From: [redacted]
To: Tamara Lawton
Subject: FW: EB Draft Deer Mangement Plan
Date: 25 September 2020 17:34:38
Attachments: image001.gif
image002.gif
image003.gif
image004.gif
image005.gif
Eisg Brachaidh Estate DRAFT Deer Management Plan [redacted] comments.docx

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From: [redacted]@woodlandtrust.org.uk>
Sent: 25 September 2020 16:56
To: Sinclair Coghill (Sinclair.Coghill@nature.scot) <Sinclair.Coghill@nature.scot>
Cc: [redacted]@coigach-assynt.org>
Subject: EB Draft Deer Mangement Plan

Hello Sinclair
Here is the draft of the Eisg Brachaidh deer management plan that [redacted], [redacted] and I have been working on. If you have any comments it would be good to get them before close of play on Monday as we have to distribute to the DMG subgroup as promised.
Many thanks
Regards
[redacted]

[redacted] MICFor
Senior Outreach Adviser

Mobile: [redacted]
Email: [redacted]@woodlandtrust.org.uk

The Woodland Trust, South Inch Business Centre, Perth, Perthshire, PH2 8BW
01738 635 544
www.woodlandtrust.org.uk

Stand up for trees

Perhaps include a map of the estate? Most DMPs show the area from the outset.

Deer Management Plan for Eisg Brachaidh Estate, April 2019 – March 2024

Owner	Graffham Court Estates Ltd
Agent	[redacted], CKD Galbraith,17 Old Edinburgh Road, Inverness, IV2 3HF, Tel [redacted], email [redacted]@ckdgalbraith.co.uk
Stalker	[redacted] – Deer mgmt. Maintenance Cull TBC (possibly AF stalker) – Deer mgmt. Reduction Cull
Area	2,034 hectares
Management Aim	• Achieving and maintaining a low enough density for upland habitats to recover and for the woodland to regenerate freely. • Achieve a density of maximum 1-2 deer per 100 ha. Use of thermal imagery, trail cameras and fenceline checks to monitor population within the fence on an ongoing basis. • Ensure fenceline is maintained during the length of the deer plan and that any breaches are promptly dealt with. • Conduct annual herbivore impact assessments to ensure the population is in line with the site's objectives and in harmony with the existing cattle grazing.
Deer Management Proposals	The main deer species on site is red deer. Sika are also present, closely hefted to the woodlands. Occasionally roe are also seen but do not currently present an issue to the site, although this will be monitored It is proposed to deer fence the landward boundary of the Estate. Although deer are present all year round on EB, much higher numbers are observed during winter, if the fence was to be closed during summer, the following winter would see high numbers coming off the hills and going either side of the fence, onto either Inverpolly Estate or into Inverkirkaig township with a need for a compensatory cull off EB ground. For this reason it has been decided to close the EB fence during winter with most of the overwintering population inside the fence, allowing a count and a reduction cull to take place The reduction cull will be carried out over two seasons, to a level at which Woodland regeneration is able to establish successfully and enable the non-woodland habitats of the SSSI/SAC to move faster towards favourable condition. The boundary Deer Fence will allow the Deer population to be managed at a low sustainable level: An initial level of 1-2 deer per sq. Km will be aimed for. Thermal imagery (drone and on foot), will assist counting the deer population within the fence to help inform progress towards the desired density. After the first season, the habitat impact assessments will inform the cull level for successive seasons and pro-active deer management will be undertaken for the length of the project informed by the survey results.. Roe deer numbers may increase if red deer numbers are reduced

	significantly within any fenced areas in future and numbers will be assessed to inform possible management of the roe population. Roe impact on upland habitats is thought likely to be negligible. Monitoring of deer numbers/tracking/habitat etc will be carried out regularly via trail cameras , thermal imagery, herbivore impact assessments and tree regeneration surveys to assess the impact of management and the change in the habitat
Other herbivores	Approximately 30 cattle summer graze the Estate, mostly in and around the woodlands. An unknown number of sheep previously gained access to the Estate from the north over the bridge at Inverkirkaig. A grid in the public road now stops this trespass grazing by sheep.
Estate Management Activities.	• Deer management is let to [redacted] on an annual basis. The deer management measures provided for in this Deer Management Plan will not be compromised by any change to this arrangement. • Inverpolly Estate has a grazing tenancy over the majority of the Estate. • It is proposed to bring in additional professional resources to carry out the reduction cull if necessary.
Habitat	The whole of Eisg Brachaidh Estate is within Inverpolly SAC and SSSI. The relevant qualifying features of the SAC within Eisg Brachaidh estate are: blanket bog, wet heath, dry heaths, and western acidic oak woodland. The notified features of the SSSI present are blanket bog, upland assemblage and upland birch woodland.
Public Access	Walkers are welcome. Another popular form of access is by canoeists and kayakers on Loch Sionascaig and the several long distance canoe routes through the area. There is minimal impact on deer management activity. Discussion is ongoing with the relevant access groups to ensure access provision is well made and effective.
Deer management and habitat impacts	The 2015 herbivore impact assessment reported that deer impacts were still highest in Eisg Brachaidh where 33% of plots had Moderate and 2% High-Moderate impacts. Blanket bog grazing was higher than trampling, unusually so for this habitat, which is often trampled rather than grazed. At this point therefore it would appear that the fire which burned much of the Estate in April 2011 was still having an effect. Woodland regeneration has been heavily impacted, as evidenced in a range of woodland surveys carried out in the last few years. The Native Woodland Survey of Scotland and subsequent reports all report high levels of browsing impact in the woodlands away from the bisecting public road. Many areas of woodland on Eisg Brachaidh are fragmenting and dying off due to the grazing pressure. Deer numbers have been between 6 and 9 deer per 100ha for the last few years. Immigration has been significant on Eisg Brachaidh since a wildfire in 2011 burned most of the upland on the estate. The last helicopter count in February 2016 found 38 stags, 47 hinds and 13 calves with a density of 5 deer /$km^{2.}$ Upland habitats generally respond well at densities around 4 -6 deer per square km as experienced on neighbouring Inverpolly and Drumrunie Estates. However an important factor in the annual grazing regime is an overwinter migration of deer into Eisg Brachaidh from further north and west to take advantage of sheltered conditions and greater food availability. This sees numbers rise to 9-12 animals per sq. km and as a result the previous year's cohort of tree regeneration and shrub growth gets eaten off. Given the sparsity of tree

	regeneration after the winter grazing pulse this suggests the current deer management (roughly 20 stags and 20 hinds), even with the diminishing effects of the wildfire has only maintained the Status Quo. It is clear that these culls need to increase to reduce habitat impacts and allow recovery. After fencing,, a heavy reduction cull within the fenced enclosure will take place once closed over two seasons and will happen out with the female close season (no female culling between April – August). If the estate is unable to operate under the general licence due to the 'enclosed' status, then a 5(6) out of season authorisation will be applied. An 18(2) authorisation may be applied for if the deer cannot be culled utilising the out of season licence, this will be dependent on progress of the cull and approval by NatureScot. In mitigation of possible deer movement into Inverkirkaig, we have the support of Assynt Foundation who have agreed to up the Cull on adjacent land to the north if required, to reduce any potential impact on the Inverkirkaig Township. We have also started dialogue to Inver and Kirkaig Fishings and hope to be able to work with them to mitigate any negative impacts of this fence. It is proposed to set up a managed inbox to allow residents to report issues which in turn will allow timeous action to be taken when required.
Human Resources	Stalking Tenant – [redacted]. Plus another qualified reputable Stalking Contractor
Competency DSC1 and DSC 2	[redacted] Any additional Stalkers will submit relevant qualifications prior to working on the ground.
Larder/Marketing	[redacted] Any additional Stalker - details will be added when known.
Deer Feeding	No artificial feeding has or will take place on Eisg Brachaidh Estate.
Cull Targets	20 stags and 19 hinds in 2018/19. Monitoring of habitats and deer numbers will determine level of immigration and thereby culls in future years. Future cull targets will be agreed with NatureScot via the s.7 Control Agreement Steering Group meetings. Likely current cull levels for 2019/20 and 2020/21 are 30 stags and 30 hinds and should result in a population of 4-6 deer per 100 ha at that time, subject to immigration. Once the fence is closed and dependent upon how many deer are within the fenced enclosures the cull will be somewhere between 80 and 150.
Cull Targeting	Red and Sika will undergo major reduction to desired density as stated above. Roe will be monitored and maintained at a low background level ensuring that their presence does not impact site objectives.
Current Monitoring	Stalkers to keep larder records. Estate to collaborate with NatureScot in carrying out Habitat Impact Assessment (HIA) and woodland surveys and helicopter deer census. Thermal imagery on foot and possibly by drone will take place to monitor population within the fence.
Current Recording	Estate will maintain larder records and share these with NatureScot and the deer management group, as appropriate.

Access	Use of Argo will be minimised using planned routes as agreed with NatureScot as per consents and methods to minimise damage to site features.
Standards	All work will be undertaken in close compliance with Industry Best Practice Guidance. http://www.bestpracticeguides.org.uk/ and in accordance with the Code of Practice on Deer Management http://www.snh.gov.uk/land-and-sea/managing-wildlife/managing-deer/code-of-deer-management/

From:	Sinclair Coghill
To:	[redacted] ; [redacted]@coigach-assynt.org)
Cc:	Tamara Lawton
Subject:	Eisg Brachaidh Estate DRAFT Deer Management Plan [redacted] comments SC comments 28 September 2020 (A3311600)
Date:	28 September 2020 15:50:24
Attachments:	Eisg Brachaidh Estate DRAFT Deer Management Plan [redacted] comments SC comments 28 September 2020.docx

Hi [redacted] and [redacted]

Thank you for sending through the draft, please see attached with track changes and comments.

Kind regards

Sinclair

Sinclair Coghill has sent you a copy of "Eisg Brachaidh Estate DRAFT Deer Management Plan [redacted] comments SC comments 28 September 2020" (A3311600) v2.0 from Objective.

Perhaps include a map of the estate? Most DMPs show the area from the outset.

Deer Management Plan for Eisg Brachaidh Estate, April 2019 – March 2024

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From: [redacted]
To: Tamara Lawton
Subject: FW: Official Sensitive: 030902379 - Eisg Brachaidh Estate
Date: 13 October 2020 16:55:27
Attachments: image001.jpg
Request additional information to provide Screening Opinion.pdf

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Hi Tamara,

I think I sent you the wrong letter last week.

To keep you updated, we have engaged a consultant to update the bird and mammal surveys and another consultant to produce the Visual Analysis required.

Kind Regards,

[redacted]

From: [redacted]@forestry.gov.scot <[redacted]@forestry.gov scot> **On Behalf Of** highland.cons@forestry gov.scot
Sent: 17 September 2020 08:00
To: [redacted]@coigach-assynt org>
Subject: Official Sensitive: 030902379 - Eisg Brachaidh Estate

Dear [redacted]

Please find attached a letter regarding the Environmental Impact Assessment for ref. 030902379 - Eisg Brachaidh Estate.

Kind regards

[redacted]

[redacted] | Administrative Officer | Scottish Forestry

Highland and Islands Conservancy
Woodlands | Fodderty Way | Dingwall | IV15 9XB

Email: highland.cons@forestry.gov.scot

Website: forestry.gov.scot
Twitter: @scotforestry

Scottish Forestry is the Scottish Government agency responsible for forestry policy, support and regulation.

In light of the ongoing public health advice to reduce unnecessary social contact during the outbreak of Covid-19, we have activated our Business Continuity Plan. More information can be found on our website.

T

Scottish Forestry
Coilltearachd na h-Alba

Highland & Islands Conservancy
'Woodlands', Fodderty Way
Dingwall, Ross-Shire, IV15 9XB
Tel: 0300 067 6950
highland.cons@forestry.gov.scot
Conservator: John Risby

Via email: [redacted]@coigach-assynt.org

Our Reference – 030902379 - Eisg Brachaidh

17-Sep-2020

Dear [redacted]

The Forestry (Environmental Impact Assessment) (Scotland) Regulations 2017

I refer to your application for a Screening Opinion about whether the 100 hectares of afforestation at Eisg Brachaidh estate will require EIA consent.

As you may know we are required to give our Screening Opinion within 28 days of the date that we receive full details of your proposals, or from the date when we receive any further information about them that we may have requested from you.

I am writing to request additional information on the following points to enable us to provide a Screening Opinion:

Clear description of project to explain the rationale for the fence.

Impact on designated features, woodland and non-woodland.

Deer management plan considering impacts on neighbours, timing of culls and fence erection, numbers to be culled. Please complete your own joint agency fencing assessment to address each of the points in the guidance.

Management of livestock within the fenced area.

Landscape visual appraisal of the impact of the fence line on the NSA landscape

Impact on archaeological features

Access impacts on recreation such as walking, kayaking/canoeing, fishing

Updated bird & mammal survey information to complement the submitted surveys which are limited to the legacy woodland creation proposal areas and were carried out in 2011/12.

Comprehensive and clear maps showing the detailed fence alignment and expected regen and any planting with annotations as required.

A more comprehensive record of **Community, neighbour and local Deer Management Group** consultation detailing what issues were raised are and how they will be addressed.

Once we have this information and an updated **issues log** we will take a screening view from stakeholders.

Will you kindly return the additional information requested as soon as possible to the address above or by email to highland.cons@forestry.gov.scot

Yours sincerely

[redacted]
Woodland Officer

From: Tamara Lawton
To: [redacted]
Subject: RE: Official Sensitive: 030902379 - Eisg Brachaidh Estate
Date: 13 October 2020 17:51:00
Attachments: image001.jpg

Thanks [redacted], hope you are ok.

Good news on the consultants.

On the query over stock management – obviously there is an issue here over how much information can be shared due to the data protection act. I have checked with our land agent and our advice is that you share with SF what you do know is happening with stock on the ground now – (i e. the cattle) and that your project will not alter this nor will the current grazing of cattle affect the project outcomes.
For the future - what we can say is that any changes in stock management is an 'operation requiring consent' and therefore an application for SSSI consent to NatureScot would be required.

I'm here tomorrow than off for a week, back on Thursday week.

Cheers,
Tamara

From: [redacted]@coigach-assynt.org>
Sent: 13 October 2020 16:55
To: Tamara Lawton <Tamara.Lawton@nature.scot>
Subject: FW: Official Sensitive: 030902379 - Eisg Brachaidh Estate

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Kind regards

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From: Tamara Lawton
To: [redacted]@coigach-assynt.org)
Cc: Sinclair Coghill; [redacted]
Subject: Inverpolly HIA
Date: 16 November 2020 18:14:00
Attachments: 2015 Inverpolly HIA 2015 1st draft report.doc

Hi [redacted], I have attached the 2015 upland HIA for Inverpolly so you can get a feel for the kind of monitoring we have been doing for the Section 7. This is the first draft (I can't find the final – I suspect it is on a cd in the office but shouldn't be too far from the actual final version (unless Sinclair can find the final one?). It only samples a few of the upland habitats as proxies for the site as a whole – you may choose to monitor more habitats but I would suggest you wold want to do the blanket bog and dry heath as a minimum – maybe add in wet heath too? You could probably use the Section 7 HIA points as a starting point and add more.
The HIA we do is the full MacDonald et al methodology which the best practice is a simplified version of. You will still get useful results from the best practice monitoring but you may wish to have the extra data you get from the full survey.

The full version guidance can be found on the website but is tricky to find (it took me a good 10 minutes and I knew what I was looking for…)
Here is the link - https://www.nature.scot/guide-upland-habitats-surveying-land-management-impacts-volumes-1-and-2 it is quite long…

cheers, let me know if you want more.

Tamara

Tamara Lawton | Area Officer, South Highland

NatureScot | 17 Pulteney Street , Ullapool, Wester Ross IV262UP| 01463 701605

17 Sràid Pholtanaidh, Ulapul, Ros an Iar, IV26 2UP

nature.scot | @nature_scot | *Scotland's Nature Agency* | *Buidheann Nàdair na h-Alba*

Scottish Natural Heritage
Dualchas Nàdair na h-Alba
All of nature for all of Scotland
Nàdar air fad airson Alba air fad

COMMISSIONED REPORT

Commissioned Report No. - SNH use only

ASSESSMENT OF HERBIVORE IMPACTS AT THE INVERPOLLY SPECIAL AREA OF CONSERVATION AND SITE OF SPECIAL SCIENTIFIC INTEREST

For further information on this report please contact:

Name of SNH Project Manager - SNH use only
Scottish Natural Heritage
Great Glen House
INVERNESS
IV3 8NW
Telephone: Telephone No. - SNH use only
E-mail: firstname.lastname@snh.gov.uk - SNH use only

This report should be quoted as:

Maier, R.T. (2015). Assessment of herbivore impacts at the Inverpolly Special Area of Conservation and Site of Special Scientific Interest
Scottish Natural Heritage Commissioned Report No. - SNH use only

COMMISSIONED REPORT

Summary

ASSESSMENT OF HERBIVORE IMPACTS AT THE INVERPOLLY SPECIAL AREA OF CONSERVATION AND SITE OF SPECIAL SCIENTIFIC INTEREST

Commissioned Report No.: Report No. - SNH use only
Project no: iBids Ref - SNH use only
Contractor: [Insert contractor's name here]
Year of publication: [Insert year here]

Keywords

Herbivore Impact Assessment, Inverpolly SSSI/SAC, 2015

Background

A repeat herbivore impact assessment survey was carried out for Inverpolly SAC/SSSI between 29 June and 8 July 2015. A total of 176 plots were assessed, 79 for blanket bog, 70 for dry heath and 27 for montane acid grassland.

