks in Scotland in 2012:

Region	No. of active leks	Min No. of cocks	Mean cocks/lek
Perthshire and Loch Lomond	2	3	1.50
Deeside and Donside	12	19	1.58
Moray and Nairnshire	9	12	1.33
Easter Ross	6	13	2.17
Strathspey	42	155	3.69
<b>TOTAL</b>	<b>71</b>	<b>202</b>	<b>3.00</b>

The Cairngorms SPA is one of five SPAs in Badenoch and Strathspey. Together with a number of undesignated woodlands they form a network of habitat for the species that

contains the meta-population described above. The other SPAs are Abernethy Forest, Kinveachy Forest, Craigmore Wood and Anagagh Wood. The network of habitat is functional because of the relative proximity of the SPAs to the other woodlands which often act as stepping stones between them. The distance capercaillie will disperse has been subject to a number of studies. Storch (1995) radio-tracked 40 capercaillie in the Bavarian Alps and found that throughout the year distances of females from the leks they attended in spring averaged 1.3 km (Standard Error = 0.1 km). In winter and spring males aggregated within a 1 km radius of the lek, but dispersed within a 3 – 4 km radius during summer. Storch (2001 cited in Moss et al 2006) concluded that most males settle close to their chick range but young female dispersal distances were typically 5 – 10 km. A radio-tracking study of males at leks in Russia and Norway recorded average dispersal distance of males to summer range of 2.3 km, SE = 0.37 (Russia 2.2.km, SE = 0.70; Norway 2.4 km, SE = 0.43) (Hjelford et al. 2000). Storch & Segelbacher (2000) summarised known movements as average seasonal movements of 1 – 2 km for adults and median dispersal distances of < 10 km for juveniles. The distances recorded in a Scottish study (Moss et al. 2006) are somewhat longer than those above, which may be related to the fragmented nature of Scottish forests. This study showed first-winter dispersal distances of 13 hens radio-tracked ranged within 1 – 30 km (median: 11, mean 12.3, SD 9.8).

Habitat suitable for capercaillie in Scotland is heavily fragmented into comparatively small areas of forest. None of the capercaillie populations in these individual woodlands have the capability to be self-sustaining in the long term. For genetic diversity to prevent inbreeding depression, discrete groups of birds must be linked with nearby groups (i.e. recruiting and exporting birds) forming a meta-population. Conservation of capercaillie requires consideration at this meta-population scale as well as at the scale of individual sites.

### **Sensitivity of capercaillie to disturbance**

Capercaillie is listed in Schedule 1 Part 1 of the Wildlife and Countryside Act 1981 and Annex 1 of the EU Birds Directive. It is a criminal offence to intentionally or recklessly disturb leking or breeding capercaillie. According to Article 6.2 of the EU Habitats Directive: 'Member States shall take appropriate steps to avoid, in the special areas of conservation, the deterioration of natural habitats and the habitats of species as well as disturbance of the species for which the areas have been designated, ***in so far as such disturbance could be significant in relation to the objectives of this Directive.***' Article 7 of the Habitats Directive states that Article 6.2 applies to the Birds Directive.

There is a growing body of evidence indicating capercaillie and other grouse species are adversely affected by disturbance resulting from human recreational activities. Our knowledge on the impacts of recreational disturbance has increased during the last few years due to the increasing body of research undertaken, although it is difficult to measure scientifically. Human disturbance and disturbance by dogs can affect capercaillie by reducing the availability of otherwise suitable habitat (including habitat used for roosting, feeding, nesting and brood rearing), displacing the birds from leks, disrupting behaviour patterns, increasing the risk of predation, separating chicks from hens and the direct killing of chicks and adult birds. These effects can occur separately or additively. Capercaillie are sensitive to disturbance at all life stages but especially so when attending leks, incubating eggs (late April to mid June) or rearing broods (late May - late August but critically during June and July when the chicks are small and dependent on the hen for warmth), which coincides with

when people are mostly likely to be using the woods. Reported responses to disturbance include a decline in local capercaillie numbers (Brenot *et al.* 1996 cited in Thiel *et al.* 2007) and abandonment of lek sites (Labigand & Munier 1989 cited in Thiel *et al.* 2007).

