

**HABITATS REGULATIONS APPRAISAL PROFORMA: STRATHSPEY LAND
MANAGEMENT PLAN (FOR GLENMORE, UPPER ROTHIE MURCHUS AND INSHRIACH)
APPRAISAL IN RELATION TO REGULATION 48 OF THE CONSERVATION (NATURAL
HABITATS, &C.) REGULATIONS 1994 AS AMENDED¹ (HABITATS REGULATIONS
APPRAISAL)**

Casework Management System Ref.

NATURA SITE DETAILS

Name of Natura site(s) potentially affected:

8365 River Spey SAC
8217 Cairngorms SAC
8475 Cairngorms SPA

Name of component SSSI if relevant:

1361 River Feshie
1364 River Spey – Insh Marshes
288 Cairngorms
1241 North Rothiemurchus Pinewood
1665 Glenmore Forest
44 Allt Mor

Natura qualifying interest(s) & whether priority/non-priority:

SAC River Spey 8365

- Atlantic Salmon Unfavourable Recovering (4/9/11)
- Freshwater Pearl Mussel Unfavourable Declining (30/9/14)
- Otter Favourable Maintained (18/9/11)
- Sea lamprey Favourable maintained (7/11/2011)

SAC Cairngorms 8217

- Blanket Bog Unfavourable no Change (3/4/07)
- Bog Woodland Favourable Maintained (5/9/02)
- Caledonian Forest Unfavourable Recovering (5/10/15)
- Dry Heaths Unfavourable No Change (3/4/07)
- Green Shield-Moss Favourable Maintained (2/5/06)
- Juniper on heaths or Calcareous Grassland Favourable Maintained (3/4/07)
- Otter Unfavourable Declining (22/9/11)
- Wet Heathland with cross-leaved Heath Unfavourable No Change (8/9/15)
- Acid peat-stained lakes and ponds Favourable maintained (9/9/2014)
- Acidic scree Favourable maintained (8 /9/2015)
- Alpine and sub-alpine heaths Unfavourable no change (8/9/2015)
- Clear-water lakes or lochs with aquatic vegetation and poor to moderate nutrient levels Favourable maintained (23/6/2010)
- Dry grasslands and scrublands on chalk or limestone Unfavourable no change (3/4/2007)
- Hard-water springs depositing lime Favourable maintained (3/4/2007)
- High-altitude plant communities associated with areas of water seepage (25/8/2015)

¹ Or, where relevant, under regulation 61 of The Conservation of Habitats and Species Regulations 2010 as amended, or regulation 25 of The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 as amended.

- Montane acid grasslands Unfavourable recovering (14/7/2006)
- Mountain willow scrub Unfavourable no change (3/4/2007)
- Plants in crevices in acid rocks Favourable maintained (3/4/2007)
- Plants in crevices in base-rich rocks Unfavourable no change (3/4/2007)
- Species-rich grassland with mat-grass in upland areas Unfavourable no change (3/4/2007)
- Tall herb communities Favourable maintained (26/9/2013)
- Very wet mires often identified by an unstable 'quaking' surface Favourable maintained (20/8/2015)

SPA Cairngorms 8475

- Capercaillie Favourable Maintained (25/4/11)
- Golden Eagle Favourable Maintained (31/7/09)
- Merlin Not Assessed
- Dotterel, breeding Unfavourable declining (1/7/2011)
- Osprey, breeding Favourable maintained (1/6/2006)
- Peregrine, breeding Favourable maintained (30/6/2002)
- Scottish crossbill, breeding Favourable maintained (14/3/2012)

Conservation objectives for qualifying interests:

For designated habitats

To avoid deterioration of the qualifying habitats thus ensuring that the integrity of the site is maintained and the site makes an appropriate contribution to achieving favourable conservation status for the qualifying features.

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

- Extent of the habitats on site
- Distribution of the habitats within site
- Structure and function of the habitats
- Processes supporting the habitats
- Distribution of typical species of the habitats
- Viability of typical species as components of the habitats
- No significant disturbance of typical species of the habitats

For designated species

To avoid deterioration of the habitats of the qualifying species 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 the qualifying feature.