Main findings

- 85% of all plots had Low or Moderate-low herbivore impacts. Impacts were lowest for montane acid grassland where 96% of plots were in these categories. 80% of dry heath and 87% of blanket bog also had Low or Moderate-low impacts.
- There was a difference in impacts across the site. The highest impacts were still recorded in Eisg Brachaidh, where 33% of plots had Moderate and 2% had High-moderate impacts. The remaining 65% had Moderate-low impacts and no plots had overall Low impacts within this ownership area. By contrast, only 9% of plots on Drumrunie and 6% of plots on Inverpolly had Moderate impacts and none had higher impacts. 55% of Drumrunie plots and 43% of Inverpolly plots had Low impacts, the remainder were all Moderate-low.
- There was also a difference in grazing and trampling impacts both within the site and within ownership units. On Eisg Brachaidh, blanket bog grazing was higher than trampling, unusually so for this habitat, which is often trampled rather than grazed. Blanket bog grazing was also slightly higher than trampling on Drumrunie, whereas levels of both were similar on Inverpolly.
- By contrast, dry heath was more trampled than grazed on Eisg Brachaidh with 81% of plots with Moderate trampling and only 41% with Moderate grazing. It was the opposite for Drumrunie and Inverpolly, both of which had lower trampling than grazing impacts for dry heath.
- Trampling impacts were slightly higher than grazing for montane acid grasslands. 74% had Low grazing and 62% had Low trampling impacts, and while only 8% had Moderate grazing impacts, 30% had Moderate and 11% had High trampling ones.

- Impacts on Eisg Brachaid are starting to decrease, after the sharp increase following the 2011 fire. Dry heath impacts have decreased more than blanket bog ones.
- Impacts have decreased or stayed low on Drumrunie and Inverpolly since 2007, though this also differs between habitats and there have been small increases in impacts since 2013 in some areas.
- Montane acid grassland impacts had decreased sharply from 2007 to 2013, but increased slightly to 2015, largely due to a slight increase in trampling. 30% of plots had Moderate trampling impacts in 2015 as opposed to 19% in 2013. Grazing has, however, decreased for montane acid grasslands and only 7% of plots have Moderate grazing impacts versus 19% in 2013.
- Dry heath impacts have decreased since 2013, following an increase from 2007, primarily due to the 2011 fire. 8% of plots had High-moderate dry heath impacts in 2013; in 2015 there were none, though 20% still had Moderate impacts. They have decreased most on Drumrunie and also on Eisg Brachaidh, while the lower impact levels on Inverpolly from 2007 have largely been maintained.
- Blanket bog impacts have largely remained low on Inverpolly, and they have mostly decreased on Drumrunie since 2007, with a few localised increases since 2013, due to higher grazing impacts. On Eisg Brachaidh some of the higher impact plots have decreased, but localised higher impacts are still present, mostly due to grazing levels.
- The higher blanket bog grazing levels recorded in 2015 are likely to be a result of the cold, wet spring delaying vegetation growth and increasing grazing pressure on *Myrica gale* and on unpalatable dwarf shrubs such as *Erica tetralix*.

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1. INTRODUCTION

1.1 Background Information

A grazing and trampling impact survey was carried out in August/September 2007 to gather information in relation to the nature and distribution of herbivore impacts on a representative range of the designated interests. This was repeated during summer (July) 2013 and again in July 2015, to provide up to date information on impacts and to show changes in impact levels since the original survey.

This report covers the results of the 2015 survey and includes an assessment of the 2015 results and an analysis of changes since 2007.

1.2 Designations

Inverpolly is designated as an SAC for its extensive range of bog and heath habitats, including blanket bog, wet heath, transition mires and Rhynchosporion depressions. Other habitats of importance are European dry heath, alpine heath, montane acid grasslands, siliceous scree, siliceous rocky slopes with chasmophytic vegetation and old sessile oak woods, natural dystrophic lakes and ponds and oligotrophic to mesotrophic standing waters.
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The area is also designated as a Site of Special Scientific Interest (SSSI) for its Assemblage of upland Habitats in general as well as for blanket bog, oligotrophic lochs and upland birchwood.

1.3 Site Description

Inverpolly SAC/SSSI is located in northwest Sutherland, approximately 15 kilometres north of Ullapool. It encompasses 11877 hectares of undulating terrain with several larger hills, the highest of which is Cul Mor at 849 metres. Other major peaks within the SAC/SSSI are Cul Beag, Stac Pollaidh and An Laogh. The higher hills are all in the eastern and southern parts of the site, with the remainder of the site having a rocky terrain of knolls and outcrops as well as larger expanses of smooth bog.

Blanket bog is widespread within the site. Inverpolly SAC/SSSI has the largest expanse of western blanket bog on any upland site in the UK. The habitat is found on flatter ground and shallow slopes and includes pattern mire complexes with bog pools and large stands of transition mire. Wet heath is found on more steeply sloping ground as well as on thinner peat on and around rocky knolls in the western part of the site. Dry heath is more restricted. The largest stands are found on the south side of Stac Pollaidh and the steeper rocky slopes of the other big hills. Dry heath is also present in association with rocky knolls in the northwest in the area west of the road, on coastal slopes and in mosaic with woodland on roadsides and steep sides of knolls.

Montane acid grassland and alpine heath are the most restricted habitats within the site, and are only found on the summit ridges of Cul Mor, above 500 metres.

The site is popular with tourists. Stac Pollaidh, with its distinctive shape is often climbed by visitors, whereas many of the more serious hill walkers target the Corbett Cul Mor. Other parts of the site are only visited infrequently by tourists on foot.

1.4 Logistics

The survey was carried out between 29 June and 8 July 2015 by Ruth Maier, Tim Rafferty and Colin Wells. Access was on foot from the nearest road.

2. METHODS

The method used was a repeat of the methods used in 2007 and 2013 and the same sample locations were re-visited and assessed. The features surveyed were blanket bog (80 plots), dry heath (83 plots) and montane acid grassland (27 plots) (see table 1). These three habitats were selected as they represent a reasonable geographical spread across the site as well as a reasonable spread of sensitivity to herbivore impacts.

Table 1. Features assessed at the Inverpolly SAC/SSSI in 2015.

Feature	Assesment form used	NVC communities
Blanket bog	Blanket bog	M1-3, M17-19
European dry heath	Dry heath	H10, 12, 18, 21
Montane acid grassland	Wind-clipped summit communities	U10
	Tussock Grassland (U7)	U7

The random sample locations from 2013 were located with a hand-held GPS and at each one the relevant feature was searched for within a 20-metre radius and assessed if it was present. A new ten figure grid reference was recorded if the plot was moved from the supplied grid reference. Grid references denoted the SW corner of the plot, which was orientated N-S and E-W with the National Grid. Plot size was $4m^2$ (i.e. 2m x 2m) for most targets, though some were assessed on a 'visible' scale or for the whole feature. Dung was assessed for a 10m by 10m plot centred on the smaller plot.

The NVC community present at each plot was recorded in order to identify the appropriate indicators to be used (see table 1).

Standardised methods for assessing herbivore impacts on upland habitats (MacDonald *et al*. 1998) were employed for the 2015 survey, the same as for the 2008 & 2013 surveys. The small-scale field indicators provided by the upland habitats guide and more recent draft addendum (MacDonald 2007) were used to assess current grazing, browsing and trampling impacts and impact trends on the target habitats.

Trend indicators were also recorded which used the terms CH – Chronic High, CM – Chronic Moderate and CL – Chronic Low to describe long-term impacts and trends. Trend indicators were also recorded as D – Decreasing or I – Increasing if any changes in impact could be determined, otherwise they were assumed to be stable.

To make an overall assessment for each plot, High impact results were scored 3, High - moderate impacts 2.5, Moderate impacts 2, Moderate - low impacts 1.5 and Low impacts 1.

The combined scores were then averaged to give an overall score that was reclassified as follows:

0-1.249 Low
1.25-1.749 Moderate to Low
1.75-2.249 Moderate
2.25-2.749 High to Moderate
2.75-3 High

In addition to the assessment of impacts and trends, for each of the habitats assessed a small number of quantitative measures were also recorded. Many of these assess essentially the same indicators as those used in the impact assessment, but in a more quantitative way. They are used to measure changes in habitat condition over time more precisely.

The additional measures recorded for blanket bog assessments included estimating the percentage cover of the plot disturbed by hoof prints, the percentage cover of intact *Sphagnum* species, bare peat and re-vegetating peat. The percentage cover of browsing on long shoots of *Calluna vulgaris* and *Vaccinium myrtillus* was recorded for all plots and this was estimated based on an average assessment of ten handfuls of shoots. Average dwarf shrub vegetation heights were recorded based on ten measurements taken in each plot.

A comparison of the overall impact was made between the data from 2007, 2013 and that from 2015 and an assessment made of the changes between the three surveys.

Summary tables of all the overall assessments for overall, grazing, trampling and dunging indicators are given in Annex 1. Changes in impacts between the three surveys are given in Annex 2. Figures illustrating the changes are in Annex 3 and maps showing the distribution of impacts across the site are in Annex 4.

Prior to commencement of fieldwork in 2015, the surveyors assessed and discussed several plots together to minimise possible within-survey surveyor bias. There is likely to be some between-survey surveyor bias but this is difficult to quantify. As the 2015 survey was carried out by three of the four field surveyors from the 2013 survey, the between-survey bias is likely to be very small.

Nomenclature in this report follows Stace (1997) for vascular plants, Atherton *et al* (2010) for mosses and liverworts, and Coppins (2002) for lichens.

3. RESULTS

All 2013 survey locations were revisited and a repeat assessment was carried out for 79 blanket bog plots, 70 dry heath plots and 27 montane acid grassland plots. Three dry heath plots were discarded due to lack of suitable habitat within 50 metres of the survey location.

Table 2 shows the total number and percentage of plots recorded for each impact class for each habitat in the Inverpolly SAC/SSSI. The average overall, grazing, trampling and dung assessments made for each waypoint in each management unit are given in Appendix 1. The overall impacts for each habitat are illustrated in maps 1-3, appendix 4.

In the following sections grazing and trampling impacts are described in more detail for each feature as a whole and in different management units.

Table 2 Number and percentage of plots in each impact class for the whole site and for each management unit. G – grazing impacts, T – trampling impacts, All – Combined impacts.

		L	ML	M	HM	H	TOTAL
Dry heath	G	17 (24%)	41 (59%)	12 (17%)	0	0	70
	T	34 (49%)	13 (19%)	23 (33%)	0	0	70
	All	26 (37%)	30 (43%)	14 (20%)	0	0	70
Blanket bog	G	23 (29%)	37 (47%)	15 (19%)	3 (4%)	1 (1%)	79
	T	50 (63%)	22 (28%)	6 (8%)	1 (1%)	0	79
	All	22 (28%)	46 (58%)	10 (13%)	1 (1%)	0	79
Montane acid grassland	G	20 (74%)	5 (19%)	2 (7%)	0	0	27
	T	16(59%)	0	8 (30%)	0	3 (11%)	27
	All	16 (59%)	10 (37%)	1 (4%)	0	0	27

3.1 Blanket bog

3.1.1 Habitat Description

Blanket bog is extensive within the site, covering flat ground and gentle slopes throughout. The main NVC community is M17 *Trichophorum cespitosum – Eriophorum vaginatum* blanket mire, and both M17a, the *Drosera rotundifolia – Sphagnum ssp* sub-community and M17b, the *Cladonia* species sub-community were widespread. M1 *Sphagnum denticulatum* bog pools were frequent within wetter mires and transition mire systems were found more locally in the western part of the site.

3.1.2 Grazing and Trampling Impacts

Grazing and trampling impacts for blanket bog are illustrated in maps 4a and 4b. Table 3 shows that most of the impacts recorded for blanket bog were Low or Moderate-low, especially for trampling where 91% of plots were in these impact classes.

Trampling impacts were lowest within the Drumrunie where only 4% of plots were in the Moderate class. On Inverpolly 8% of plots had Moderate or higher trampling impacts and on Eisg Brachaidh it was 15% of plots.

Grazing impacts were slightly higher, with 24% of plots in the Moderate or higher impact classes. Many of these were on Eisg Brachaidh where 39% of plots had Moderate grazing impacts, 7% (2 plots) had High-moderate and 4%, a single plot, had High ones.

Grazing was lowest on Inverpolly where only 4% of plots had Moderate grazing impacts. On the Drumrunie, 15% (4 plots) had Moderate or High-moderate impacts.

Table 3. Grazing, trampling and combined impacts for blanket bog in each management unit within the Inverpolly SAC/SSSI.

		Drumrunie			Inverpolly			Eisg Brachaidh			Whole site		
		G	T	All	G	T	All	G	T	All	G	T	All
L	plots	13	19	13	8	16	9	2	15	0	23	50	22
	%	48	70	48	33	67	38	7	54	0	29	63	28
ML	plots	10	7	11	15	6	13	12	9	22	37	22	46
	%	37	26	41	63	25	54	43	32	79	47	28	58
M	plots	3	1	3	1	2	2	11	3	5	15	6	10
	%	11	4	11	4	8	8	39	11	18	19	8	13
HM	plots	1	0	0	0	0	0	2	1	1	3	1	1
	%	4	0	0	0	0	0	7	4	4	4	1	1
H	plots	0	0	0	0	0	0	1	0	0	1	0	0
	%	0	0	0	0	0	0	4	0	0	1	0	0
TOTAL	plots	27	27	27	24	24	24	28	28	28	79	79	79

3.2 Dry heath

3.2.1 Habitat Description

Dry heath was patchy within the site. It was most extensive on the slopes of Stac Pollaidh and on the steep north- and west-facing slopes of Cul Beag and Cul Mor. Dry heath was also widespread but more patchy in the northwestern part of the site, on coastal and roadside slopes and associated with rock outcrops. H10 *Calluna – vulgaris – Ercia cinerea* heath was the main community on lower and south-facing slopes, H12 *Calluna vulgaris – Vaccinium myrtillus* heath was most widespread at higher altitudes and there were a few patches of H21 *Calluna vulgaris – Vaccinium myrtillus – Sphagnum capillifolium* heath, mostly on north-facing rocky slopes.

3.2.2 Grazing and Trampling Impacts

Grazing and trampling impacts for dry heath are illustrated in maps 5a and 5b. Eighty percent of dry heath impacts recorded were in the Low or Moderate-low impact category and no plots had impacts higher than Moderate. Trampling impacts were slightly higher than grazing impacts with 33% of plots with Moderate trampling impacts as opposed to 17% with Moderate grazing impacts.

Trampling was lowest on Inverpolly where only a single plot had Moderate trampling impacts, all others were Low or Moderate-low. On Drumrunie, 21% (5 plots) had Moderate trampling impacts. Eisg Brachaidh had the highest trampling impacts with 81% of plots with Moderate trampling impacts.

On Inverpolly, all grazing impacts were Low or Moderate-low, whereas Drumrunie had Moderate grazing impacts in 8% (2 plots). Grazing impacts were highest for Eisg Brachaidh where 48% of plots had Moderate grazing impacts.

The higher impacts recorded for Eisg Brachaidh, especially the trampling impacts are still a result of the fire which affected much the site in 2011. This is discussed in more detail in section 3.5.

Table 4. Grazing, trampling and combined impacts for dry heath in each management unit within the Inverpolly SAC/SSSI.

		Drumrunie			Inverpolly			Eisg Brachaidh			Whole site		
		G	T	All	G	T	All	G	T	All	G	T	All
L	plots	9	18	14	7	16	12	1	0	0	17	34	26
	%	*38*	*75*	*58*	*28*	*64*	*48*	*5*	*0*	*0*	*24*	*49*	*37*
ML	plots	13	1	7	18	8	13	10	4	10	41	13	30
	%	*54*	*4*	*29*	*72*	*32*	*52*	*48*	*19*	*48*	*59*	*19*	*43*
M	plots	2	5	3	0	1	0	10	17	11	12	23	14
	%	*8*	*21*	*13*	*0*	*4*	*0*	*48*	*81*	*52*	*17*	*33*	*20*
HM	plots	0	0	0	0	0	0	0	0	0	0	0	0
	%	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
H	plots	0	0	0	0	0	0	0	0	0	0	0	0
	%	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
TOTAL	plots	24	24	24	25	25	25	21	21	21	70	70	70

3.3 Montane acid grassland

3.3.1 Habitat Description

Montane acid grassland is restricted to the summit slopes of Cul Mor, above 500m. U7 *Nardus stricta – Carex bigelowii* grass-heath is found on lower slopes and in more sheltered locations and snow hollows, whereas U10 *Carex bigelowii – Racomitrium lanuginosum* moss-heath was found in more exposed locations.

3.3.2 Grazing and Trampling Impacts

Grazing and trampling impacts for montane acid grassland are illustrated in maps 6a and 6b. Montane acid grassland was only recorded within Drumrunie. Trampling was higher than grazing, with 41% of plots in the Moderate or High trampling category. Only 11% of plots had Moderate grazing and no High grazing impacts were recorded.

Higher trampling impacts were recorded for 50% of U7 plots and 38% of U10 plots. Some of the plots with higher trampling levels were near footpaths and some, though not all of the trampling can be attributed to hill walkers.

Table 5. Grazing, trampling and combined impacts for montane acid grassland within the Inverpolly SAC/SSSI. All plots are within the Drumrunie ownership unit.

		U7			U10			All		
		G	T	All	G	T	All	G	T	All
L	plots	4	3	3	16	13	13	20	16	16
	%	*67*	*50*	*50*	*76*	*62*	*48*	*74*	*59*	*59*
ML	plots	1	0	3	3	0	7	4	0	10
	%	*17*	*0*	*50*	*14*	*0*	*38*	*15*	*0*	*37*
M	plots	1	3	0	2	5	1	3	8	1
	%	*17*	*50*	*0*	*10*	*24*	*14*	*11*	*30*	*4*
HM	plots	0	0	0	0	0	0	0	0	0
	%	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
H	plots	0	0	0	0	3	0	0	3	0
	%	*0*	*0*	*0*	*0*	*14*	*0*	*0*	*11*	*0*
TOTAL	plots	6	6	6	21	21	21	27	27	27

3.4 Herbivores

Few herbivores were seen during this survey. Deer sightings were occasional and consisted of a few individuals at a time. No larger herds were seen. Sheep were also scattered, and only a few were recorded, usually close to the road. Cattle were present close to Loch na Dail on Inverpolly, but they were restricted to a small part of the site between the river Polly and the road.