Capercaillie have been shown to avoid habitat close to tracks, which may reduce overall carrying capacity in forests with a high density of tracks. Fewer droppings are found in areas of woodland close to heavily used tracks. A study in Abernethy Forest estimated that 21-41% of suitable woodland habitat at Abernethy could be lost due to avoidance of tracks by capercaillie (Summers *et al.*, 2007). The studies looking at the distribution of capercaillie droppings on transects in Boat of Garten woods found that droppings were sparser within 700 m of a much-disturbed zone near the village (significantly so up to 250 m), and within 250 m of tracks (significantly so up to 120 m). Results were consistent with those from other studies at Anagach Woods and Glenmore Forest. Distances between tracks of > 500 m are required to provide capercaillie with relatively peaceful havens between tracks. Cocks' droppings were about twice as common as hens, suggesting a sex ratio skew (consistent with evidence that suggests hens are more susceptible to disturbance than cocks). In the most recent Strathspey study at Glenmore, findings indicated that capercaillie avoid areas around busy entry points (Moss *et al.*, 2010).

A study in Central Europe showed that flushing distance was greater in the presence of regular disturbance events (Thiel *et al.*, 2007). Flushing distances are greater in open forests where the availability of cover is low (Thiel *et al.*, 2007). Other European studies show that raised stress hormone metabolite levels were noted in capercaillie regularly disturbed by off-piste skiers, (Thiel *et al.*, 2005, 2008). Repeated flushing, such as could occur due to increased disturbance caused by new residents, increases the energy burden. This impact is likely to be of greatest significance in very cold weather, when birds are already close to their physiological limit (Zeitler, 2000). Disturbed capercaillie are also likely to be more visible and will need to spend more time feeding to counteract the increased energy losses, possibly increasing exposure to predators. It has been recommended that the establishment of regulations requiring hikers to stay on trails and closing trails where inter-trail distances fall below 100m (Thiel *et al.*, 2007). An example of such management in the Bayerischer Wald National Park, Bavaria, resulted in capercaillie returning to the surrounding woodland (Scherzinger 2003, cited in Summers *et al.* 2007).

Habitat structure has been shown to modify the alert distance of a number of bird species, with increasing bird tolerance associated with greater availability of escape cover (Fernandez-Juricic *et al.* 2001). In the specific case of capercaillie, Thiel *et al.* (2007) recommended planting or preserving evergreen conifer trees along track verges thus reducing the degree of visibility between capercaillie and recreationists. This could increase the habitat available to capercaillie in forests with predictable recreation activities.

Grouse experts questioned as part of the Delphi study (Marshall, 2005) suggested that dogs off leads during the breeding season were the most significant issue for capercaillie in Scotland. Dogs off-lead can have a greater impact by flushing birds further away from paths, so further limiting the amount of available habitat; can separate broods from the hen which could result in chicks becoming cold and wet; and dogs can catch and kill both chicks and adult birds. Due to the large size, especially of males, chicks require a large amount of energy to grow to adult size during a short period. Due to poor nutritional qualities of their food, they are more susceptible to the effects of disturbance than smaller birds and have a

higher mortality rate over a longer period. Chicks are more robust, and therefore more likely to survive, if a hen has good energy reserves during egg development.

The main period of sensitivity for breeding capercaillie in relation to dogs has been defined by the Caper BAP Group as between 1<sup>st</sup> April and 15<sup>th</sup> August. This is currently being reconsidered following a recommendation from the Caper BAP Group to extend the end date. CNPA, as the Access Authority, has sought further advice from the Cairngorms Local Outdoor Access Forum, who have recommended that the dates are not altered until further work on a CNPA led Strathspey-wide capercaillie framework considering habitat management, recreation and development management is complete.

In summary, capercaillie are very vulnerable to disturbance. They are ground nesting and are therefore most vulnerable at the early part of their lifecycle as eggs or chicks. At this stage, they can be directly killed by dogs, or killed by exposure or predators such as crows or foxes when the hen is flushed from the nest or brood. Capercaillie are also very vulnerable to disturbance on the lek. While some cock birds become over-aggressive, the vast majority of males are very easily driven away. Although capercaillie are vulnerable to disturbance at all times of year, they are especially so in spring and summer. The Capercaillie BAP (Biodiversity Action Plan) Group highlight the period between 1 April – 15 August as the most critical period. It is concluded that capercaillie are sensitive to disturbance by people and dogs, and that dogs off leads present the greatest risk. Off-path recreational use is likely to be more disturbing than on-path use because it is less predictable and birds are less likely to habituate to it. Evidence from Boat of Garten woods shows that use by capercaillie of the parts of the woods within 125 m of paths and tracks is reduced and that this disturbance has a significant impact on their behaviour.