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

The overarching objectives for the LMP are to work towards the achievement of the Natura objectives.

STAGE 1: WHAT IS THE PLAN OR PROJECT?

Proposal title:

Strathspey Land Management Plan 2021 - 2031

Name of consultee:

Forestry & Land Scotland; Colin Leslie

Name of competent authority:

Scottish Forestry

Details of proposal (including location, timing, methods):

Within the lifespan of this plan (2021-2031) the planned activities are:

- Felling
- Civil Engineering
- Restocking and associated ground preparation
- Deer Management
- Peatland Restoration

These projects are indicative and would be considered further when permissions are sought, for example as planning permission or felling licence. This HRA considers the overall concepts and direction of travel, and tests them for potential impacts on the designated sites.

Strathspey Land Management Plan 2021-2031 NH 9097 0600 (central point)

1. Continued removal of non-native conifers (NNC) from the wider forest area (approx. 670ha). The beneficial impact on Cairngorms SAC will be indirect by removing the seed sources close to the SAC by 2050. The SAC will continue to be monitored for non-native regeneration which will be subsequently removed. Felling operations do have the potential to disturb designated species but this will be covered in pre-operational planning surveys and mitigation.
2. Forest road construction in Inshriach and Glenmore. This would be mainly outside the designated sites. Extend the forest road by 1041m to facilitate felling proposals and allow removal of Dothistroma infected trees from the Caledonian Pinewood. Pre-operational surveys and mitigation will ensure designated species and habitats are protected.
3. Deer Management. FLS aims to facilitate natural regeneration of native species and protection of habitats, through reduction in grazing impacts. Surveys will inform the decisions on cull levels and FLS will continue to work with neighbours and DMG's to achieve our objectives.
4. Peatland Restoration – Following removal of non-native species from areas of deeper peat there will be opportunities to rewet and restore bog habitats. Peat hags will also be re-profiled and revegetated.
5. Thinning – FLS will continue to thin and introduce low impact silvicultural systems (LISS) in Scots Pine plantation woodlands to maximise quality of habitat, increase ground layer and diversify age classes.
6. Restocking – Following non-native removal FLS will apply a variety of techniques to restore the sites to native woodland habitat. These will include scarification where a seed source exists. Direct seeding. Transplantation of existing SP regeneration. Planting of broadleaves where no seed source is present.

STAGE 2: IS THE PLAN OR PROJECT DIRECTLY CONNECTED WITH OR NECESSARY TO SITE MANAGEMENT FOR NATURE CONSERVATION?

Yes. In order to protect designated features and improve the condition of these features the proposed work is necessary. Tree disease (Dothistroma) and non-native species have the potential to create significant negative effects if not addressed.

As it has not been assessed previously, and works to benefit one feature may impact on another, it is considered further below.

STAGE 3: IS THE PLAN OR PROJECT (EITHER ALONE OR IN COMBINATION WITH OTHER PLANS OR PROJECTS) LIKELY TO HAVE A SIGNIFICANT EFFECT ON THE SITE?

Effect on designated features

There would be no significant impact on the following habitats or species, as they are not present on land owned and managed by Forest and Land Scotland. These are:

Cairngorms SAC

- Acid peat-stained lakes and ponds
- Acidic scree
- Alpine and sub-alpine heaths
- Clear-water lakes or lochs with aquatic vegetation and poor to moderate nutrient levels
- Dry grasslands and scrublands on chalk or limestone
- Hard-water springs depositing lime
- High-altitude plant communities associated with areas of water seepage
- Montane acid grasslands
- Mountain willow scrub
- Plants in crevices in acid rocks
- Plants in crevices in base-rich rocks
- Species-rich grassland with mat-grass in upland areas
- Tall herb communities
- Very wet mires often identified by an unstable ‘quaking’ surface

River Spey SAC

- Sea lamprey

Cairngorms SPA

- Dotterel
- Peregrine

These species may fly over or occasionally hunt on this land, but they are not known to use it for breeding, roosting or regular hunting. For this reason, this management would not impact on them.