Old and more recent sheep and cattle dung was still plentiful at Eisg Brachaidh, especially in areas west of the road, but very little livestock was seen. The dung could have been left from livestock grazing the site early in the season, which would explain the higher grazing levels on less palatable vegetation which was recorded.

Livestock grazing had been part of the reason for higher impacts here in 2013, but stock levels seem to have finally been reduced. Part of the problem had been due to stock straying in from other areas, but fences have now been repaired to reduce the likelihood of this happening in the future. Only one small flock of 10 sheep was seen on a rocky knoll close to the road near waypoints 212, 214 and 219, no other sheep appeared to be present. There were also a few sheep along the roadsides in parts of Inverpolly Estate but numbers were low.

3.5 Comparison with previous surveys

3.5.1 Impact categories

Herbivore impacts have changed since 2007, but the change since 2013 has been much smaller. Charts 1-3 (Appendix 3) show the variation in the percentage of plots in different impacts categories in the three different years. The overall percentage of plots with Low or Moderate-low impacts has stayed the same at 85% in all three years, but the distribution and type of higher impact plots has varied. In 2013 there were more plots with High-moderate impacts than in either 2007 or 2015, with 5.6% as opposed to 0.5% to 0.6%.

In 2015, more blanket bog plots were in the Moderate-low impact category than in previous years with 58% as opposed to 42% in 2007 and 45% in 2013. The number of plots in the Low category has decreased correspondingly, and the number of plots in the High-moderate category has also dropped from 5% to 1%.

There have been more increases than decreases in blanket bog impacts since 2013, but these have all been small, usually only half a category up. This is illustrated on map 7, which shows impact increases and decreases scattered across most of the site. The easternmost part of the site within Drumrunie only shows decreasing or stable impacts.

Many of the blanket bog increases are linked to grazing targets. Dwarf shrubs were noticeably grazed in blanket bog plots, more so than in 2013, even though trampling levels were stable or decreasing. This affected especially *Myrica gale* and less palatable shrubs such as *Erica tetralix.* While the number of plots with High-moderate levels of browsing on palatable shrubs has stayed the same since 2013 with 25 plots, browsing on *Myrica gale* and on unpalatable shrubs has increased. This may be due to lack of other forage due to a cold wet spring delaying onset of growth of more palatable vegetation.

Dry heath impacts have decreased overall since 2013, following the increase from 2007 (see map 8), though they have not yet dropped to 2007 levels in all areas. Impacts have decreased in 22 plots and increased in 11. Many of the decreases have been on Eisg Brachaidh where decreases were recorded for almost half of all dry heath plots.

Impacts on Drumrunie which were quite high in 2007 have continued to decrease. Inverpolly which had much lower impacts already in 2007 has largely maintained these, and impacts have decreased in the plots on Stac Pollaidh which had Moderate impacts in 2007. Though some of the plots on Inverpolly show an apparent increase in grazing levels from Low to Moderate-low this is misleading. The change is due to one of the indicators, 'flowering of *Calluna vulgaris'*, being assessed as 'Uninformative' for some plots in 2015. Actual browsing levels in these plots have not increased.

Eisg Brachaidh dry heath impact levels are still higher than they were in 2007, but the recorded decrease in impacts is encouraging. The vegetation is recovering well from the 2011 fire, and dwarf shrub regeneration is good, though grazing levels on pioneer heather are still higher than elsewhere on the site. The higher trampling results in this part of the site are due to a lack of deep bryophyte carpets and presence of small patches of disturbed bare ground in previously burnt areas. These areas are becoming smaller, and trampling impacts should continue to decrease.

Montane acid grassland impacts have stayed similar to 2013, after a slight decrease from 2007, though impacts have increased in 4 plots, resulting in one plot with Moderate impacts (see map 9). Grazing has actually decreased in 16 plots and only increased in 3, whereas trampling has remained stable in most plots. The three plots with high trampling impacts in 2013 had the same high impacts in 2015, and trampling increased in 3 plots and decreased in none. Some of this trampling is due to hill walkers along the ridges, but plots also contained obvious deer hoof prints and scattered dung.

3.5.2 Quantitative measures

For blanket bog, browsing on *Calluna vulgaris* has decreased since 2013, from 21% to 13%, after the initial rise from 11% in 2007 (see table 6). This decrease was recorded for both Eisg Brachaidh which decreased from 34% to 18% and for Drumrunie where it decreased

from 19% to 11%. Blanket bog browsing levels on Inverpolly had already been low at 9% in the previous two cycles, and they increased very slightly to 10% in 2015.

Dwarf shrub height has remained similar, at 20cm down slightly from 21cm in 2013, after the initial drop from 24cm in 2007. The overall average masks the differences in dwarf shrub height between the estates. Dwarf shrub heights were much lower in Eisg Brachaidh, as a consequence of the burn in 2011 when they dropped from 29cm in 2007 to 13 cm in 2013. They increased again to 16cm in 2015. Heights change was less marked for Drumrunie, from 20cm in 2007 to 26cm in 2013 and 23cm in 2015. The initial increase corresponds well with the reduction in grazing during the same period.

Table 6. Quantitative data recorded for blanket bog in 2007, 2013 and 2015. AF – Drumrunie EB – Eisg Brachaidh, IP – Inverpolly, ALL – whole site.

2007	**AF**	**EB**	**IP**	**ALL**
Percentage of plot covered by intact *Sphagnum* spp.	28	60	52	39
Percentage of plot disturbed by hoofprints.	3.0	0.3	2.6	1.9
Percentage of plot covered by bare peat.	1	0	0	0
Percentage of plot covered by re-vegetating bare peat.	0	0	0	0
Percentage of long-shoots of *Calluna* are browsed.	23	1	9	11
Percentage of long-shoots of *Vaccinium* are browsed.	10	NA	NA	10
Average height of dwarf shrub cover within the plot in cm	19.5	28.7	25.9	24.7

2013	**AF**	**EB**	**IP**	**ALL**
Percentage of plot covered by intact *Sphagnum* spp.	37	44	37	47
Percentage of plot disturbed by hoofprints.	2.8	3.1	0.2	2.2
Percentage of plot covered by bare peat.	1	3	0	1
Percentage of plot covered by re-vegetating bare peat.	0	1	0	0
Percentage of long-shoots of *Calluna* are browsed.	19	34	9	21
Percentage of long-shoots of *Vaccinium* are browsed.	NA	NA	NA	NA
Average height of dwarf shrub cover within the plot in cm	26.1	12.6	24.7	21

2015	**AF**	**EB**	**IP**	**ALL**
Percentage of plot covered by intact *Sphagnum* spp.	50	44	29	42
Percentage of plot disturbed by hoofprints.	1.6	2.8	2	2.2
Percentage of plot covered by bare peat.	0	0	0	0
Percentage of plot covered by re-vegetating bare peat.	0	0	0	0
Percentage of long-shoots of *Calluna* are browsed.	11	18	10	13
Percentage of long-shoots of *Vaccinium* are browsed.	9	NA	0	7
Average height of dwarf shrub cover within the plot in cm	23	16	24	20

There was also a variation in the cover of intact *Sphagnum* within blanket bog plots. This was lowest in 2007 with 39% and highest in 2013 with 47%, dropping to 42% in 2015. There is again a variation between estates. The cover has steadily increased for Drumrunie, from 28% in 2007 to 37% in 2013 and 50% in 2015. It has stayed the same at Eisg Brachaidh from 2013 to 2015 at 44%, after a decrease from 60% in 2007 due to the fire. *Sphagnum* cover has decreased most in Inverpolly from 52% in 2007 to 37% in 2013 and 29% in 2015. Some of this is due to an increase in leaflitter and dense *Molinia* in less grazed plots, but on the whole this decline is puzzling. It is possible that *Sphagnum* is generally more patchy within Inverpolly. Plots are not usually placed in exactly the same spot in different years and they could have been placed in less *Sphagnum*-rich vegetation during 2015 than in previous years, though the 2013 data also shows this decrease.

The percentage of plots disturbed by hoofprints is low across the site and has stayed roughly the same since 2007 at 1.9% in 2007 and 2.2% in 2013 and 2015, though there is again variation within the site. Eisg Brachaidh plots were almost completely undisturbed in 2007 but registered 3.1% disturbance in 2013, dropping slightly to 2.8% in 2015. Inverpolly had 2.6% disturbance in 2007, almost none in 2013 but 2% again in 2015. Together with the decrease in intact *Sphagnum* cover this does suggest slightly higher trampling levels within Inverpolly in 2015, though grazing and overall impacts have remained low. Disturbance by trampling has decreased on Drumrunie, from 3% in 2007 and 2.8% in 2013 to 1.6% in 2015.

Though the number of plots with hoofprints was highest in 2015 with 62 plots, the percentage of disturbed ground in each was lower than in previous years. In 2013 disturbance was only recorded for 32 plots but the percentage of disturbed ground in each was higher. This suggests that impacts are now lower but possibly more spread out across the site.

Table 7. Quantitative data recorded for dry heath in 2007, 2013 and 2015. AF – Drumrunie EB – Eisg Brachaidh, IP – Inverpolly, ALL – whole site.

2007	AF	EB	IP	ALL
Percentage of long-shoots of *Calluna* are browsed.	36	10	16	21
Average height of dwarf shrub cover within the plot.	26	36	36	34

2013	AF	EB	IP	ALL
Percentage of long-shoots of *Calluna* are browsed.	17	41	7	21
Average height of dwarf shrub cover within the plot.	31	9	39	27

2015	AF	EB	IP	ALL
Percentage of long-shoots of *Calluna* are browsed.	14	30	9	17
Average height of dwarf shrub cover within the plot.	24	10	36	24

In dry heath plots, the average browsing on Calluna has dropped from 21% in both 2007 and 2013 to 17% in 2015 (see table 7). It has dropped most on Drumrunie, from 36% in 2007, to 17% in 2013 and to 14% in 2015. It rose in Eisg Brachaidh from 10% in 2007 to 41% in 2013 and dropped again to 30% in 2015. It was lowest on Inverpolly where it had dropped from 16% in 2007 to 7% in 2013, and risen again slightly to 9% in 2015.

Table 7. Quantitative data recorded for montane acid grassland in 2007, 2013 and 2015. All plots are within Drumrunie

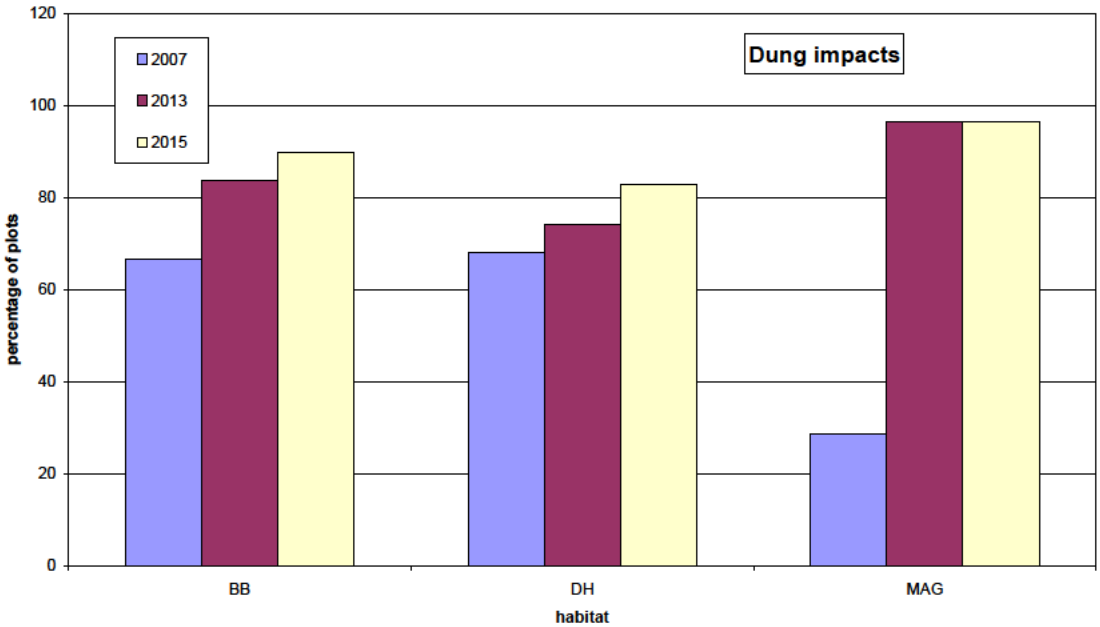
	2007	2013	2015
Percentage of plot disturbed by hoofprints.	11	2.5	4.4
Percentage of leaves grazed throughout the sample plot.	3	0.2	0.3

For montane acid grassland, the percentage of bare disturbed ground had dropped from 11% in 2007 to 2.5% 2013 but rose again slightly in 2015 to 4.4% (see table 8). Grazing levels dropped from 3% in 2007 to 0.2% in 2013 ad stayed similar in 2015 at 0.3%.

3.5.3 Dung

Dung impacts have decreased across the site. In 2007, 62% of plots had Low dung impacts. This rose to 81% in 2013 and to 88% in 2015. Most of the decrease has been for montane acid grassland plots (see Figure 1, where the percentage of plots with low dung impacts rose from 29% in 2007 to 96% in 2013 and 2015. As dung was recorded differently in 2007, with many intermediate categories, only the low impact data can be compared directly. The distribution of dung impacts across the site in 2015 is shown in map 10. This shows that, while dung levels are low for most of the site, they are still higher in Eisg Brachaidh, especially in the dry heaths close to the road.

Figure 1. Changes in the percentage of plots with Low dung impacts. BB – blanket bog plots; DH – dry heath plots; MAG – montane acid grassland plots



4. DISCUSSION

Impacts within the Inverpolly SAC/SSSI are now at Low or Moderate-low levels for much of the site, with 86% of plots in this category. There is considerable variation across the site, in overall impact as well as in grazing and trampling impacts, but many of the higher impacts recorded for parts of the site from 2013 are decreasing.

This is especially noticeable on Eisg Brachaidh, where the high impacts following the 2011 fire have dropped in many areas. Grazing on blanket bog and dry heath is still Moderate over much of the area but this has declined from higher impact levels, especially for dry heath plots. Trampling has also decreased for most of Eisg Brachaidh and the reduction in livestock numbers in this part of the site should lead to further reductions in impacts over the next few years. The bryophyte layer is still thin and patchy in some of the most intensely burnt areas, but it is showing signs of recovery and should continue to spread, following the reduction in livestock.

Impacts were already quite low on both Drumrunie and Inverpolly in 2013 and these have mostly either decreased further or remained stable. There were a few localised increases in impacts such as around Cul Beg where there was some tracking and obvious grazing in both blanket bog and dry heath areas, but overall levels were quite low.

Blanket bog browsing has increased locally, often due to higher browsing levels on *Myrica gale* and unpalatable dwarf shrubs such as *Erica tetralix*. Many of the plots with grazing impact increases are close to the road and they may be at least partly due to straying livestock. A few sheep were seen close to the road on both Eisg Brachaidh and Inverpolly and they are likely to move at least a short distance into the site.

2015 was a year with a cold, wet spring delaying the onset of grass growth in many parts of the country, including northwest Sutherland. The lack of palatable new growth is likely to have lead to the observed increase in browsing on *Myrica* and *Erica tetralix* and this is expected to be an anomaly. Browsing on palatable dwarf shrubs, mainly *Calluna vulgaris*, had actually decreased since 2013, again suggesting that once the vegetation started growing impacts were more spread out across the site.

Bracken is widespread on the lower dry heath slopes and it is invading dry heath plots. This is especially the case on Eisg Brachaidh, where some plots had to be moved from dense bracken.

The loss of dry heath habitat to bracken and woodland expansion has already been mentioned in 2013 and it is continuing. As the site is also designated for upland birchwood, the transition from open heath to woodland may be acceptable for this site, but the loss of dry heath due to bracken expansion may need to be addressed.

5. REFERENCES

Please list references in the Harvard style, as per examples shown below.