### **Loss of capercaillie habitat**

It is reasonable to assume that the existing level of disturbance means that apparently suitable habitat for capercaillie is effectively unavailable to them. Research on habitat use through analysis of droppings suggests that there is an avoidance of certain areas. This is probably attributable to the disturbance experienced from existing sources and cumulatively creates a larger area of unavailable habitat. Capercaillie need large areas of habitat. Chicks require high quality protein food to grow rapidly, which can be distributed patchily over a wide area. Chicks are born precocial and move constantly over a big area to find food and avoid predation (Wegge *et al*, 2007).

As highlighted above, capercaillie have declined significantly in recent times. Studies have suggested that the national decline was driven by low productivity (Moss *et al.*, 2001). A programme of targeted habitat management in capercaillie core areas seems to have halted the population decline in Strathspey. Among the factors that may limit capercaillie populations in Scotland are habitat fragmentation and limited habitat availability. In order to address this conservation groups including the Caper BAP group are seeking to ensure opportunities to increase the amount of habitat that is available are developed to ensure that connectivity is increased. This is also a key priority for the CNPA as set out in the National Park Plan and in the new Cairngorms Nature Action Plan. Additional effort needs to focus on increasing productivity and addressing issues that may impact upon it i.e. reducing disturbance.

As already highlighted, Strathspey is the most important area of woodland in the UK for capercaillie, holding c.75% of the population (Poole, 2010). The species requires large, connected areas of woodland for the meta-populations to function effectively. Therefore, the woodlands of Strathspey need to be considered as one ecological unit for the purposes of capercaillie management. Any Appropriate Assessment needs to be as certain beyond reasonable scientific doubt that direct habitat loss and/or reduction in available habitat through habitat avoidance by capercaillie due to disturbance do not result from any development.

## Appendix 4

### Recreational use of woodlands around Carrbridge

#### Existing levels and patterns of recreational use

At the time of CNPA's first Core Path Plan consultation, residents highlighted which paths they used around Carr-Bridge. The resulting map is shown below and is also available at <http://cairngorms.co.uk/park-authority/about-us/publications/?publicationID=108>. It gives a good indication of the recreational pattern of use around the village. The solid lines indicate routes used at least once by at least one consultee. The dashed lines indicate routes that consultees would like to see developed. This consultation did not collect evidence of the relative popularity of different routes.

Based on the Core Paths consultation, general knowledge and casework, CNPA's Outdoor Access Officers supplemented by other CNPA and SNH staff, have advised that people from Carr-Bridge use various woods around the village for walking, dog walking, cycling and horse riding, as described below.

Walking and dog walking. It is thought that the most popular routes are those in the promoted path network around the village i.e., the riverside path, paths in Ellan Woods, and in Carr Plantation. Carr Plantation has a network of informal paths close to the existing housing and a strong network of forest tracks. Ellan Wood has a number of very good paths and tracks. For simplicity, the adjacent Glencarnoch Wood (shown on the Carr-bridge paths leaflet) is considered together with Ellan Wood in the discussion below.

Cycling. In general, the area is thought to have fairly regular use by mountain bikers, but at low numbers. There is an active mountain biking group in Carr-Bridge which has rides of between 1 – 15 people who go out on a weekday evening and at the weekend. They visit a wide variety of sites, not just the area around the village. They are likely to use the existing tracks most of the time. The community has expressed a strong desire to create an off road cycle route to Aviemore, part of which would go through the woods alongside the A95 and the B9153. A new formal bike skills park has just been opened in the village, so this provides a facility for off-road cyclists. A former Sustrans National Cycle Network off-road alternative route between Boat of Garten and the Carr-Bridge passes around the edge of Deishar Wood, and through Carr Plantation. This route is no longer promoted so is likely to receive less cycle use than previously, although locals and regular visitors will know about it. Prior to forest operations a few years ago, there used to be some informal, user-developed, single track bike trails accessed from this route in the area of woodland NW of Docharn Craig. An off-road alternative to National Cycle Network (NCN) 7 is still promoted between Carr-Bridge and the Slochd, and this follows tracks through Kinveachy Forest SPA over the Sluggan Bridge and then beside Inverlaidnan Hill.