Yes - These proposals will have a significant impact of the designated sites (see stage 4 for details)

Mitigation or modifications required to avoid a likely significant effect & reasons for these:

| <i>Mitigation:</i> | <i>Reason</i> |
|--|--|
| <ul style="list-style-type: none"> • Timing of operations • Monitoring • Review | <ul style="list-style-type: none"> • To avoid direct impacts • To assess impacts of these proposals • This plan will be reviewed in 5 years’ time |

STAGE 4: UNDERTAKE AN APPROPRIATE ASSESSMENT OF THE IMPLICATIONS FOR THE SITE IN VIEW OF ITS CONSERVATION OBJECTIVES

River Spey SAC

- Atlantic Salmon- proposals within this plan will both directly and indirectly benefit Atlantic Salmon. Indirectly, the removal of dense non-natives from riparian areas will reduce intense shading and will be replaced by natural, scattered native woodland. This would benefit salmon by increasing productivity of these stretches of river improving feeding opportunities. It would also remove a source of pine needles, which can increase acidity of the water. Directly this proposal will help remove barriers to fish passage such as hanging/small culverts and concrete fords. This will allow fish easier passage to spawning grounds at the catchment heads. All work adjacent to watercourses strictly follows Forest and Water guidelines.

There are also proposals in preparation to naturalise previously man altered watercourses such as at Allt a Mharacaidh. Here the river will be restored to its natural channels reducing flow speed and compaction of the river beds and improving conditions for fish. This project would be assessed separately as it is worked up.

- Population of the species as a viable component of the site – There will be no negative change likely as a result of these proposals.
- Distribution of the species within site – Existing watercourses will be protected and enhanced.
- Distribution and extent of habitats supporting the species – as above
- Structure, function and supporting processes of habitats supporting the species – Riparian features will be improved and conditions within watercourses will be improved to benefit this species
- No significant disturbance of the species

Conclude no likely impact on integrity for Atlantic Salmon

- Freshwater Pearl Mussel – See above for proposed work which will benefit Salmonids thereby also benefitting Freshwater Pearl Mussels. In addition there will be an increased focus on pollution prevention by ensuring that any large scale events in the Loch Morlich area have fail safe pollution prevention in place. All work adjacent to watercourses strictly follows Forest and Water guidelines

- Population of the species as a viable component of the site – There will be no negative change likely as a result of these proposals.
- Distribution of the species within site – Existing watercourses will be protected and enhanced.
- Distribution and extent of habitats supporting the species – as above
- Structure, function and supporting processes of habitats supporting the species – Riparian features will be improved and conditions within watercourses will be improved to benefit this species
- No significant disturbance of the species – Location will not be advertised but will be used to ensure planning controls are in place to prevent any potential negative impacts.

Conclude no likely impact on integrity for Freshwater Pearl Mussel

- Otter (River Spey SAC and Cairngorms SAC) – See above for riparian improvements which will also benefit Otter. Pre-operational survey work will identify sites used by this species and will mitigate against any impacts before forest operations take place.

- Population of the species as a viable component of the site – There will be no negative change likely as a result of these proposals.
- Distribution of the species within site – Existing watercourses will be protected and enhanced, so there would be no negative impacts on the distribution of otter.
- Distribution and extent of habitats supporting the species – as above
- Structure, function and supporting processes of habitats supporting the species – Riparian features will be improved and conditions within watercourses will be improved to benefit this species
- No significant disturbance of the species – Holts and resting places will be protected and identified prior to any forest operations taking place.

Conclude no likely impact on integrity for Otter

Cairngorms SAC

- Blanket Bog - Existing bogs will be protected from direct damage (e.g. machinery) and indirect damage (e.g. drainage). Opportunities will be sought to increase blanket bog area by restoring and rewetting bogs and revegetating hags. Deer management and reduction in deer numbers will improve conditions on the bogs. All peatland areas will be surveyed and their potential for conversion back to bog will be estimated. No planting will take place on deep peat (>50cm), i.e., blanket bog. No negative impacts on blanket bog are anticipated from the work outlined in the Plan.

Conclude no likely impact on integrity for Blanket Bog

- Bog Woodland - Removal of non-natives from adjacent habitat will prevent the spread of invasive regeneration and tree diseases (e.g. Dothistroma). Areas at Allt a Mharacaidh have already had drain blocking operations but these will be extended into areas cleared of non-natives. Non-native regeneration will be removed from bog woodland areas. These works would considerably improve the condition of the bog woodland and no negative impacts are likely.