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ANNEX 1: IMPACT SUMMARY FOR ALL PLOTS IN 2015

1a) Blanket bog impacts. G – overall grazing impacts, T – overall Trampling impacts. IP – Inverpolly, AF – Drumrunie, EB – Eisg Brachaidh

ID	Surveyor	Date	X	Y	G	T	Dung	Total	Estate
7	TR	06/07/2015	212774	910689	ML	ML	L	ML	IP
8	TR	06/07/2015	212088	910285	ML	L	L	ML	IP
9	RM	08/07/2015	209064	913030	L	L	L	L	IP
10	CW	02/07/2015	213212	910193	L	L	L	L	IP
11	RM	08/07/2015	208722	911400	L	L	L	L	IP
12	TR	09/07/2015	208656	909985	ML	L	L	ML	IP
13	CW	02/07/2015	213090	910023	ML	L	L	L	IP
14	TR	06/07/2015	211381	911612	M	ML	L	ML	IP
15	RM	08/07/2015	208390	912870	L	L	L	L	IP
18	TR	06/07/2015	211352	911190	L	L	L	L	IP
19	TR	09/07/2015	209032	910290	ML	M	L	M	IP
20	TR	09/07/2015	209948	909785	ML	L	L	ML	IP
21	RM	08/07/2015	209244	913046	L	L	L	L	IP
22	TR	09/07/2015	211685	911407	ML	ML	L	ML	IP
24	TR	09/07/2015	209380	910642	ML	L	L	ML	IP
25	TR	06/07/2015	212598	910994	ML	L	L	ML	IP
26	TR	06/07/2015	210727	911673	ML	ML	L	ML	IP
27	RM	08/07/2015	208068	912316	ML	ML	L	ML	IP
28	TR	06/07/2015	211065	911228	L	L	L	L	IP
29	RM	08/07/2015	209353	913080	ML	ML	L	ML	IP
31	RM	08/07/2015	209480	913430	ML	L	HM	ML	IP
35	RM	08/07/2015	208600	911754	L	L	L	L	IP
36	TR	09/07/2015	209632	909738	ML	M	L	M	IP
37	RM	08/07/2015	209779	912877	ML	L	L	ML	IP
39	RM	01/07/2015	215953	906555	M	M	L	M	AF
41	CW	29/06/2015	218342	909201	L	L	L	L	AF
42	TR	09/07/2015	216179	905830	L	L	L	L	AF
44	TR	09/07/2015	213315	907495	ML	L	L	ML	AF
45	RM	01/07/2015	216505	907775	ML	L	L	ML	AF
46	RM	02/07/2015	213163	908795	M	ML	L	M	AF
47	RM	02/07/2015	212988	908241	HM	L	L	ML	AF
48	CW	29/06/2015	216033	908978	L	L	L	L	AF
49	RM	02/07/2015	215385	907912	L	L	L	L	AF
52	RM	07/07/2015	218124	910773	L	L	L	L	AF
53	TR	01/07/2015	219173	911623	L	L	L	L	AF
54	RM	02/07/2015	216983	907534	ML	L	L	ML	AF
56	RM	04/07/2015	216870	910478	ML	ML	L	ML	AF
57	CW	02/07/2015	214594	910618	L	L	L	L	AF
58	RM	01/07/2015	218059	907218	ML	ML	L	ML	AF
59	RM	01/07/2015	215434	906597	ML	ML	HM	ML	AF
60	TR	01/07/2015	218799	911237	L	L	L	L	AF
62	RM	03/07/2015	217409	911004	ML	ML	L	ML	AF
63	RM	02/07/2015	215809	907571	M	ML	HM	M	AF
64	CW	29/06/2015	218195	909950	L	L	L	L	AF
67	RM	05/07/2015	217117	909864	ML	L	L	ML	AF
69	RM	02/07/2015	215810	907290	ML	L	L	ML	AF
70	RM	01/07/2015	216496	906567	L	L	L	L	AF

ID	Surveyor	Date	X	Y	G	T	Dung	Total	Estate
71	TR	05/07/2015	219313	912554	L	L	L	L	AF
72	RM	01/07/2015	216186	906833	ML	L	L	ML	AF
73	RM	29/06/2015	217987	909815	L	L	L	L	AF
74	RM	06/07/2015	217552	910080	L	ML	L	L	AF
76	RM	06/07/2015	209880	917292	ML	L	L	ML	EB
77	TR	05/07/2015	210725	917417	ML	L	L	ML	EB
78	RM	05/07/2015	206737	918943	HM	L	HM	M	EB
80	TR	05/07/2015	212236	916983	ML	HM	HM	M	EB
81	TR	05/07/2015	211703	917359	L	M	L	ML	EB
82	RM	06/07/2015	210765	916001	ML	L	L	ML	EB
83	RM	06/07/2015	210486	917016	ML	L	L	ML	EB
84	RM	06/07/2015	208797	917306	L	ML	L	ML	EB
85	RM	05/07/2015	208604	918730	M	L	L	ML	EB
86	RM	06/07/2015	210272	916365	HM	ML	L	M	EB
87	TR	05/07/2015	210955	915080	M	ML	L	ML	EB
88	RM	06/07/2015	208738	917376	ML	L	L	ML	EB
89	TR	05/07/2015	210973	915303	ML	M	HM	ML	EB
91	TR	05/07/2015	211185	917564	ML	L	L	ML	EB
92	RM	06/07/2015	210897	916996	ML	ML	L	ML	EB
93	RM	06/07/2015	210098	916308	ML	L	L	ML	EB
94	TR	05/07/2015	211933	916082	M	M	L	M	EB
96	RM	05/07/2015	205742	919203	M	L	L	ML	EB
98	RM	06/07/2015	211047	915989	M	L	L	ML	EB
99	RM	05/07/2015	206011	918942	H	ML	HM	HM	EB
101	TR	05/07/2015	211290	915675	ML	L	L	ML	EB
103	TR	05/07/2015	210487	915366	M	L	L	ML	EB
104	RM	06/07/2015	208791	917551	M	ML	L	M	EB
106	TR	05/07/2015	211950	916410	M	ML	L	ML	EB
107	TR	05/07/2015	211954	915702	M	ML	L	ML	EB
108	TR	05/07/2015	211208	915155	ML	ML	L	ML	EB
109	RM	06/07/2015	210259	916636	M	L	HM	ML	EB
111	RM	05/07/2015	206999	918803	M	L	L	ML	EB

1b) Dry heath impacts. G – overall grazing impacts, T – overall Trampling impacts. IP – Inverpolly, AF – Drumrunie, EB – Eisg Brachaidh

ID	Surveyor	Date	x	y	G	T	Dung	Total	Estate
113	TR	06/07/2015	211241	910686	ML	L	L	ML	IP
114	RM	07/07/2015	211518	909545	ML	L	L	ML	IP
115	TR	09/07/2015	209100	909606	L	L	L	L	IP
117	RM	05/07/2015	208691	909095	L	L	L	L	IP
118	RM	07/07/2015	208786	912292	L	L	L	L	IP
120	TR	06/07/2015	210842	910123	ML	ML	L	ML	IP
121	TR	06/07/2015	210910	910308	ML	ML	L	ML	IP
122	RM	07/07/2015	211768	909156	ML	ML	L	ML	IP
123	RM	07/07/2015	208694	909045	L	L	L	L	IP
125	TR	09/07/2015	208940	909762	ML	ML	L	ML	IP
127	TR	09/07/2015	208171	910988	ML	L	L	ML	IP
129	RM	07/07/2015	211656	909301	ML	ML	L	ML	IP
131	TR	06/07/2015	211045	910760	ML	M	M	ML	IP
133	TR	09/07/2015	208723	910702	ML	L	L	L	IP

ID	Surveyor	Date	x	y	G	T	Dung	Total	Estate
136	TR	09/07/2015	208813	910666	ML	L	L	L	IP
137	TR	09/07/2015	208950	909616	L	L	L	L	IP
138	TR	06/07/2015	210877	910191	ML	ML	L	ML	IP
139	TR	09/07/2015	209765	909526	L	L	L	L	IP
140	TR	06/07/2015	210502	910446	ML	ML	L	L	IP
142	TR	06/07/2015	210677	910180	ML	ML	L	ML	IP
143	TR	09/07/2015	208837	910476	ML	L	L	L	IP
144	RM	07/07/2015	211715	909533	ML	L	L	ML	IP
146	TR	09/07/2015	208924	910582	ML	L	L	L	IP
147	TR	09/07/2015	208731	910790	ML	L	L	ML	IP
148	RM	07/07/2015	208561	913730	L	L	L	L	IP
149	RM	02/07/2015	213758	909429	M	L	L	ML	AF
151	TR	01/07/2015	219100	911345	ML	L	L	L	AF
152	CW	29/06/2015	217168	908708	L	L	L	L	AF
153	RM	02/07/2015	214687	906611	ML	M	L	M	AF
154	TR	01/07/2015	219707	911497	ML	L	L	ML	AF
155	RM	02/07/2015	214484	909445	ML	L	L	L	AF
158	TR	07/07/2015	220276	910858	ML	M	L	M	AF
160	TR	09/07/2015	216378	905921	L	L	L	L	AF
161	CW	29/06/2015	218744	909622	L	L	L	L	AF
163	CW	02/07/2015	215690	910162	L	L	M	ML	AF
165	TR	01/07/2015	219607	910223	M	M	L	ML	AF
166	TR	01/07/2015	219284	912361	L	L	L	L	AF
168	RM	02/07/2015	215189	908390	ML	M	L	ML	AF
170	CW	02/07/2015	215052	910921	L	L	L	L	AF
171	RM	02/07/2015	215350	909010	ML	L	L	L	AF
172	TR	01/07/2015	218346	911945	ML	L	L	L	AF
173	TR	01/07/2015	219935	911771	ML	L	L	L	AF
174	CW	29/06/2015	218694	909500	L	L	L	L	AF
175	TR	01/07/2015	218932	912222	ML	L	L	L	AF
177	CW	02/07/2015	215345	911337	ML	ML	H	M	AF
178	RM	02/07/2015	213991	909492	ML	L	L	L	AF
179	TR	07/07/2015	219614	910572	L	L	L	L	AF
180	TR	07/07/2015	220184	910587	L	M	L	ML	AF
181	TR	09/07/2015	213976	906857	ML	L	L	ML	AF
188	RM	05/07/2015	206054	919065	ML	M	L	ML	EB
190	RM	05/07/2015	206256	919139	ML	M	L	ML	EB
192	RM	05/07/2015	206350	919460	M	M	L	M	EB
196	RM	05/07/2015	208799	916415	M	M	L	M	EB
197	RM	05/07/2015	206383	919250	ML	M	L	ML	EB
199	RM	05/07/2015	206218	918732	M	M	L	ML	EB
200	RM	05/07/2015	207566	919310	M	M	L	ML	EB
201	RM	05/07/2015	207332	918984	M	M	M	M	EB
203	RM	05/07/2015	207293	918612	M	M	M	M	EB
204	RM	05/07/2015	205725	919221	ML	ML	L	ML	EB
205	RM	05/07/2015	208942	916235	M	M	M	M	EB
206	RM	05/07/2015	207411	918547	M	M	M	M	EB
207	RM	05/07/2015	209279	915522	L	ML	L	ML	EB
210	RM	05/07/2015	205690	919220	ML	ML	M	ML	EB
212	RM	05/07/2015	207654	918078	M	ML	H	M	EB
214	RM	05/07/2015	207645	917940	ML	M	M	M	EB

ID	Surveyor	Date	x	y	G	T	Dung	Total	Estate
216	RM	05/07/2015	206330	918839	ML	M	L	ML	EB
217	TR	05/07/2015	211767	917068	ML	M	L	M	EB
219	RM	05/07/2015	207557	917697	ML	M	M	M	EB
221	RM	05/07/2015	206433	919165	ML	M	L	ML	EB
222	RM	05/07/2015	206492	919181	M	M	M	M	EB

1c). montane acid grassland (U10). G – overall grazing impacts, T – overall Trampling impacts. IP – Inverpolly, AF – Drumrunie, EB – Eisg Brachaidh

id	Surveyor	Date	x	y	G	T	Dung	Total	Estate
224	CW	03/07/15	216040	911318	L	M	L	L	AF
225	RM	03/07/15	217004	912050	L	L	L	L	AF
226	RM	03/07/15	217088	911802	ML	M	L	ML	AF
228	RM	03/07/15	216916	911054	L	H	L	ML	AF
230	CW	03/07/15	215876	911684	L	L	L	L	AF
231	RM	03/07/15	217164	912018	L	L	L	L	AF
232	CW	03/07/15	216002	911847	L	M	L	L	AF
234	RM	03/07/15	217184	911746	L	L	L	L	AF
236	RM	03/07/15	217154	911942	L	L	L	L	AF
239	RM	03/07/15	216865	912361	L	M	L	ML	AF
240	CW	03/07/15	215779	911874	ML	L	L	ML	AF
241	RM	03/07/15	217326	911928	L	L	L	L	AF
243	CW	03/07/15	215991	911698	L	L	L	L	AF
244	CW	03/07/15	215755	911762	L	L	L	L	AF
246	RM	03/07/15	217248	911899	L	L	L	L	AF
250	CW	03/07/15	216286	911293	ML	H	H	M	AF
251	RM	03/07/15	216945	911915	L	H	L	ML	AF
252	CW	03/07/15	216118	911303	L	M	L	L	AF
253	RM	03/07/15	216998	911895	M	L	L	ML	AF
254	RM	03/07/15	217196	911869	M	L	L	ML	AF
256	RM	03/07/15	217015	912283	L	L	L	L	AF

1d) Montane acid grassland (U7). G – overall grazing impacts, T – overall Trampling impacts. IP – Inverpolly, AF – Drumrunie, EB – Eisg Brachaidh

id	surveyor	date	x	y	G	T	Dung	Total	Estate
238	RM	03/07/15	217088	912251	L	M	L	ML	AF
233	CW	03/07/15	216273	911571	ML	M	L	ML	AF
235	CW	03/07/15	216344	911460	L	M	L	ML	AF
247	CW	03/07/15	216231	911377	ML	L	L	ML	AF
248	CW	03/07/15	215954	911733	L	L	L	L	AF
249	CW	03/07/15	215908	911879	L	L	L	L	AF

ANNEX 2: CHANGES IN IMPACT LEVELS FROM 2007 - 2015

Blanket bog impact summary 2015

	L	ML	M	HM	H	Total	%L	%LM	%M	%MH	%H	TOTAL
G	23	37	15	3	1	79	29	47	19	4	1	100
T	50	22	6	1	0	79	63	28	8	1	0	100
Dung	73	0	0	8	0	81	90	0	0	10	0	100
Overall	22	46	10	1	0	79	28	58	13	1	0	100

Blanket bog grazing, trampling and dung impacts 2013-2015

	L	LM	M	MH	H	Total	%L	%LM	%M	%MH	%H	TOTAL
G 2013	28	35	15	2	0	80	35	44	19	3	0	100
G 2015	23	37	15	3	1	79	29	47	19	4	1	100

	L	LM	M	MH	H	Total	%L	%LM	%M	%MH	%H	TOTAL
T 2013	48	18	9	4	1	80	60	23	11	5	1	100
T 2015	50	22	6	1	0	79	63	28	8	1	0	100

	L	LM	M	MH	H	Total	%L	%LM	%M	%MH	%H	TOTAL
Dung 2013	62	0	0	18	0	80	78	0	0	23	0	100
Dung 2015	73	0	0	8	0	81	90	0	0	10	0	100

Blanket bog overall impacts 2007 -2015

Overall	L	LM	M	MH	H	Total	%L	%LM	%M	%MH	%H	TOTAL
2007	32	35	17	0	0	84	38	42	20	0	0	100
2013	35	36	5	4	0	80	44	45	6	5	0	100
2015	22	46	10	1	0	79	28	58	13	1	0	100

Dry heath impact summary 2015

	L	ML	M	HM	H	Total	%L	%ML	%M	%HM	%H	TOTAL
G	17	41	12	0	0	70	24	59	17	0	0	100
T	34	13	23	0	0	70	49	19	33	0	0	100
DUNG	58	0	10	0	2	70	83	0	14	0	3	100
OVERALL	26	30	14	0	0	70	37	43	20	0	0	100

Dry heath grazing, trampling and dung impacts 2013-2015

	L	LM	M	MH	H	Total	%L	%LM	%M	%MH	%H	TOTAL
G 2013	26	29	8	8	2	73	36	40	11	11	3	100

G 2015	17	41	12	0	0	70	24	59	17	0	0	100

	L	LM	M	MH	H	Total	%L	%LM	%M	%MH	%H	TOTAL
T 2013	8	36	18	8	3	73	11	49	25	11	4	100
T 2015	34	13	23	0	0	70	49	19	33	0	0	100

	L	LM	M	MH	H	Total	%L	%LM	%M	%MH	%H	TOTAL
Dung 2013	39	0	32	0	2	73	53	0	44	0	3	100
Dung 2015	58	0	10	0	2	70	83	0	14	0	3	100

Dry heath overall impacts 2007 -2015

	L	LM	M	MH	H	Total	%L	%LM	%M	%MH	%H	TOTAL
2007	41	31	11	1	0	84	49	37	13	1	0	100
2013	24	31	12	6	0	73	33	42	16	8	0	100
2015	26	30	14	0	0	70	37	43	20	0	0	100

Montane acid grassland impact summary 2015

	L	ML	M	HM	H	Total	%L	%ML	%M	%HM	%H	TOTAL
G	20	4	3	0	0	27	74	15	11	0	0	100
T	16	0	8	0	3	27	59	0	30	0	11	100
Dung	26	0	0	0	1	27	96	0	0	0	4	100
Overall	16	10	1	0	0	27	59	37	4	0	0	100

Montane acid grassland grazing, trampling and dung impacts 2013-2015

	L	LM	M	MH	H	Total	%L	%LM	%M	%MH	%H	TOTAL
G 2013	11	11	5	0	0	27	41	41	19	0	0	100
G 2015	20	5	2	0	0	27	74	19	7	0	0	100

	L	LM	M	MH	H	Total	%L	%LM	%M	%MH	%H	TOTAL
T 2013	19	0	5	0	3	27	70	0	19	0	11	100
T 2015	16	0	8	0	3	27	59	0	30	0	11	100

	L	LM	M	MH	H	Total	%L	%LM	%M	%MH	%H	TOTAL
Dung 2013	26	1	0	0	0	27	96	4	0	0	0	100
Dung 2015	26	0	0	0	1	27	96	0	0	0	4	100

Montane acid grassland overall impacts 2007 -2015

	L	LM	M	MH	H	Total	%L	%LM	%M	%MH	%H	TOTAL
2007	5	23	0	0	0	28	18	82	0	0	0	100
2013	18	9	0	0	0	27	67	33	0	0	0	100
2015	16	10	1	0	0	27	59	37	4	0	0	100

ANNEX 3: FIGURES

Figure 2a. changes in blanket bog impacts from 2007 to 2015.