Horse riding. There is a pony trekking centre in Carr-Bridge. They use Carr Plantation as one of their regular routes. They use other routes around the village too, for example, at Ellan Wood.

Boys Brigade. The field part of the northern site proposed for housing is frequently used by the Boys' Brigade during the summer. They are thought to use Carr Plantation for activities.



Other promoted routes and activities. There is a Right of Way from Carr Plantation to Docharn which is promoted on the Walk Highland website. The surface is muddy, and it is thought to be only lightly used. There is also a Geocache just outside Carr Plantation at approximately NH 910 218. There is a route along the Wade's Road from Sluggan Bridge to Carr-Bridge which is promoted in a book of local walks.

Off-path use. We have no knowledge of the amount of off-path recreational use by people around Carr-bridge, but it is reasonable to assume that it follows a similar general pattern to Boat of Garten, where we do have information. There, the evidence indicates that off-path use is infrequent, and is mostly close to the village, for the purposes of taking a short cut, wildlife watching, cross-country skiing, and picking mushrooms and berries.

Existing recreational use of woodlands used by capercaillie.

- South of the village, **Deishar Wood** has a number of forest tracks, and the muddy Right of Way from Carr Plantation to Docharn, all of which are thought to receive occasional use, including some mountain biking on the tracks, but at a low level. The former Sustrans NCN off-road route is popular, but peripheral to the parts of Deishar Wood most used by capercaillie, as are the former informal, user-developed, single track bike trails accessed from this route in the area of woodland NW of Docharn Craig.
- **Baddengorm Woods** and the adjacent **Tom a'Thornaidh Mor**, are thought to be relatively unattractive for recreation and little used, as a number of old paths have now fallen into disuse. Existing levels of recreational disturbance to capercaillie are therefore likely to be low in both these woods.
- In terms of **Kinveachy Forest SPA**, the most popular routes are thought to be the NCN 7 over the Sluggan Bridge towards the Slochd (sometimes combined with the return path from Sluggan to Dalrachney Beag which is outwith the SPA). Capercaillie are present in the woodland at Inverlaidnan which is adjacent to the Sustrans route, but this wood is separated from the route by a deer fence, and is up a steep slope. It is therefore unlikely that people or dogs stray from the Sustrans route and disturb capercaillie. The area around Dalnahaitnach is also used by walkers. From there, most people go up the hill on the hill track, i.e., away from the woodland, which won't disturb capercaillie. The track up the Dulnain to the Burma Road via Eil is a popular longer mountain bike circuit. This is not thought to be an issue for capercaillie because much of the track is in open ground rather than Scots pine woodland, and in the short sections where there is pine woodland, there are few capercaillie. Elsewhere in the SPA, it is thought that levels of use are low and focussed on existing forest or moorland tracks, most of which are not in areas well used by capercaillie.
- **Kinveachy Face**, outside the SPA, has an extensive network of forest tracks between Carr-Bridge and Aviemore, especially towards the Aviemore end, and these are promoted for mountain bikers by Trailmaps (Map no 4, Carr-Bridge). There are also some informal, user-developed, single track bike trails at the Aviemore end of

these woods. The forest tracks and informal single track trails are normally accessed from High Burnside in Aviemore, although some people will use the forest tracks parallel to

- the A9 as part of the Burma Road circuit as described above. There is some anecdotal evidence that use of these tracks, although at a low level, is increasing. The users are likely to be residents of, and visitors to, a number of local settlements, not just Carr-Bridge. Capercaillie use the face frequently, especially the upper parts close to the SPA boundary which are above the majority of the track network. At present there is no evidence that the face is used by capercaillie for lekking and brood rearing, although this could change in future because recent forest management is improving the habitat quality for broods.
- In **Beananach Wood**, General Wade's Military Road is used by cyclists and walkers, sometimes as part of a ~3mile circuit including Dalnahaltach, but the larger area of this wood NE of the Military Road is thought to have little if any recreational use.
- **Crannaich Wood** is separated from the village by the railway and A9, and is thought to be only occasionally used for recreation.