Conclude no likely impact on integrity for Bog Woodland

- Caledonian Forest - Removal of non-natives from adjacent habitat will prevent the spread of invasive regeneration and tree diseases (e.g. Dothistroma). Reduction in grazing pressure will allow natural regeneration of native species. In areas adjacent to Caledonian Forest, scarification will be a key tool allowing natural regeneration of seed from the existing native trees onto previously non-native conifer sites. Further opportunities will be taken to increase the proportion of under-represented species (e.g. Holly, Aspen etc) with the native woodlands by planting seed sources for future expansion. Monitoring and management of deer will ensure a sustainable population, which will not negatively impact these habitats, can exist.

Conclude no likely impact on integrity for Caledonian Forest

- Dry Heaths – Overgrazing by red deer is recognised as a key factor in the currently unfavourable condition of this habitat. This will be addressed by monitoring and subsequent reduction in grazing impacts and by working with neighbours and deer management groups to ensure deer populations are maintained at levels compatible with the designated habitats. Reindeer grazing will be subject to a separate agreed grazing plan. There may be some natural establishment of Caledonian forest habitat onto dry heath areas but this is in accordance with NatureScot's assessment of suitability for woodland expansion or creation on designated sites outlined in the Cairngorms Conservation Advice Package and the Cairngorms National Park Forest Strategy 2018 (annex2).

Conclude Potential for small loss of this habitat

- Green Shield-Moss – Existing deadwood sites with this species will be protected. General increase in deadwood quantities throughout the LMP area will give opportunities for population expansion. Behavioural messaging will be employed to prevent negative interaction between wild campers and deadwood.

Cairngorms SPA

Conclude no likely impact on integrity for Green Shield Moss

- Capercaillie - Population of the species as a viable component of the site – the Lodgepole pine and other non-native plantations are not known to be important for lekking capercaillie. They are also less used as brood habitat. The key Capercaillie habitats are existing native Scots Pine and Scots Pine plantation woodlands. Both those habitats will be maintained and expanded.
 - Distribution of the species within site. Key Capercaillie brood and lek sites have been

identified and will be protected and maintained so there should be minimal impact on existing distribution. The aim of management of the site, including potential disturbance from people, is to keep the key areas for capercaillie with low levels of recreational disturbance. This would prevent impacts on the distribution of capercaillie.

- Distribution and extent of habitats supporting the species. There may be short term loss of suboptimal habitats but because the Lodgepole pine/Sitka Spruce would be replaced by Scots pine which is a more appropriate tree species, the extent of habitat supporting Capercaillie would therefore increase. In addition, restoration of open bog areas will create suitable brood habitat. Thinning will increase the value of the Scots Pine plantation areas and the move to extensive LISS systems will prevent intrusive clearfells in future and diversify age class of Scots Pine. Maintaining and improving bog woodland will also benefit capercaillie as cotton-grass is an important food source, especially for hens in spring. Thus the existing distribution of capercaillie habitat would be protected. The extent of Scots pine forest habitat will increase over time.
- Structure, function and supporting processes of habitats supporting the species. In the long term, this work would benefit the function of the Scots pine supporting Capercaillie, because Lodgepole pine hosts Dothistroma which can also infect Scots pine. Dothistroma is propagated by Lodgepole, and can be fatal to both species. Removing the Lodgepole is likely to benefit the neighbouring Scots pine for this reason. In the same way Sitka Spruce can suppress ground vegetation and therefore vital food sources. If it isn't removed both LP and SS have the potential to spread throughout the site negatively impacting the high value Scots Pine habitat. The work in this plan aims to protect and improve the structure, function and supporting processes of the Scots pine forest which supports capercaillie.
- No significant disturbance of the species. There may be some disturbance of Capercaillie which chose to use the native plantation areas. However, neighbouring Scots pine woodlands are present, plus other habitats. The work would be carried out during winter, when Capercaillie are not breeding. The introduction of vulnerable habitats concept will allow FLS to work with stakeholders and visitors to reduce disturbance of Capercaillie in key areas at peak periods

Conclude no likely impact on integrity for Capercaillie

- Juniper on heaths or Calcareous Grassland – Overgrazing by red deer is recognised as a key factor in the currently unfavourable condition of this habitat. This will be addressed by monitoring and subsequent reduction in grazing impacts and by working with neighbours and deer management groups to ensure deer populations are maintained at levels compatible with the designated habitats. Juniper is protected during forest operations and reduced grazing pressure will lead to continued regeneration. Juniper will also expand onto higher ground as herbivore impacts are reduced.