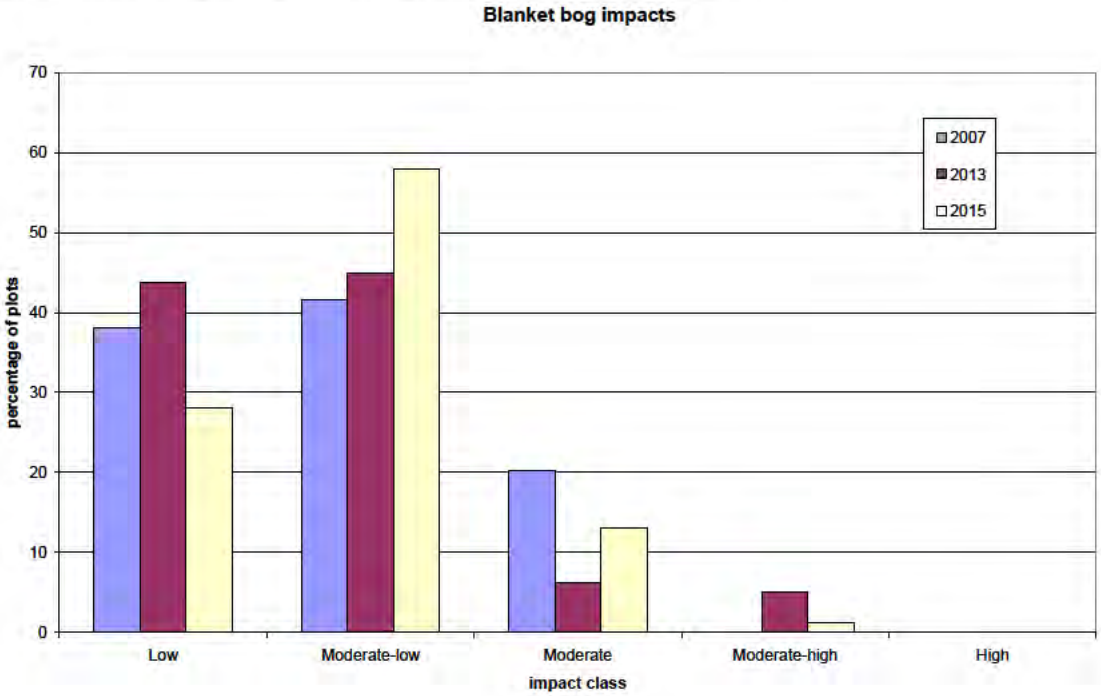


Figure 2b. Changes in dry heath impacts from 2007 to 2015.

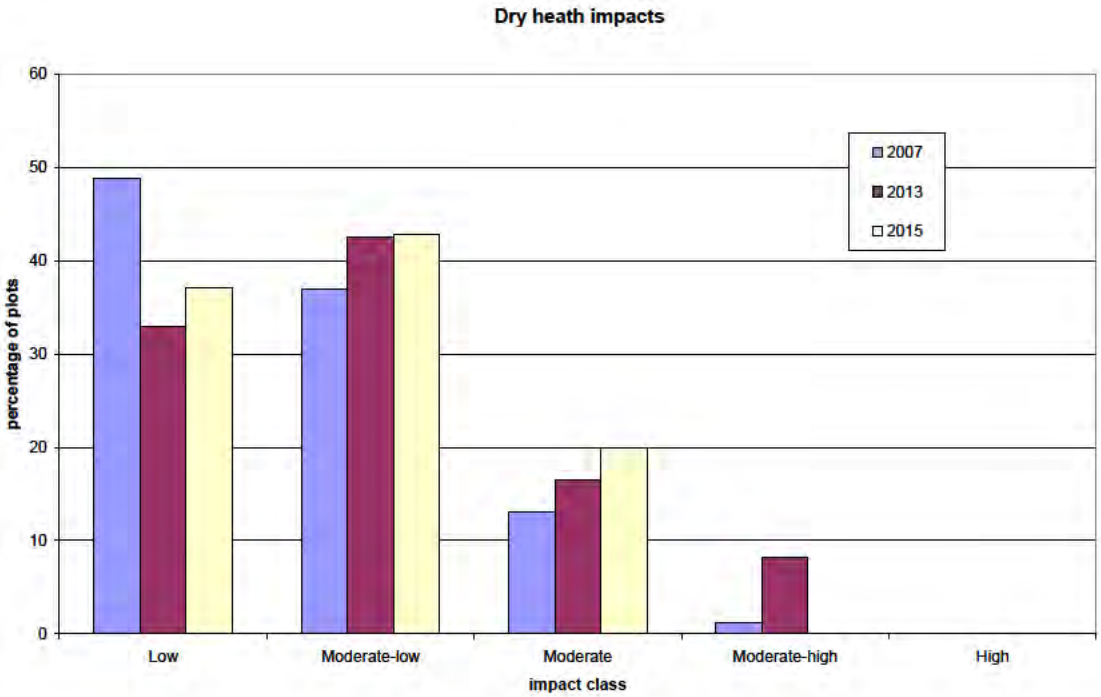
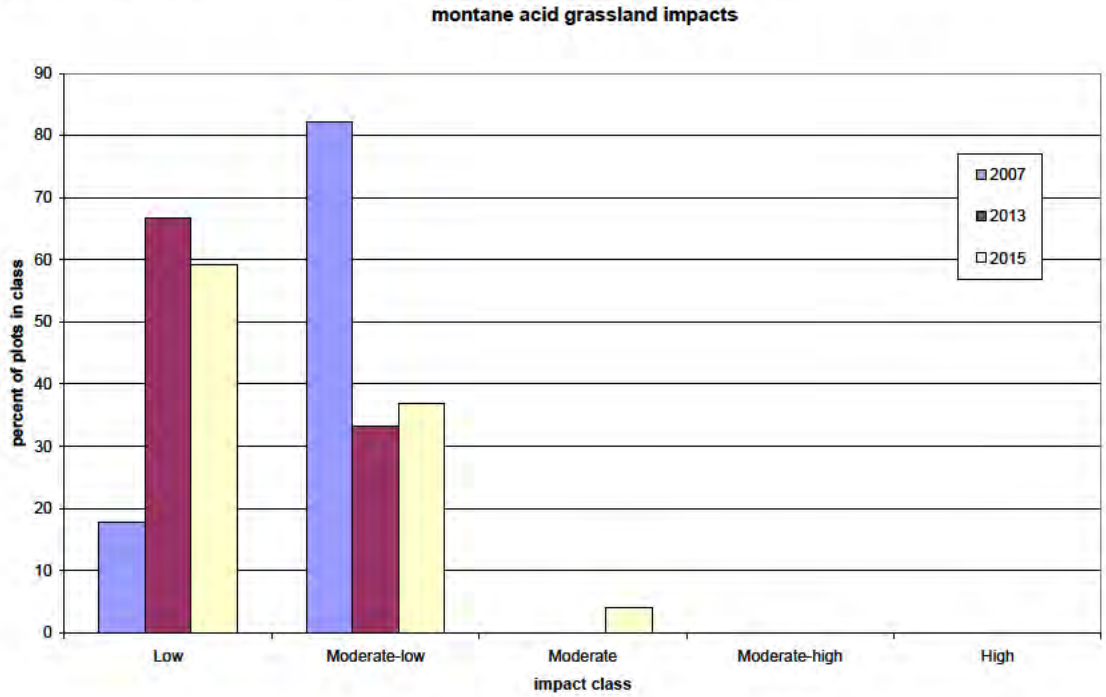


Figure 2c. Changes in montane acid grassland impacts from 2007 to 2015.



ANNEX 4: MAPS

From: [redacted]
To: Tamara Lawton
Cc: Sinclair Coghill
Subject: RE: Eisg Brachaidh Boundary Fence
Date: 18 December 2020 18:58:15

Hi Tamara

Thank you for taking time to read my letter.
The DMG discussions are getting nowhere.
We, along with others such as the Community Councils, have pointed out the negative consequences of this scheme.
We have also put forward alternative proposals to achieve similar or better outcomes without the negative consequences.
Eisg Brachaidh/Woodland Trust have a fully financed scheme so are not inclined loose their (SNH) money while they explore other options.
None of them live here so they have no concern about negative impacts on neighbours or others.
This is the problem with the SNH BCF which gives the grant first then design your scheme.
We have pointed out the lies in the application but your colleagues were not interested and very quickly told not to correspond with us.

Unless statutory bodies such as Forestry or SNH stop this scheme it will go ahead.

Happy Christmas
Regard$
[redacted]

From: Tamara Lawton <Tamara.Lawton@nature.scot>
Sent: 18 December 2020 17:43
To: [redacted] <info@inverpolly.com>
Cc: Sinclair Coghill <Sinclair.Coghill@nature.scot>
Subject: RE: Eisg Brachaidh Boundary Fence

Hi [redacted] thanks for sending that through. I shared this with Sinclair and we would urge you to continue the dialogue through the deer management group sub group and with the Estate in relation to your specific concerns.

Wishing you both a Merry Christmas and hopefully see you in 2021.

Kind regards,
Tamara

From: [redacted] <info@inverpolly.com>
Sent: 14 December 2020 15:04
To: Tamara Lawton <Tamara.Lawton@nature.scot>
Subject: Eisg Brachaidh Boundary Fence

Dear Tamara

I believe you are still doing the SSSI consent for the EB fence.
Below are my comments to the Forestry Authority.
I am not sure exactly what you take into account so I hope you don't mind me sending the whole email.

We have many deep concerns about this proposal.

Agricultural Damage
We are the agricultural tenants on Eisg Brachaidh and owners of Inverpolly.
Our cattle are used to wandering free over the hill grazing where they can do their job of facilitating regeneration.
They will start tracking the fence on the South side and start doing damage rather than improving the habitat.
The fence into Loch Buine Moire will be a hazard when the cattle try to walk/swim around the end of the fence.
The rocky shore can damage their legs and swimming is dangerous for young calves mixed in with big cows.
We will have to spend a lot of time and mileage checking the cows are not at the Buine Moire grid.

Economic Damage.
Stalking is an important side of our business.
We let three weeks of stags with accommodation in the Lodge worth [redacted] pw ex vat.
Lodge £[redacted], Stags £[redacted], venison £[redacted].
The deer model suggest we will lose two weeks and no we cannot let the Lodge without the sport.
Farm subsidies are coming under increasing pressure (In England they will be gone in 7 years) so our unsubsidised income will become more and more significant.
There is lost spend on cleaners and laundry.
There is lost spend by guests in the local shops on food, drink, gifts, etc.
The Lodge sleeps 18 so plenty of guests go shopping and exploring the area when not stalking.

Visual Damage.
This area is heavily designated because it is largely unspoilt by human intervention.
What do National Scenic Area and Wild Land mean if not to be very careful about what we do.
This huge fence will be a gross intrusion in an otherwise unspoilt area.
Stac Polly, Cul mor and Suilven are climbed by thousands of people every year who will look down on our beautiful prehistoric landscape with wonder until they realise someone has spoilt it with miles of deer fence going around Sionascaig and the Fionn Loch.
The foot path up the North side of the Kirkaig is extremely popular but will now have a fence tracking up the other side of the River and around the edge of the Fion Loch.
The picture on the front of the OS Landranger 15 map illustrates the point.
Hundreds of canoeists and fishermen go out on the lochs each week. Their experience will be greatly diminished because it will no longer be the "wild" experience they were hoping for.

Access Damage.

There are no major paths on Eisg Brachaidh but that does not mean there is no one walking there.
The OS Pathfinder NC 01/11 shows a coastal path from Loch an Sal to Eisg Brachaidh which quite a few people try to follow but as the path is not defined on the ground they end up taking a variety of routes.
Are they going to find the single pedestrian gate provided?
Where are the other gates going to go and how are people going to find them?
Canoeing down Veyatie, Fionn Loch and over to Sionascaig and out through Buine Moire is very popular and in a lot of guides.
Google "Canoe Sionascaig" and see how many entries there are and how important "wildness" is.
I know of at least two local guides who use this route and there are many more from elsewhere.
Some include Loch a Ghille on the route which will need two fence crossings and spoil the adventure.
There is no definitive map of the fence yet but I understand it is to be as close to the Estate boundary as possible.
Will fishermen be able to walk around the lochs freely and not be in danger of hooking the fence by mistake when they cast?

Damage to the environment.
There is considerable regeneration to the North and South of the fence which is going to suffer increased deer impacts.
This can be mitigated to some extent by increased deer culling but mitigation is never going to be 100% effective.
This is a burden that will fall on neighbours with no compensation from the developers.
The ground on the Kirkaig side is very steep and difficult to fence.
The easiest route would be above the trees but about 40% of the EB woodland is up the side of the River so it looks like the fence is to zig zag through the woods.
How many trees will need to be cut down?
How much woodland will be outside the fence and suffer increased damage?
Fresh Water Pearl Mussels are part of the site designation.
The wood used in fencing is all treated with toxic chemicals some of which will be washed off the hundreds of posts in close proximity to the Kirkaig.
Loch Buine Moire will have two fence ends with lots of woodwork in the water.
Can you be sure this will have no effect on the mussels?

Damage to the Deer
I have attached the May 2019 impact assessment by Sinclair Coghill.
EB and the adjoining Inverpolly ground is the only low ground available to deer that is not full of houses.
The fence will remove EB and block access to Inverpolly.
In the Winter and bad weather deer trying to move to shelter and avoid people will hit five miles of deer fence and be guided down to Inverkirkaig.
There is already enough conflict in Lochinver with deer in the village, this will be the case all the way down to Inverkirkaig.
As mentioned above mitigation is only ever partially successful.
This is what has brought strong objections from the two local Community Councils.
Deer welfare is likely to be a particular problem to the East where deer will be trapped between

Sionascaig, Fionn Loch and the fence.
There is no indication space will be left between the fence and the lochs for deer movement or indeed any indication the developers care what happens outside the fence.
The space will have to be wide enough for deer to feel able to follow it and so the ground can take the traffic without too much damage.
The economic decision taken, when the fence came in over budget, not to fence around Loch Buine Moire immediately turns this tree scheme into a deer trap.
This greatly increases the Socioeconomic cost of this scheme. 6 stags in is a week's stalking lost.
Deer coming in will not all be shot before they can eat some trees.
It is ridiculous to put up so many miles of fence and then leave a hole in it.

Fire
The big fire in 2011(I think) is the reason for the lack of regeneration on EB.
Previously there was the best unfenced regen in the area which had come in the 30 years since the previous fire.
This regen will come again specially as deer numbers are currently maintained at lower levels than previously.
You only need to look at the regen to the North and South to see this is true.
Fencing is designed to cure the wrong problem and will make the next fire worse.
SNH do not have £10,000 to put the fire out and prevent damage but have £200,000 to try and fix the damage.

Options

1. Continue existing management of deer and cattle grazing. The regen will come as the effects of the fire wear off.
   Have a financed fire plan in place so a helicopter can be called without delay.(This needs to happen for all options)

2. Small enclosures in the right place have worked in the past.
   When the boundary fence proposal appeared we offered 500 acres of enclosures but this was turned down.
   This is still available.
   This could still produce more regen with less downside than the big fence.
   We have previously had endless discussions about enclosures but these were all designed to be of no cost to the land owners but came at cost(lost income) to the tenants.
   There is no reason enclosures could not be designed to balance Live Stock Exclusion payments (£43) against lost agricultural payments (£13).

3. Boundary Fence has all the downsides mentioned above and no guarantees of success to balance the considerable downsides.
   The practicalities of actually building the fence are huge.
   The difficulties on the Kirkaig side have been mentioned.
   Machine access to the South side will be very difficult but also very necessary with all the metal posts required.

4. Deer and cattle management has been proposed by [redacted].
   This is not our preferred option but is miles better than the boundary fence.

[redacted] has been absolutely right in his solution to conflicts at Ardvar Woods bringing peace and regeneration.
The reduction in deer numbers, by nearly a quarter, is likely to cost us a week stalking but this could be balanced by money for cattle management.
The huge benefit would be in increased regen over the entire sub group area not just Eisg Brachaidh.

I hope I have shown there are considerable genuine downsides to the Boundary fence proposals and that there are other viable options for achieving the same aims with less controversy.

Yours sincerely

[redacted]

Neighbour and tenant

From: [redacted]
To: [redacted]@forestry.gov.scot; Tamara Lawton
Subject: Eisg Brachaidh Fence
Date: 19 December 2020 11:28:42
Attachments: image0.png

Dear [redacted] and Tamara

The attached minutes of Assynt Community Council Meeting on 26th November 2020 published in the Assynt News.
They confirm ACC are still against the fence and question the decision making of Assynt Foundation who have not consulted their members (or the rest of the community) about their support of the EB fence.

Regards
[redacted]

Assynt Community Council
19.30 Thursday 26th November 2020
On-Line meeting Draft Minutes (Amended)

1 Present

Katherine Anderson (KA), Alex Dickson (AD), Malcolm Bangor-Jones (MBJ), Phil Jones (PJ), Mary Kelly (MK), Liam Taylor (LT) (Chair) **Others:** Kirsteen Currie (KC) (Highland Councillor)

2 Apologies

Donald Morrison (DM)

3 Expressions of Interest

None

4 Minutes of Previous Meeting and Matters Arising

9 Deer Consultation update

Cameron Kennedy, the local keeper, is aware of one stag persistently gaining entry into gardens along Cruamer and Bay View and behaving aggressively. There have also been reports of a stag accessing the passage between the Spar and the shops and eating the fresh produce following early morning deliveries to the Spar loading bay.

10 Eisg Brachaidh Update

Following the latest Deer Management Sub-Group meeting no further progress has been made on reaching an agreement on the fencing issue. Members of the local DMGs have discussed this for several years but been unable to reach a consensus. The Assynt Foundation recently expressed their support for the proposed boundary fence before seeing the estate's Deer Management Plan. They reached this decision due to the anticipated benefits for woodland regeneration and claimed there had been no objections from AF members regarding their decision. PJ pointed out that members of the AF had not been made aware a decision was being considered or that one had been made on their behalf, which would explain why no one had objected. None of this would have come to light had PJ not attended the WSDMG on-line meeting in October. The DMGs are aware of the ACC's feelings and many members share the same concerns and the CC has noted the current status of deliberations.