In conclusion, it is thought that most recreational use around Carr-Bridge does not result in disturbance to capercaillie because it is remote from where the birds live. Within the woods used by capercaillie, levels of recreational use are thought to be relatively low, and in many cases the paths and tracks used by people are peripheral to the areas used by capercaillie. The types of recreational use that are most disturbing to capercaillie, i.e. off-lead dog walking and off-path use by people, are thought to be focussed close to the village in the areas not, or rarely, used by capercaillie. Whilst there is likely to be some recreational disturbance to capercaillie in the woods around Carr-Bridge, it is therefore thought to be at a relatively low level, significantly lower than locations elsewhere in Strathspey such as Boat of Garten Woods, or Anagach Woods, for example.

### **Predicted changes to levels and patterns of recreational use**

It is expected that the majority of 'everyday' recreational use, e.g. short walks and dog walking, by people living in the proposed housing development will take place on the promoted path network around the village, particularly the paths within the adjacent Carr Plantation. It is also likely that new informal paths will develop in the Plantation around the development sites. The Plantation is large enough to absorb a high number of people, and it offers a number of routes, i.e., it caters for short and medium length walks. Being close to the village, sheltered, and with no stock present, it is likely to be attractive to dog walkers. If this Plantation gets busier, it is possible that some existing recreational users, perhaps including the pony trekkers, may be displaced to other local routes e.g. Ellen Wood. As Carr Plantation and Ellen Wood are rarely used by capercaillie, this change will not cause significant disturbance to capercaillie.

For longer / 'weekend' walks, and off-road cycling, it is likely that people living in the proposed housing development will mainly use the routes that are used by existing residents, in particular the NCN 7 over the Sluggan bridge towards the Slochd or back to Dalrachney Beag, the former NCN 7 off-road route towards Boat of Garten, the forest

tracks on Kinveachy Face, and the paths and tracks around Dalnahaitnach and General Wade's Military Road from Sluggan to Kinveachy. It is also possible that informal, user-developed, single track bike trails might develop / redevelop in the area of woodland NW of Docharn Craig, accessed from the former NCN 7 route at around NH 915204. The circular route around Docharn Craig is thought to be used as a circuit infrequently at present, probably because the 'link' path between the tracks that comprise the former NCN 7 off-road route is muddy. Given the proximity of this circuit to the development site, it is likely to experience a small increase in use by those who want a longer, e.g. weekend, walk / dog walk and are prepared to tolerate the muddy underfoot conditions. Similarly, whilst the forest tracks in Deishar Wood are thought to be only rarely used at present for walking, or more likely cycling, given their proximity to the proposed development site this could increase. These woods are home to a breeding population of capercaillie.

Summer use of the development site by the Boys Brigade will be displaced if the proposed housing goes ahead, and it is assumed that they would move to another roadside location, close to one of the villages, offering similar facilities to their current location. It is concluded that they do not cause disturbance to capercaillie, and are not likely to do so once moved.

Given the existing low / minimal levels of recreational use of Baddengorm, Crannaich, and Tom a'Thornaidh Mor Woods, and their distance from the proposed development site, it is unlikely that levels of recreational use would increase here as a consequence of the development.

In conclusion, it is thought that the main recreational effects of the proposed development would be:

1. An increase of use of all the main promoted paths around Carr-Bridge by a broadly similar proportion as the increase in population, i.e., 35%, with some areas experiencing a higher increase than others, depending on their attractiveness, proximity to the development site, etc. The paths in Carr Plantation and Ellan Wood are likely to have the greatest increase, and are likely to be the most popular routes for 'everyday' short and medium length dog walking from the proposed development site.
2. An increase in the number of informal paths on the eastern side of Carr Plantation, close to the proposed development.
3. An increase in off-path recreational use close to the village.
4. An increase in use of paths that are already used at Dalnahaitnach, General Wade's Military Road from Sluggan to Kinveachy, Sluggan, and from Sluggan back to Dalrachney Beag for longer walks and dog walks, e.g. at weekends.
5. An increase in use of the Docharn circular route, and possibly some of the forest tracks in Deishar Woods, for longer walks and dog walks, e.g. at weekends, although the popularity of the circular route will be limited by muddy surface conditions.
6. Possible displacement of pony trekkers away from Carr Plantation to other routes close to the village, e.g. in Ellan Wood.
7. An increase in cyclists on paths and tracks already used for cycling at the former off road cycle route around Deishar Wood, NCN 7 from Sluggan to the Slochd, General Wade's Military Road, and the forest tracks on Kinveachy face. Also a small increase in cyclists on the infrequently used forest tracks in Deishar Wood.