Conclude no likely impact on integrity for Juniper on heaths or Calcareous Grassland.

- Wet Heathland with cross-leaved Heath – Overgrazing by red deer is recognised as a key factor in the currently unfavourable condition of this habitat. This will be addressed by monitoring and subsequent reduction in grazing impacts. None of the proposed forestry works will negatively impact on this habitat.

Conclude no likely impact on integrity for Wet Heathland with cross-leaved Heath.

- Golden Eagle - Pre-operational survey work will identify sites used by this species and will mitigate against any direct impacts. The creation of new natural treeline woodland areas will be low density woodlands and are likely to maintain or increase potential food sources. Golden eagle can nest in trees and some in the wider area already do, so the presence of trees can provide habitat for nesting. Hunting opportunities would not be affected by the proposed works as they can hunt in open woodland.

Conclude no likely impact on integrity for Golden Eagle.

• Merlin – Merlin are likely to hunt and nest on open moorland, and so are unlikely to be affected by operational forestry work. No planting is proposed for open moorland on FLS land apart from very small numbers as a seed source. Where natural regeneration might impact on merlin, the scale compared to the moorland is such that the forest expansion is extremely unlikely to have any measurable impact for the foreseeable future. The Cairngorms Conservation Advice Package allows for some small loss of merlin habitat where this occurs by natural regeneration from existing Caledonian Forest.

Conclude no likely impact on integrity for Merlin

Osprey – Osprey use existing woodland for breeding. All sites used by Osprey are identified and protected so there will be no direct disturbance from operations. Forest expansion will be beneficial for Osprey.

Conclude no likely impact on integrity for Osprey

Scottish Crossbill – Scots Pine habitat will be protected and enhanced through this plan and this will protect and expand the area of habitat available to this species. In addition operational disturbance will be avoided by timing restrictions.

Conclude no likely impact on integrity for Scottish Crossbill

STAGE 5: CAN IT BE ASCERTAINED THAT THE PROPOSAL WILL NOT ADVERSELY AFFECT THE INTEGRITY OF THE SITE?

The proposals will not adversely affect the integrity of any of the sites. Failure to carry out some of the proposals are likely to lead to negative impacts on the site with the proliferation of non-native trees, impacts of deer browsing and potential risks from tree disease.

Mitigation or modifications required to ensure adverse effects are avoided, & reasons for these.

| <i>Mitigation:</i> | <i>Reason:</i> |
|---|--|
| 1. Consultation with NatureScot over major projects | 1. This will ensure that any major projects are taken forward with full consultation and agreement. |
| 2. Pre-operational checks | 2. All operations will be subject to site surveys and other pre-operational checks to ensure species and habitats are monitored and protected. |
| 3. Timing Restrictions and buffer zones | 3. Any operations likely to impact protected species will be subject to timing restrictions and buffer zones to ensure they are protected. |
| 4. Monitoring | 4. Species and habitats will be subject to regular monitoring and plans will be reviewed at regular intervals. |
| 5. Licencing | 5. Licences will be sought where required |

ADVICE SOUGHT

This plan has been fully consulted on and completed in conjunction with NatureScot. In addition, advice has been sought from NatureScot area and specialist staff, FLS Ecologists (Species, Woodland and Open habitats), RSPB, BDS and local experts.

CONCLUSION/ADVICE IN RELATION TO PLAN OR PROJECT

Natura model response position:

Likely significant effect, but no impact on the integrity of any of the sites.

| | |
|---------------------|--|
| Appraised by | |
| Date | |
| Checked by | |
| Date | |