11 Community Services

PJ has written to Joanne Sutherland, Community Services Manager, on the issues raised in October but has received no response to date.
AD has yet to receive quotes for the painting of the Cruamer fence and for replacement fencing. LT is also awaiting a reply from John MacKay regarding work needed at the play park.
The materials for the Clashnessie boardwalk have been in place for some time but work has yet to start. It was suggested HC be asked to arrange for a quote from an approved professional joiner who would install the support struts before a local workforce carried out any other work. This would ensure the structure met with the necessary Health and Safety standards for the purpose of satisfying public liability insurance demands.
LT is to pass on details of volunteers for Winter Resilience support to HC but there is a need for clarification on whether or not HC will continue to be accountable for gritting those parts of the village covered by volunteers. If this is not to be the case, it is unlikely anyone will be prepared to take on this responsibility.

From: [redacted]
To: Tamara Lawton; Sinclair Coghill
Subject: FW: Eisgh Bracaidh FWPMs
Date: 22 December 2020 13:02:29

FYI

From: [redacted]@gmail.com>
Sent: 22 December 2020 10:45
To: scotland@woodlandtrust.org.uk
Cc: [redacted]@forestry.gov.scot; Jimmy.Hyslop@nature.scot
Subject: Eisgh Bracaidh FWPMs

Dear [redacted]

I write in response to your update to the community regarding your proposals for Eisgh Brachaidh.

Whilst nothing I say will divert you and your partners from this blinkered view of the solutions to the "problems" at Eisgh Brachaidh say it I must.

To suggest that [redacted] 3rd option of increasing the deer cull across the landscape has no funding for the next 20-30 years is disingenuous in the extreme. Deer management in the area has reduced the density to 5/ sqK without funding and is a result of the ongoing estate management that local deer groups have done and will continue to do at no cost to the tax payer unlike the grandiose schemes that you preside over. There is no obvious funding for the fence over that period.

The water courses each side of Eisgh Brachaidh, the [redacted], the [redacted] and the [redacted] are important for freshwater pearl mussels. These filter feeders are *very* susceptible to trace elements in the water. There are 3 factors in your project that could endanger this most precarious of species.
1 The 12 miles of fence will involve 926 metric tons of galvanised wire being put into a wet acidic environment, most of it alongside water. That is 55 metric tons of Zinc. Zinc is very toxic to fish but especially FWPMs. Trace metals bind to organic particles and these when washed into the river will be taken in by filter feeders.
2 The Tanalith used in preserving the wooden posts is a copper compound. Tests show that these leach out into the environment, rapidly at first but continuously thereafter for the life of the post. Again these copper compounds will bind to organic particles in the peat and be washed into rivers. Tracking and erosion on the outside (and often inside) of deer fencing caused by deer walking along the fence will mobilise the contaminated peat and allow it to wash into the water courses where it will be consumed by the mussels.
3 The proposal includes some additional planting of trees and other species. If these are fertilised on planting the eutrophication of the catchment will be lethal to FWPMs which are very sensitive to nitrate and phosphate levels.

Can you categorically state that the placement of such large quantities of toxic materials in an acidic and sensitive environment will have NO effect on the invertebrate community of the catchment. Environmental history is littered with cases of damage and species loss caused by well intentioned but ill advised activities. The precautionary principle should apply. A salmon farming company recently pulled plans to build a fish farm off Eisgh Brachaidh precisely because they couldn't guarantee there would be no effect on the pearl mussels in the [redacted].
It would be a tragic irony if in your unwarranted attempts to cultivate common species of trees you decimated or wiped out a truly fragile community of another species. Be assured that if the pearl mussels disappear from the area the blame will be levelled at you.

There are so many reasons why the defiling of the landscape with a monstrous fence should not go ahead but I truly believe that poisoning the landscape with so much man made material is very relevant.

Yours sincerely
[redacted]

From: [redacted]
To: Tamara Lawton
Subject: Eisgh Brachaidh FWPMs and Proposed Fencing
Date: 23 December 2020 16:10:38

Dear Tamara

I attach a copy of an email I sent to the Woodland Trust copied to Forestry Scotland and Jimmy Hyslop at Nat Scot

I understand that you would have to approve the proposed fencing re the SSSI at Eisgh Brachaidh. I write because I am concerned that due consideration is not being given to possible effects of the Copper based preservative and galvanised Zinc from the proposed fence on the Pearl Mussels in the [redacted] and the [redacted]. As you know FWPMs are particularly sensitive to pollutants and although I cannot find any direct literature re the possible effects I believe that the known leachability of Zn and Cu compounds from fencing should sound alarms when such a large amount of fencing close to sensitive water sources is proposed. I think that the tracking by deer along the fence line is particularly relevant in this case as it will disturb peat with trace metals bound to it which will owing to the very steep banks involved readily wash into the rivers. FWPMs are a lot rarer and more fragile than the habitat that this fence is supposed to be protecting; the precautionary principle should apply and the ground should be kept free of contaminants.

Thank you for your time
kind regards [redacted]
ref "Leaching of copper from wood treated with copper based preservatives" Mika Humar Marko Petric Franc Pohleven
"Leaching of Wood Preservative Components & their Mobility in the Environment, Summary of Pertinent Lit" Stan Lebow US Dept Agriculture

My email to [redacted] at the Woodland Trust;

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1 The 12 miles of fence will involve 18 metric tons of galvanised wire being put into a wet acidic environment, most of it alongside water. That is 1.1 metric tons of Zinc. Zinc is very toxic to fish but especially FWPMs. Trace metals bind to organic particles and these when washed into the river will be taken in by filter feeders.
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wash into the water courses where it will be consumed by the mussels.
3 The proposal includes some additional planting of trees and other species. If these are fertilised on planting the eutrophication of the catchment will be lethal to FWPMs which are very sensitive to nitrate and phosphate levels.

Can you categorically state that the placement of such large quantities of toxic materials in an acidic and sensitive environment will have NO effect on the invertebrate community of the catchment. Environmental history is littered with cases of damage and species loss caused by well intentioned but ill advised activities. The precautionary principle should apply. A salmon farming company recently pulled plans to build a fish farm off Eisgh Brachaidh precisely because they couldn't guarantee there would be no effect on the pearl mussels in the [redacted].
It would be a tragic irony if in your unwarranted attempts to cultivate common species of trees you decimated or wiped out a truly fragile community of another species. Be assured that if the pearl mussels disappear from the area the blame will be levelled at you.

There are so many reasons why the defiling of the landscape with a monstrous fence should not go ahead but I truly believe that poisoning the landscape with so much man made material is very relevant.

Yours sincerely
[redacted]

From: Iain Sime
To: Tamara Lawton
Subject: RE: Eisgh Brachaidh FWPMs and Proposed Fencing
Date: 15 January 2021 18:50:44

Hi Tamara

Thanks again for sending your email.

The enquirer states that there is little/no known info on the susceptibility of pearl mussels to metals. We summarised the state of knowledge back in 2005, which described the decreasing order of toxicity in metals as being Cu>Cd>Zn and Ni. So, they are correct in describing pearl mussels as being susceptible to Copper and Zinc. However, I can categorically advise that the erection of fencing will pose no metal risk to any resident pearl mussels. Both ourselves, and other organisations across Europe, routinely erect fencing within conservation projects for the species. In a wire fence, with standard posts, there is simply insufficient leaching of metals to pose a risk to pearl mussels or other components of the water environment. As an example, pearl mussels successfully recruit in the [redacted] which receives cooling water discharges from distilleries who operate copper stills and discharge with slightly elevated copper concentrations compare to background levels. More relevant to this case, there is a watercourse in the Hebrides where restructuring of the woodland, which includes considerable fencing has resulted in the population now recovering and starting to recruit for the first time in decades. And this is just one example where fencing, and improved riparian management, is benefiting the conservation of pearl mussels and salmonids.

The enquirer also raises the issue of trampling from stock around the fence. This could locally increase silt or fine sediment discharge but, again, this would not be expected to have an impact other than at a very local level where any track created by animals crossed the watercourse. But a well-designed fence line and river crossing(s) can mitigate against this minor local risk.

The enquirer also mentions potential eutrophication. We have previously reviewed this with Forest Research and evidence from the Halladale and other catchments has demonstrated that hand application of rock phosphate within riparian areas does not have any impact on the phosphorus concentration in the watercourse and therefore poses no risk to pearl mussels.

I hope that helps reassure the enquirer. It would also be expected that the proposed works, if they result in increased woodland cover will actively conserve the local pearl mussel and salmonid populations. This is by providing woody and other debris that will eventually fall in the river and increase habitat diversity. But also important shade that will mitigate potentially damaging temperature peaks within the river or burns.

Best wishes,
Iain

Iain Sime | Freshwater & Wetlands Advice Manager | he/him/his

NatureScot | Great Glen House, Leachkin Road, Inverness, IV3 8NW | m: [redacted]

nature.scot | @nature_scot | *Scotland's Nature Agency* | *Buidheann Nàdair na h-Alba*

From: Tamara Lawton <Tamara.Lawton@nature.scot>
Sent: 06 January 2021 16:51
To: Iain Sime <Iain.Sime@nature.scot>
Subject: FW: Eisgh Brachaidh FWPMs and Proposed Fencing

Hi Iain, happy new year (I guess…☺)
just a heads up as I see from your calendar you are in today only this week!

This email below has come in regarding the Eisg Brachaidh fence proposal. I know we previously briefly chatted about the potential for fences to affect pearl mussels and you were pretty sure that we did not consider this an issue. However, I am going to request formal advice from you next week to cover this issue – although I do not have the final proposed fence line as yet – it will be close to the [redacted] at points but will likely have less contact with the watershed for the [redacted].
It would be useful to also weigh up the benefits of more woodland cover?

Happy to chat next week if that would help.

[redacted]

Cheers,
Tamara

From: [redacted]@gmail.com>
Sent: 23 December 2020 16:10
To: Tamara Lawton <Tamara.Lawton@nature.scot>
Subject: Eisgh Brachaidh FWPMs and Proposed Fencing

Dear Tamara

I attach a copy of an email I sent to the Woodland Trust copied to Forestry Scotland and Jimmy Hyslop at Nat Scot

I understand that you would have to approve the proposed fencing re the SSSI at Eisgh Brachaidh. I write because I am concerned that due consideration is not being given to possible effects of the Copper based preservative and galvanised Zinc from the proposed fence on the Pearl Mussels in the [redacted] and the [redacted]. As you know FWPMs are particularly sensitive to pollutants and although I cannot find any direct literature re the possible effects I believe that the known leachability of Zn and Cu compounds from fencing should sound alarms when such a large amount of fencing close to sensitive water sources is proposed. I think that the tracking by deer along the fence line is particularly relevant in this case as it will disturb peat with trace metals bound to it which will owing to the very steep banks involved readily wash into the rivers. FWPMs are a lot rarer and more fragile than the habitat that this fence is supposed to be protecting; the precautionary principle should apply and the ground should be kept free of

contaminants.

Thank you for your time
kind regards [redacted]
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Whilst nothing I say will divert you and your partners from this blinkered view of the solutions to the "problems" at Eisgh Brachaidh say it I must.

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Can you categorically state that the placement of such large quantities of toxic materials in an acidic and sensitive environment will have NO effect on the invertebrate community of the catchment. Environmental history is littered with cases of damage and species loss caused by well intentioned but ill advised activities. The precautionary principle should apply. A salmon farming company recently pulled plans to build a fish farm off Eisgh Brachaidh precisely because they couldn't guarantee there would be no effect on the pearl mussels in the [redacted].
It would be a tragic irony if in your unwarranted attempts to cultivate common species of trees you decimated or wiped out a truly fragile community of another species. Be assured that if the pearl mussels disappear from the area the blame will be levelled at you.

There are so many reasons why the defiling of the landscape with a monstrous fence should not go ahead but I truly believe that poisoning the landscape with so much man made material is very relevant.

Yours sincerely

[redacted]

From: Iain Sime
To: Tamara Lawton
Subject: RE: Eisgh Brachaidh FWPMs and Proposed Fencing
Date: 19 January 2021 12:05:58

Hi Tamara,

In the overall interest of remaining circumspect, I suspect it might be best to refer to the [redacted] as you suggest, and then ask him to also refrain from mentioning where the mussels are on Inverpolly.

Cheers
Iain

Iain Sime | Freshwater & Wetlands Advice Manager | he/him/his

NatureScot | Great Glen House, Leachkin Road, Inverness, IV3 8NW | m: [redacted]

nature.scot | @nature_scot | *Scotland's Nature Agency | Buidheann Nàdair na h-Alba*

From: Tamara Lawton <Tamara.Lawton@nature.scot>
Sent: 18 January 2021 17:24
To: Iain Sime <Iain.Sime@nature.scot>
Subject: RE: Eisgh Brachaidh FWPMs and Proposed Fencing

Apols, forgot to ask – is it okay to include the ref to [redacted] example when I reply? Or should I say 'river on the east coast'? [redacted]

Also should I be asking him politely to refrain from telling everyone where the mussels are on Inverpolly? Feels like this should be kept more quiet than it is.

From: Tamara Lawton
Sent: 18 January 2021 17:05
To: Iain Sime <Iain.Sime@nature.scot>
Subject: RE: Eisgh Brachaidh FWPMs and Proposed Fencing

Thanks Iain, that's perfect.

That will be useful for the HRA also..

Cheers,
Tamara

From: Iain Sime <Iain.Sime@nature.scot>
Sent: 15 January 2021 18:51
To: Tamara Lawton <Tamara.Lawton@nature.scot>
Subject: RE: Eisgh Brachaidh FWPMs and Proposed Fencing

Hi Tamara

Thanks again for sending your email.

The enquirer states that there is little/no known info on the susceptibility of pearl mussels to metals. We summarised the state of knowledge back in 2005, which described the decreasing order of toxicity in metals as being Cu>Cd>Zn and Ni. So, they are correct in describing pearl mussels as being susceptible to Copper and Zinc. However, I can categorically advise that the erection of fencing will pose no metal risk to any resident pearl mussels. Both ourselves, and other organisations across Europe, routinely erect fencing within conservation projects for the species. In a wire fence, with standard posts, there is simply insufficient leaching of metals to pose a risk to pearl mussels or other components of the water environment. As an example, pearl mussels successfully recruit in the [redacted] which receives cooling water discharges from distilleries who operate copper stills and discharge with slightly elevated copper concentrations compare to background levels. More relevant to this case, there is a watercourse in the Hebrides where restructuring of the woodland, which includes considerable fencing has resulted in the population now recovering and starting to recruit for the first time in decades. And this is just one example where fencing, and improved riparian management, is benefiting the conservation of pearl mussels and salmonids.

The enquirer also raises the issue of trampling from stock around the fence. This could locally increase silt or fine sediment discharge but, again, this would not be expected to have an impact other than at a very local level where any track created by animals crossed the watercourse. But a well-designed fence line and river crossing(s) can mitigate against this minor local risk.

The enquirer also mentions potential eutrophication. We have previously reviewed this with Forest Research and evidence from the Halladale and other catchments has demonstrated that hand application of rock phosphate within riparian areas does not have any impact on the phosphorus concentration in the watercourse and therefore poses no risk to pearl mussels.

I hope that helps reassure the enquirer. It would also be expected that the proposed works, if they result in increased woodland cover will actively conserve the local pearl mussel and salmonid populations. This is by providing woody and other debris that will eventually fall in the river and increase habitat diversity. But also important shade that will mitigate potentially damaging temperature peaks within the river or burns.

Best wishes,
Iain

Iain Sime | Freshwater & Wetlands Advice Manager | he/him/his

NatureScot | Great Glen House, Leachkin Road, Inverness, IV3 8NW | m: [redacted]

nature.scot | @nature_scot | *Scotland's Nature Agency* | *Buidheann Nàdair na h-Alba*

From: Tamara Lawton <Tamara.Lawton@nature.scot>

Sent: 06 January 2021 16:51
To: Iain Sime <Iain.Sime@nature.scot>
Subject: FW: Eisgh Brachaidh FWPMs and Proposed Fencing

Hi Iain, happy new year (I guess…☺)
just a heads up as I see from your calendar you are in today only this week!

This email below has come in regarding the Eisg Brachaidh fence proposal. I know we previously briefly chatted about the potential for fences to affect pearl mussels and you were pretty sure that we did not consider this an issue. However, I am going to request formal advice from you next week to cover this issue – although I do not have the final proposed fence line as yet – it will be close to the [redacted] at points but will likely have less contact with the watershed for the [redacted].
It would be useful to also weigh up the benefits of more woodland cover?

Happy to chat next week if that would help.

[redacted]

Cheers,
Tamara

From: [redacted]@gmail.com>
Sent: 23 December 2020 16:10
To: Tamara Lawton <Tamara.Lawton@nature.scot>
Subject: Eisgh Brachaidh FWPMs and Proposed Fencing

Dear Tamara

I attach a copy of an email I sent to the Woodland Trust copied to Forestry Scotland and Jimmy Hyslop at Nat Scot

I understand that you would have to approve the proposed fencing re the SSSI at Eisgh Brachaidh. I write because I am concerned that due consideration is not being given to possible effects of the Copper based preservative and galvanised Zinc from the proposed fence on the Pearl Mussels in the [redacted] and the [redacted]. As you know FWPMs are particularly sensitive to pollutants and although I cannot find any direct literature re the possible effects I believe that the known leachability of Zn and Cu compounds from fencing should sound alarms when such a large amount of fencing close to sensitive water sources is proposed. I think that the tracking by deer along the fence line is particularly relevant in this case as it will disturb peat with trace metals bound to it which will owing to the very steep banks involved readily wash into the rivers. FWPMs are a lot rarer and more fragile than the habitat that this fence is supposed to be protecting; the precautionary principle should apply and the ground should be kept free of contaminants.