8. The potential development / redevelopment of informal, user-developed, single track bike trails in the part of the wood W and NW of Docharn Craig.
9. Displacement of Boys' Brigade activities.

Predicted changes 1, 2, 3, 4, 6, 8 and 9 will not result in significant disturbance to capercaillie because the birds rarely use these areas. Predicted changes 5 and 7 require further consideration.

Increase in cycling on paths and tracks in woods already used for cycling at the former off road cycle route around Deishar Wood, NCN 7 from Sluggan to the Slochd, General Wade's Military Road from Sluggan to Kinveachy, and the forest tracks in the Kinveachy face area. Also a small increase in cyclists on the infrequently used forest tracks in Deishar Wood.

As outlined above, increased cycle use of NCN 7 from Sluggan to the Slochd is not likely to disturb capercaillie because there is a fence and steep slope between the route and woods used by the birds. Increased use of the former NCN 7 off-road route is also unlikely to cause disturbance because it is peripheral to the large area of Deishar Woods used by capercaillie.

General Wade's Military Road from Sluggan to Kinveachy, and the forest tracks in the Kinveachy face area, are likely to be restricted in their appeal to more serious off-road cyclists because of steep gradients, and an unbridged river crossing on the former route. These routes pass through woodlands used by capercaillie, although in both cases the routes are towards the edge of woodlands that have larger track-free areas beyond. Numbers of cyclists in these areas are thought to be low but increasing, with most access from Aviemore. This increase is likely to reflect the general popularity of cycling and mountain biking. The routes can be used as parts of longer circuits accessible to residents of, and visitors to, Aviemore, Boat of Garten, Carr-Bridge, and beyond. The combined population of the three settlements named above in 2001 was 4030, so the predicted 248 occupants of this proposed housing development in Carr-Bridge would result in a 6% increase on this figure.

The forest tracks in Deishar Woods are thought to be of limited appeal and only rarely used at present for cycling, but given their proximity to the proposed development site there could be a small increase in levels of cycle use.

The exact effects of cycling on capercaillie are unclear, but experts have advised that cyclists are less disturbing to capercaillie than walkers, especially walkers with loose dogs. In a workshop of people with knowledge and experience of managing sites with capercaillie, 30% of the attendees thought that capercaillie would fly away from cyclists at 75m or more. The others thought that capercaillie would fly at shorter distances – less than 25m, or 25 – 75m. For comparison, 70% thought that capercaillie would fly from a walker with a loose dog at 75m or more (Marshall, 2005, p7). Thus cyclists are thought to be less disturbing than other forms of recreation. In addition, disturbance by cyclists is likely to be short-lived as they travel at speed, and is not likely to be fatal in the same way as a dog eating eggs or chicks, so the consequences of disturbance would be less serious for the population. Overall, given the low levels of existing cycle use in these areas, the small scale of any likely increase, the large

areas of these woodlands away from track networks that will remain undisturbed, the fact that cyclists are thought to be less disturbing than other forms of recreation, and since even if occasionally disturbed the capercaillie population would still survive and breed, we conclude this effect of the proposed development will not result in significant disturbance, the overall meta-population will not be affected, and there would be no adverse effect on the integrity of the SPAs.

Increase in walking and dog walking on the Docharn circular route, and possibly some of the forest tracks in Deishar Woods

Around 2/3rd of the circular route comprises the popular former NCN 7 off-road route towards Boat of Garten, which is largely peripheral to the area in Deishar Woods used by capercaillie. The remaining 1/3rd of the circuit is muddy and only lightly used at present, and the Deishar woods forest tracks are also only lightly used, but both are within the parts of the woods used by capercaillie (Poole, pers. comm.). Any increase in use of the muddy path section of the circular route or the forest tracks is predicted to be small as a result of the widespread availability of more attractive and promoted routes elsewhere. There is a lek 500m away from the nearest forest track, and fairly inaccessible to people due to the awkward intervening terrain. The inter-track distances between the paths (including the potential informal, user-developed, single track bike trails noted on p14) and tracks in these woods vary between 750m and 2km. Moss *et al.* (in prep.) found that capercaillie droppings were less frequent within 70-235 m of tracks in 3 Strathspey woods. If we assume the larger 235m disturbance distance from tracks this leaves a considerable area of undisturbed habitat available to capercaillie. It is unlikely that any increase in use of these routes would be associated with off-path use by people because it is a long walk from the village and there are no known reasons to attract people to go off the paths here. The main risk that could increase disturbance to capercaillie would arise if the small predicted increase in numbers of people using the muddy path section of the circular route, or the forest tracks in Deishar woods, were accompanied by off-lead dogs that ranged away from the path. Given the scale of the undisturbed area between the paths/tracks, and the fact that only small increases in use are predicted, the likelihood of significant disturbance to capercaillie arising from dogs ranging away from paths appears small, but cannot be ruled out. It could be tackled by mitigation, as described in the Appropriate Assessment.