Thank you for your time
kind regards [redacted]

ref "Leaching of copper from wood treated with copper based preservatives" Mika Humar Marko Petric Franc Pohleven
"Leaching of Wood Preservative Components & their Mobility in the Environment, Summary of Pertinent Lit" Stan Lebow US Dept Agriculture

My email to [redacted] at the Woodland Trust;

Dear [redacted]

I write in response to your update to the community regarding your proposals for Eisgh Brachaidh.

Whilst nothing I say will divert you and your partners from this blinkered view of the solutions to the "problems" at Eisgh Brachaidh say it I must.

To suggest that [redacted] 3rd option of increasing the deer cull across the landscape has no funding for the next 20-30 years is disingenuous in the extreme. Deer management in the area has reduced the density to 5/ sqK without funding and is a result of the ongoing estate management that local deer groups have done and will continue to do at no cost to the tax payer unlike the grandiose schemes that you preside over. There is no obvious funding for the fence over that period.

The water courses each side of Eisgh Brachaidh, the [redacted], the [redacted] and the [redacted] are important for freshwater pearl mussels. These filter feeders are *very* susceptible to trace elements in the water. There are 3 factors in your project that could endanger this most precarious of species.
1 The 12 miles of fence will involve 18 metric tons of galvanised wire being put into a wet acidic environment, most of it alongside water. That is 1.1 metric tons of Zinc. Zinc is very toxic to fish but especially FWPMs. Trace metals bind to organic particles and these when washed into the river will be taken in by filter feeders.
2 The Tanalith used in preserving the wooden posts is a copper compound. Tests show that these leach out into the environment, rapidly at first but continuously thereafter for the life of the post. Again these copper compounds will bind to organic particles in the peat and be washed into rivers. Tracking and erosion on the outside (and often inside) of deer fencing caused by deer walking along the fence will mobilise the contaminated peat and allow it to wash into the water courses where it will be consumed by the mussels.
3 The proposal includes some additional planting of trees and other species. If these are fertilised on planting the eutrophication of the catchment will be lethal to FWPMs which are very sensitive to nitrate and phosphate levels.

Can you categorically state that the placement of such large quantities of toxic materials in an acidic and sensitive environment will have NO effect on the invertebrate community of the catchment. Environmental history is littered with cases of damage and species loss caused by well intentioned but ill advised activities. The precautionary principle should apply. A salmon farming company recently pulled plans to build a fish farm off Eisgh Brachaidh precisely because they couldn't guarantee there would be no effect on the pearl mussels in the [redacted].
It would be a tragic irony if in your unwarranted attempts to cultivate common species of trees you decimated or wiped out a truly fragile community of another species. Be assured that if the pearl mussels disappear from the area the blame will be levelled at you.

There are so many reasons why the defiling of the landscape with a monstrous fence should not go ahead but I truly believe that poisoning the landscape with so much man made material is very relevant.

Yours sincerely

[redacted]

From: Tamara Lawton
To: [redacted]@gmail.com"
Cc: Jimmy Hyslop
Subject: RE: Eisg Brachaidh FWPMs and Proposed Fencing
Date: 22 January 2021 16:34:00

Dear [redacted], many thanks for your email.

Please be assured that all relevant issues are taken into account when we carry out appraisals of developments that could have an effect on a protected area's special features.

In this case we note that you have concerns with regard to the freshwater pearl mussels. You state that there is little/no known info on the susceptibility of pearl mussels to metals. We summarised the state of knowledge back in 2005, which described the decreasing order of toxicity in metals as being Cu>Cd>Zn and Ni. So, you are correct in describing pearl mussels as being susceptible to Copper and Zinc. However, we can categorically advise that the erection of fencing will pose no contaminant risk to the pearl mussels. Both ourselves, and other organisations across Europe, routinely erect fencing for conservation projects for the species. In a wire fence, with standard posts, there is simply insufficient leaching of metals to pose a risk to pearl mussels or other components of the water environment. As an example, on the east of Scotland, pearl mussels successfully recruit in in a river which receives cooling water discharges from distilleries who operate copper stills with slightly elevated copper concentrations compared to background levels. More relevant to this case, there is a watercourse in the Hebrides where restructuring of the woodland, which includes considerable fencing has resulted in the population now recovering and starting to recruit for the first time in decades. This is just one example where fencing, and improved riparian management, is benefiting the conservation of pearl mussels and salmonids.

You also raise the issue of trampling from stock around the fence. This could locally increase silt or fine sediment discharge but, again, this would not be expected to have an impact other than at a very local level where any track created by animals crossed the watercourse. A well-designed fence line and river crossing(s) can mitigate against this minor local risk.

With regard to the potential eutrophication, we have previously reviewed this with Forest Research and evidence from several catchments has demonstrated that hand application of rock phosphate within riparian areas does not have any impact on the phosphorus concentration in the watercourse and therefore poses no risk to pearl mussels.

If increased woodland cover results from the fencing proposal as expected then this would have a beneficial effect on the freshwater pearl mussels and the wider ecology of the river including wild salmonids, their host species, through higher inputs of woody and other debris in to the system. As well as enhancing habitat diversity within the river itself, riparian woodland will also help to maintain water quality and flow as well as providing shade which will help to mitigate potentially damaging temperature peaks within the river or burns.

Finally, I would like to emphasise that unfortunately freshwater pearl mussels are still at great risk from poaching with several examples in the locality of rivers being targeted and mussel populations decimated. We therefore take extra care that the locations on Inverpolly SAC do not become more well known, and ask others to do the same, so any reference to them in public

should be generalised with no rivers named.

I hope this letter reassures you that the proposal will not have an adverse effect on the freshwater pearl mussels in the rivers and burns in this area.

Kind regards
Tamara

Cc Jimmy Hyslop

From: [redacted]@gmail.com>
Sent: 23 December 2020 16:10
To: Tamara Lawton <Tamara.Lawton@nature.scot>
Subject: Eisgh Brachaidh FWPMs and Proposed Fencing

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Thank you for your time
kind regards [redacted]
ref "Leaching of copper from wood treated with copper based preservatives" Mika Humar Marko Petric Franc Pohleven
"Leaching of Wood Preservative Components & their Mobility in the Environment, Summary of Pertinent Lit" Stan Lebow US Dept Agriculture

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To suggest that [redacted] 3rd option of increasing the deer cull across the landscape has no funding for the next 20-30 years is disingenuous in the extreme. Deer management in the area has reduced the density to 5/ sqK without funding and is a result of the ongoing estate management that local deer groups have done and will continue to do at no cost to the tax payer unlike the grandiose schemes that you preside over. There is no obvious funding for the fence over that period.

The water courses each side of Eisgh Brachaidh, the [redacted], the [redacted] and the [redacted] are important for freshwater pearl mussels. These filter feeders are *very* susceptible to trace elements in the water. There are 3 factors in your project that could endanger this most precarious of species.
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Can you categorically state that the placement of such large quantities of toxic materials in an acidic and sensitive environment will have NO effect on the invertebrate community of the catchment. Environmental history is littered with cases of damage and species loss caused by well intentioned but ill advised activities. The precautionary principle should apply. A salmon farming company recently pulled plans to build a fish farm off Eisgh Brachaidh precisely because they couldn't guarantee there would be no effect on the pearl mussels in the [redacted].
It would be a tragic irony if in your unwarranted attempts to cultivate common species of trees you decimated or wiped out a truly fragile community of another species. Be assured that if the pearl mussels disappear from the area the blame will be levelled at you.

There are so many reasons why the defiling of the landscape with a monstrous fence should not go ahead but I truly believe that poisoning the landscape with so much man made material is very relevant.

Yours sincerely
[redacted]

From: [redacted]
To: Tamara Lawton
Cc: Sinclair Coghill
Subject: Eisg Brachhaidh SSSI consent information
Date: 24 February 2021 09:27:35
Attachments: image049223.gif
image560462.gif
image034357.gif
image300510.gif
image777483.gif
Eisg Breachaidh SSSI consent Updated 090221.docx
SSSI designated habitat analysis 180221.xlsx

Hi Tamara

[redacted] was including the SSSI consent information along with the rest of the material going to SF for the EIA determination. We've updated it as above and would be grateful if you could give it a look over. I think we have everything down there now including the monitoring plans. The map at the end is being swapped for a larger scale showing the actual surveyed fence route.

Many thanks

[redacted]

[redacted]
Senior Outreach Adviser
Telephone: [redacted]

Kempton Way, Grantham, Lincolnshire, NG31 6LL
0330 333 3300
www.woodlandtrust.org.uk

Stand Up For Trees

EISG BRACHAIDH RESTORATION PROJECT

PROJECT SUMMARY

Eisg Brachaidh Estate in the Sutherland has biodiversity conservation as its primary objective. It is a partner in the Coigach and Assynt Living Landscape project which will manage this biodiversity project.

With habitat restoration at the land-scape scale, the aim is to re-establish the richness, diversity and connectivity, of healthy self-sustaining native species and communities. At 2,000 ha it has oligotrophic lochs, rivers and streams amongst low-lying hills, an estuary, extensive coastline and nearshore islands. It was previously part of the Inverpolly National Nature Reserve (1961-2004), it remains an important part of the Inverpolly SSSI and SAC, the Inverpolly, Loch Urigill & Nearby Lochs SPA, the Assynt – Coigach National Scenic Area (NSA) and is classed as a wild area. The surviving woodland (250-300ha including sparse remnants) is a Plantlife Important Plant Area in addition to its SAC status and is a focus area for the Saving Scotland's Rainforest Project.

Some of the important features on Eisg Brachaidh include western acidic oak woodland, wet heath, dry heaths, blanket bog, upland assemblage and upland birch woodland, otter, black throated diver, red throated diver, breeding heron and fresh water pearl mussel. The woodland elements are currently in unfavourable condition and the wet heath habitats assessed as unfavourable recovering. Small area of dry heath and montane scree which are less susceptible to overgrazing damage could be classed as in favourable condition. Effectively reducing and mitigating the effects of excessive grazing and trampling by high deer numbers is by far the most important factor for biodiversity conservation and habitat restoration on Eisg Brachaidh.

After many years of trying to find a solution to the deer grazing levels it has been concluded that the only way to protect this valuable habitat against further loss is to fence the estate boundary against Deer, and then reduce the deer numbers within the estate to around 1 deer per square kilometre. Currently information would suggest that the number of deer rise seasonally to well above 5 deer per square kilometre (2016 helicopter count and information from NatureScot).

The proposed fence line (see map) is approximately 17.5 Km in length and has to closely follow the estate boundary for legal reasons. It is proposed to start at the point by Poll Loisgann to Loch Buine Mhor and fenced into the loch. The fence resumes on the far side and again follows the boundary up to Fionn Loch then down the Kirkaig River on the south side and out along the coast to opposite Sgeir Mhor. The fencing work will commence in autumn 2020 and remain unclosed for the winter to allow the normal overwintering deer to access. The fence will then be closed at the end of winter and a cull carried out within the fence to achieve the desired 1-2 deer per square kilometre level. Indications are that this will involve the culling of around 80 animals.

The reduction in deer grazing will allow existing regeneration to come away and expand in a natural way giving dynamic ecotones with the open heathland, and boost the woodland tree numbers and age structure making it more resilient into the future. It is proposed to maintain the cattle grazing at its current level of around 30 animals seasonally grazed over the whole area to ensure a low level mixed grazing regime. Herbivore impacts will be actively monitored on a regular basis running from the start of the works into the future to allow the deer numbers to be managed at a sustainable level with the cattle grazing and achieve the project aims.

Over decades and longer the woodlands have become less diverse and some species that would have been present are now found in very low numbers. It is planned to enrich by small scale planting within some of the existing native woodland remnant areas with these species: aspen, oak,

holly, alder, wych elm, bird cherry, guelder rose, juniper and willows (grey, goat and eared), dog rose and honeysuckle. Trees will be sourced from seed as close as possible to Eisg Brachaidh and it is hoped to get them from the local tree nursery at Little Assynt only 10 miles away.

Reduced grazing will also allow the re-establishment of woodland flora and shrubby understorey species critical to a fully functioning woodland ecosystem

Of course Eisg Brachaidh is about more than just woodland and wooded habitats will . The other designated habitats will also benefit from reduced deer numbers. From various reports on the SSSI blanket bog in some areas is currently suffering from trampling damage and lowering deer density will help alleviate this. Wet heath areas may have been modified by trampling and grazing away from dry heath and blanket bog vegetation and will be able to find its own natural level. Dry heath in some areas will recover from overgrazing and in some find a natural ecotone with woodland regeneration as the remnants expand in response to lower grazing pressure.

Depending on the micro siting of the fence there will be some narrow strips of land that will receive increased deer trampling as they track around the fence. However the lochside sections will be held back from the shorelines to minimise the effect of this wherever possible.

More trees on the ground produce more nutrients and food flowing into watercourses and the system of highly oligotrophic lochs. This can only benefit aquatic invertebrates, fish and those that feed on them: otters and divers especially.

See attached table for the likely impact on designated habitats, species, schedule 1 birds and European protected species thought present, collated from a variety of reports, communication and other sources.

HOW:

The fencing works will be to FGS specification to exclude both red deer and sika deer: 1.8m high deer fence constructed from wooden posts, 3 horizontal wires with a bottom net of C8/80/15 rylock and top net of C6/90/30 rylock, or alternatively a single net HT13/190/15. All underbuilt where necessary with water gates constructed for burn crossings. Included are full height management access gates and self- closing pedestrian gates at strategic points to be finalised after community consultations. .A new deer grid will be installed on the public road leading south out of the estate by Loch Buine Mhor.

Fencing materials will be transported to a suitable bundling site off the public road from Lochinver tbc. From there most materials are to be helicopter distributed lifted to the fence line in 100m length bundles. Any roadside sections and nearby will be distributed 4x4 pick-ups and trailers/appropriate ATV's where there is sufficient access.

Personnel movement around site will be using a Hagglund BV206, Argo or 4x4 quads as appropriate and access allows. Access will avoid soft ground, bog areas and stick to drier ground to reduce impact, and they will make use of the existing argo tracks currently used only by the stalker. All refuelling will be done off site at an agreed fuelling locations away from watercourses and other sensitive locations. Fuel spill kits will be available for use.

A cattle grid will be constructed on the southern boundary within the profile of the public road with precautions for fuelling etc as above.

Culling of deer numbers will be undertaken by suitably qualified stalkers working in association with the estate.

Enrichment planting will be on hand mounds, planted with slow release fertiliser added and then tubed with short tubes (0.6m). To be planted with minor species, mostly sessile oak, aspen, holly, alder and grey, eared and goat willows. Locally sourced plants will be used from Little Assynt Tree Nursery and supplied as transplants. This planting will be carried out by a combination of volunteer planting days and contractors.

Location of the enrichment planting to be at the locations indicated in the enclosed maps with a red cross.

WHEN:

It is planned to start the fencing works in April/May 2021. The fence will be left unclosed for the following winter period and closed during March 2022 after when a cull of the deer population inside the fence will be carried out. Enrichment planting will be carried out in February/ March 2022.

MONITORING

An HIA will be carried out upon fencing to act as a baseline picture for the project progress using the Woodland Grazing toolbox methodology.

Monitoring of both the impact of herbivores on the SSSI habitat condition, woodland condition and regeneration, and the effect of the enclosure on local deer movements will be carried out regularly.

This monitoring will be in two parts. Firstly condition monitoring of the woodland, dry heath, wet heath and blanket bog designated habitats will tie into the existing plot structure within the Eisg Brachaidh section of the Inverpolly SSSI condition monitoring, to provide supplementary data between assessments. It is proposed to survey on a maximum 3 year cycle using a representative subset of the SSSI monitoring plots. Habitats which are likely to respond faster to the exclusion of heavy grazing i.e. woodland and dry heath will be initially monitored more regularly. The methodology will follow NatureScot best practice to make it compatible with the existing SSSI condition monitoring.

Secondly to provide additional evidence and act as the driver for deer management within the enclosure post fencing, it is proposed to monitor the herbivore impact of deer and cattle grazing on an annual basis by using the Woodland Grazing Toolbox methodology developed by Scottish Forestry and NatureScot in a series of representative plots in the woodland areas aiming to give good coverage of the remnant areas. The initial cull post fence closure will aim for a deer density of around 1 per sq. km thereafter, the continued HIA will show direction of travel for the woodland restoration and give an indication of the use of the area by both deer and cattle, and feed into ongoing deer culling levels. Ongoing culling levels will be set to maintain progress in woodland regeneration and habitat improvement. It is intended to expand this on the northern boundary along the Kirkaig River in association with Inver and Kirkaig Fisheries to gauge the effects of the fencing on deer movements outside the fence to feed into any necessary mitigation measures for deer pressure around Inverkirkaig.

Deer numbers will be will be informally monitored by a variety of methods, particularly in the area to the west of Loch Buine Mhor for deer ingress over the loch and outwith the fence to the north of the Kirkaig River and around Inverkirkaig so that appropriate mitigation can be carried out. (See mitigation plan enclosed)

In addition to the habitat and browsing monitoring it is proposed to survey use of the area by birds and mammals on an ongoing basis as part of a larger study into the benefits of the habitat

restoration work. It is hoped that the area could be used as a study resource for other groups studying the effects of woodland restoration and improvement.

All survey and monitoring data gathered will be made publicly available and shared with NatureScot.