## Appendix 5

### Draft HRA report consultation responses

A number of points were raised by both SNH and the RSPB. Several were of a relatively minor nature requiring only addition explanation or correcting drafting errors. These are not referred to here but have been corrected in full. The table below therefore shows the substantive issues raised by these organisation and the actions we have undertaken as a consequence. Their comments have been paraphrased for the purpose of brevity.

The HRA has also been reviewed in light of more recent survey information supplied by the applicant. This was received in April 2014 and included survey data from September 2013 this post dates the comments from the consultees. A number of changes have been made as a result of the review; for example a change to the outcome of screening for otter.

Summarised comment	CNPA response	Action taken
<b>SNH</b>		
Use of meta population in Table 3 for species other than capercaillie is not accurate	We agree that other species such as crossbill, osprey etc have a different population dynamic and do not conform to classic meta-population theory.	This reference has been removed for Crossbill, osprey, Merlin golden eagle and dotterel
SNH concluded LSE rather than no effect for disturbance at Kinveachy SPA	We have reassessed this impact using recent data on visit numbers likely to be generated by the development and we now agree with this assessment.	The outcome of screening has been changed to LSE and this has been included within the AA
Rationale for no LSE on FWPM could be strengthened	This is no longer relevant because the outcome has now been changed to an LSE to allow for possible future changes in regulated phosphate levels.	LSE is now the outcome
In combination test states there were no likely significant effects but LSE were identified	We suspect this is a miss-reading of the text because it actually states that there are no <i>insignificant</i> effects. However this is not a term we have used elsewhere so this may lead to confusion.	Text has been modified to make it clear that no effects have been found that are <u>not</u> significant.
There is uncertainty that the habitat of Carr woods is never used by capercaillie but it is poor quality and therefore rarely used.	We agree with this comment	Text has been changed accordingly.
SNH question the need for criterion I because enough information about access and bird use is already known.	We feel that this is in part valid but that the criterion should be retained to emphasise that the mitigation must be based upon the known knowledge.	Criterion retained but wording modified to be clearer on what is required.
Conclusion on integrity test must include the requirement for the mitigation to be	We agree with this comments	Wording has been changed in accordance

implemented.		with comment
Appendix 3 on screening thresholds for effects related to the Local Development Plan.	We agree that this is not relevant in the HRA for a project.	Appendix has been removed.
<b>RSPB</b>		
Number of walkers in specific is low but even a small increased in users here could be significant	We have accepted in other work that there may be a disproportionate level of disturbance arising from small increases on paths where users are few. We agree with this comment.	Text and assessment has been changed with the HRA report
It is appropriate to indicate the importance of the Carrbridge woods to capercaillie by reference to the percentage of national population within this area	We recognise the importance of the local woods for capercaillie and this is reflected in the likely significant effect attributed to the SPA screening. We do not have the proportion of birds within a set radius and this figure could be calculated in several ways. This would take significant staff time and we consider that that it would not alone change the assessment.	No change is considered necessary.
The use of the term 'stepping stone' to explain the value of the woodlands is misleading as they have a wider function and value to capercaillie meta-population.	We agree with this observation and acknowledge that these areas may hold resident populations in their own right and not simply act as short term refuges.	Text has been changed with the HRA report
Within Criterion 3 baseline knowledge of capercaillie use will be needed.	We agree that this is important knowledge but the wording of the criterion does not imply otherwise.	No change is considered necessary.
Conclusion on integrity test should be caveated with reference to implementation of mitigation. And demonstrated by regular review.	We agree that there must be a clear requirement for the mitigation to be included but that regular review should not be offered as mitigation as this may imply less than the required degree of certainty which is not the case. Review will happen in terms of assessing use of the area by people and birds through the Capercaillie Framework however this is outwith the scope of the HRA for the development.	Mitigation has been included as a requirement within the conclusion as a precondition.