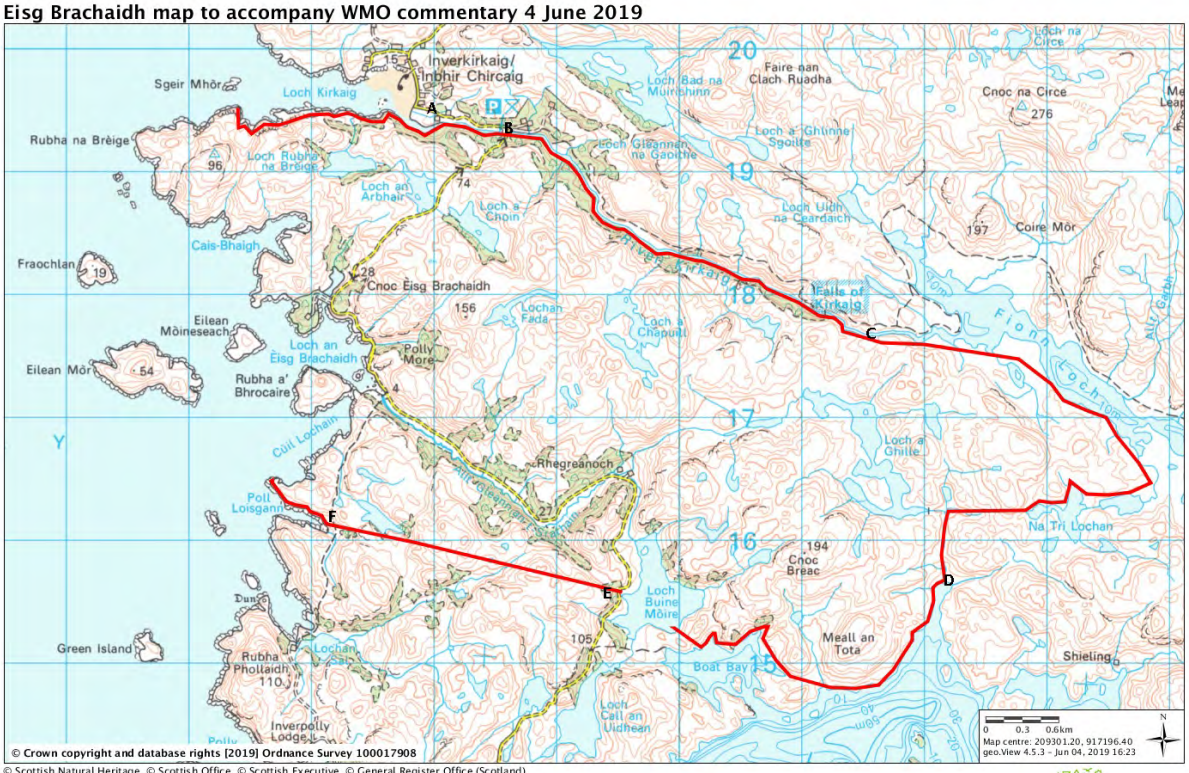
ONGOING MANAGEMENT OVER NEXT 10 YEARS

It is important that the deer levels are maintained around 1 deer per square Km at least until the grazing levels within the enclosure have an opportunity to show positive progress. After that we can assess whether the levels are too high/low and appropriate culling levels will be set. Ongoing monitoring as described above and appropriate subsequent culling is key for the foreseeable future.

The enrichment planting plots will be maintained and beaten up for the first three years to gain establishment.

Fence checking, old fence removal and appropriate maintenance will take place on an ongoing basis.

Eisg Brachaidh map to accompany WMO commentary 4 June 2019



Scottish Natural Heritage
Dualchas Nàdair na h-Alba
nature.scot

SSSI/SAC feature	Assessed condition	Effect of EB proposals	Notes
Upland Birchwood	Unfavourable declining		very positive effect due to reducing deer browsing levels
Blanket bog	Unfavourable recovering		positive effect of reducing trampling and grazing through deer reduction
Oligotrophic Lochs	Favourable maintained		largely neutral effect although food and nutrients for invertebrates and fish should be improved in the long term from increase in riparian and lochside tree cover.
Beetle (Otiorhynchus auropunctatus)			not found on EB..limited to Stac Polly
Breeding bird assemblage	Favourable maintained		improvment over the longer term through habitat improvement and improvements in food/nutrient status from increased general tree cover.
Upland assemblage	Unfavourable recovering		see individual listed habitats below, improvements through reduction in deer grazing
Moths	Favourable maintained		
Norwegian mugwort (Artemisia norvegica)	Favourable maintained		not present on EB
Geological ..Quaternary of Scotland	Favourable maintained		
Black-throated diver (Gavia arctica)- breeding	Favourable maintained		Breeding off site [redacted]. Fencing deemed unlikely to disrupt flight paths and food levels for fish will be improved by an increase in riparian and lochside tree cover.
Western acidic oak woodland	Unfavourable declining		Limited patches of oak thoughout the EB woodlands but the reduction in deer numberswill benefit the recoovery of oak and associated species. Enrichment planting will aid an increase in this habitat.
Dry Heaths	Unfavourable no change		Although reduction in deer grazing pressure will improve the quality of dry heath habitat over the majority of the area, some areas in the vicinity of existing woodland will be lost as a new transitional habitat and ecotones develop between open land and woodland.
Wet heathland with cross-leaved heath	favourable recovered		The proposals will have a neutral effect on the majority of wet heath. Some areas with modified vegetation due to trampling and grazing will over the longer term revert back to dry heath and bog. Heath vegetation will in the longer term be made more robust.
Plants in crevices on acid rocks	Favourable maintained		Relic populations of plants, tall herbs, limited to rock crevices will be made more robust through the reduction of grazing pressure
Acidic Scree	unfavourable recovering		Not on EB, limited to montane areas
Alpine/sub alpine heaths	unfavourable recovering		Not on EB, limited to montane areas
Very wet mires often identified by an unstable 'quaking' surface	Favourable maintained		Generally neutral affect although there may be some reduction in trampling.
Depressions on peat substrates	Unfavourable recovering		A minor habitat on the fringes of blanket bogs. Generally neutral effect but reduction in deer trampling will reduce any trampling and erosion effects present.
Acid peat-stained lakes and ponds	Favourable maintained		Neutral effect
Clear-water lakes or lochs with aquatic vegetation and poor to moderate nutrient levels	Favourable maintained		An increase in riparian and lochside tree cover and a recovery in ground vegetation will lead to a greater food supply for the benefit of invertebrates and fish populations.
Freshwater pearl mussel (Margaritifera margaritifera)	Unfavourable declining		The reduction of deer grazing will make riparian tree cover essential for the cooling of flowing streams and food supply more robust in the face of long term decline.
Otter (Lutra lutra)	Favourable maintained		The current distribution of otter activity appears to be strongly linked to areas of waterside habitat with more tree cover. An increase in this can only have a positive effect on sheltered sites for breeding holts and a long term increase in food driven by greater tree cover leading to increases in invertebrate and fish numbers.

From: [redacted]
To: Tamara Lawton
Subject: RE: Eisg Brachaidh and mussels
Date: 18 March 2021 10:55:04
Attachments: EISG BRACHAIDH SSSI Consent Updated 090221.docx
SSSI designated habitat analysis 180221.xlsx
EB EIA screening opinion Map Overview - March 2021.pdf

Thank you very much for this email and I'm really sorry I didn't reply, I thought I had.

Everything is being submitted today to SF, been trying for 2 days, but my wifi (or lack of) has been challenging, but it seems to be going over now. I believe [redacted] has sent you the SSSI consent information, but that you needed the map, which was still being checked by the EB Family and lawyers until last Friday, so please find attached relevant information and overview map. The 1:10k maps are split into 5 and are 5MB each. I can send them to you though if it would be useful?

[redacted].

Speak soon,

[redacted]

From: Tamara Lawton <Tamara.Lawton@nature.scot>
Sent: 26 January 2021 14:01
To: [redacted]@coigach-assynt.org>
Subject: Eisg Brachaidh and mussels

Hi [redacted], hope all well with you and home schooling still going swimmingly!!

I think the last time we spoke you mentioned you had also been alerted to some local concern over pearl mussels. For your information - here is the text from the email I sent out to the person concerned.

Please be assured that all relevant issues are taken into account when we carry out appraisals of developments that could have an effect on a protected area's special features.
In this case we note that you have concerns with regard to the freshwater pearl mussels.
You state that there is little/no known info on the susceptibility of pearl mussels to metals. We summarised the state of knowledge back in 2005*, which described the decreasing order of toxicity in metals as being Cu>Cd>Zn and Ni. So, you are correct in describing pearl mussels as being susceptible to Copper and Zinc. However, we can categorically advise that the erection of fencing will pose no contaminant risk to the pearl mussels. Both ourselves, and other organisations across Europe, routinely erect fencing for conservation projects for the species. In a wire fence, with standard posts, there is simply insufficient leaching of metals to pose a risk to pearl mussels or other components of the water environment. As an example, on the east of Scotland, pearl mussels successfully recruit in in a river which receives cooling water discharges from distilleries who operate copper stills with slightly elevated copper concentrations compared to background levels. More relevant to this case, there is a watercourse in the Hebrides where*

restructuring of the woodland, which includes considerable fencing has resulted in the population now recovering and starting to recruit for the first time in decades. This is just one example where fencing, and improved riparian management, is benefiting the conservation of pearl mussels and salmonids.
You also raise the issue of trampling from stock around the fence. This could locally increase silt or fine sediment discharge but, again, this would not be expected to have an impact other than at a very local level where any track created by animals crossed the watercourse. A well-designed fence line and river crossing(s) can mitigate against this minor local risk.
With regard to the potential eutrophication, we have previously reviewed this with Forest Research and evidence from several catchments has demonstrated that hand application of rock phosphate within riparian areas does not have any impact on the phosphorus concentration in the watercourse and therefore poses no risk to pearl mussels.
If increased woodland cover results from the fencing proposal as expected then this would have a beneficial effect on the freshwater pearl mussels and the wider ecology of the river including wild salmonids, their host species, through higher inputs of woody and other debris in to the system. As well as enhancing habitat diversity within the river itself, riparian woodland will also help to maintain water quality and flow as well as providing shade which will help to mitigate potentially damaging temperature peaks within the river or burns.
Finally, I would like to emphasise that unfortunately freshwater pearl mussels are still at great risk from poaching with several examples in the locality of rivers being targeted and mussel populations decimated. We therefore take extra care that the locations on Inverpolly SAC do not become more well known, and ask others to do the same, so any reference to them in public should be generalised with no rivers named.
I hope this letter reassures you that the proposal will not have an adverse effect on the freshwater pearl mussels in the rivers and burns in this area.

Cheers,
Tamara

Tamara Lawton | Area Officer, South Highland

NatureScot | 17 Pulteney Street , Ullapool, Wester Ross IV262UP| 01463 701605

17 Sràid Pholtanaidh, Ulapul, Ros an Iar, IV26 2UP

nature.scot | @nature_scot | *Scotland's Nature Agency* | *Buidheann Nàdair na h-Alba*

mearachd, cuiribh fios dhan manaidsear-siostaim no neach-sgrìobhaidh.

Thoiribh an aire airson adhbharan gnothaich, ‘s dòcha gun tèid sùil a chumail air puist-dealain a’ tighinn a-steach agus a’ dol a-mach bho NatureScot.

****

EISG BRACHAIDH RESTORATION PROJECT

PROJECT SUMMARY

Eisg Brachaidh Estate in the Sutherland has biodiversity conservation as its primary objective. It is a partner in the Coigach and Assynt Living Landscape (CALL) project, Woodland Trust manage the CALL Woodland aspect of this Living Landscape Project and as such will manage this biodiversity proposal.

With habitat restoration at the land-scape scale, the aim is to re-establish the richness, diversity and connectivity, of healthy self-sustaining native species and communities. At 2,000 ha it has oligotrophic lochs, rivers and streams amongst low-lying hills, an estuary, extensive coastline and nearshore islands. It was previously part of the Inverpolly National Nature Reserve (1961-2004), it remains an important part of the Inverpolly SSSI and SAC, the Inverpolly, Loch Urigill & Nearby Lochs SPA, the Assynt – Coigach National Scenic Area (NSA) and is classed as a wild area. The surviving woodland (250-300ha including sparse remnants) is a Plantlife Important Plant Area in addition to its SAC status and is a focus area for the Saving Scotland's Rainforest Project.

Some of the important features on Eisg Brachaidh include western acidic oak woodland, wet heath, dry heaths, blanket bog, upland assemblage and upland birch woodland, otter, black throated diver, red throated diver, breeding heron and freshwater pearl mussel. The woodland elements are currently in unfavourable condition and the wet heath habitats assessed as unfavourable recovering. Small area of dry heath and montane scree which are less susceptible to overgrazing damage could be classed as in favourable condition. Effectively reducing and mitigating the effects of excessive grazing and trampling by high deer numbers is by far the most important factor for biodiversity conservation and habitat restoration on Eisg Brachaidh.

After many years of trying to find a solution to the deer grazing levels it has been concluded that the only way to protect this valuable habitat against further loss is to fence the estate boundary against Deer, and then reduce the deer numbers within the estate to around 1 – 1.5 deer per square kilometre. Currently information would suggest that the number of deer rise seasonally to well above 5 deer per square kilometre (2016 helicopter count and information from NatureScot).

The proposed fence line (see appendix 8 for project maps) is approximately 17.5 Km in length and must closely follow the estate boundary for legal reasons. It is proposed to start at the point by Poll Loisgann to Loch Buine Moire and fenced into the loch. The fence resumes on the far side of Buine Moire and again follows the estate boundary up to Fionn Loch then down the Kirkaig River on the south side and out along the coast to the base of the coastal cliff.

The fencing work will commence in spring/summer 2021 (subject to Coronavirus restrictions) and remain unclosed for the winter to allow the normal overwintering deer to access. The fence will then be closed during winter and a cull carried out within the fence to achieve the desired 1-2 deer per square kilometre level. Indications are that this will involve the culling of around 80 animals.

The reduction in deer grazing will allow existing regeneration to come away and expand in a natural way giving dynamic ecotones with the open heathland, and boost the woodland tree numbers and age structure making it more resilient into the future. It is proposed to maintain the cattle grazing at its current level of around 30 animals seasonally grazed over the whole area to ensure a low-level mixed grazing regime. Herbivore impacts will be actively monitored on a regular basis running from the start of the works into the future to allow the deer numbers to be managed at a sustainable level with the cattle grazing and achieve the project aims.

Over decades and longer the woodlands have become less diverse and some species that would have been present are now found in very low numbers. It is planned to enrich by small scale planting within some of the existing native woodland remnant areas with these species: aspen, oak, holly, alder, wych elm, bird cherry, guelder rose, juniper and willows (grey, goat and eared), dog rose and honeysuckle. Trees will be sourced from seed as close as possible to Eisg Brachaidh and it is planned to get them from the local tree nursery at Little Assynt only 10 miles away.

Reduced grazing will also allow the re-establishment of woodland flora and shrubby understorey species critical to a fully functioning woodland ecosystem.

Of course, Eisg Brachaidh is about more than just woodland and wooded habitats. The other designated habitats will also benefit from reduced deer numbers. From various reports on the SSSI blanket bog in some areas is currently suffering from trampling damage and lowering deer density will help alleviate this. Wet heath areas may have been modified by trampling and grazing away from dry heath and blanket bog vegetation and will be able to find its own natural level. Dry heath in some areas will recover from overgrazing and in some find a natural ecotone with woodland regeneration as the remnants expand in response to lower grazing pressure.

Depending on the micro siting of the fence there may be some narrow strips of land (<5m) that will receive increased deer trampling as they track around the fence. However, the lochside sections will be held back from the shorelines, by on average 15m, to minimise the effect of this wherever possible: in particular around Loch Sionascaig and Fionn Loch. Setting the fence back along these shorelines will give a wider space for any displaced Deer to find a route to lower ground, without heavy trampling.

More trees on the ground produce more nutrients and food flowing into watercourses and the system of highly oligotrophic lochs. This can only benefit aquatic invertebrates, fish and those that feed on them: otters and divers especially.

See table in this appendix for the likely impact on designated habitats, species, schedule 1 birds and European protected species thought present, collated from a variety of reports, communication and other sources.

HOW:

The fencing works will be to FGS specification to exclude both red deer and sika deer: 1.8m high deer fence constructed from wooden posts, 3 horizontal wires with a bottom net of C8/80/15 rylock and top net of C6/90/30 rylock, or alternatively a single net HT13/190/15. All underbuilt where necessary with water gates constructed for burn crossings. Included are full height management access gates and self- closing pedestrian gates at strategic points to be finalised after community consultations. A new deer grid will be installed on the public road leading south out of the estate by Loch Buine Mhor.

Fencing materials will be transported to a suitable bundling site off the public road from Lochinver tbc. From there most materials are to be helicopter distributed lifted to the fence line in 100m length bundles. Any roadside sections and nearby will be distributed 4x4 pick-ups and trailers/appropriate ATV's where there is sufficient access.

Personnel movement around site will be using a Hagglund BV206, Argo or 4x4 quads as appropriate and access allows. Access will avoid soft ground, bog areas and stick to drier ground to reduce impact, and they will make use of the existing argo tracks currently used only by the stalker. All

refuelling will be done off site at agreed fuelling locations away from watercourses and other sensitive locations. Fuel spill kits will be available for use.

A cattle grid will be constructed on the southern boundary within the profile of the public road with precautions for fuelling etc as above.

Culling of deer numbers will be undertaken by suitably qualified stalkers working in association with the estate.

Enrichment planting will be on hand mounds, planted with slow release fertiliser added and then tubed with short tubes (0.6m). To be planted with minor species, mostly sessile oak, aspen, holly, alder and grey, eared and goat willows. Locally sourced plants will be used from Little Assynt Tree Nursery and supplied as transplants. This planting will be carried out by a combination of volunteer planting days and contractors.

Location of the enrichment planting to be at the locations indicated in on the maps in appendix 8.

WHEN:

It is planned to start the fencing works in May 2021. The fence will be left unclosed for the following winter period and closed during January 2022 after when a cull of the deer population inside the fence will be carried out. Enrichment planting will be carried out in February/ March 2022.

MONITORING

An HIA will be carried out upon fencing to act as a baseline picture for the project progress using the Woodland Grazing toolbox methodology.

Monitoring of both the impact of herbivores on the SSSI habitat condition, woodland condition and regeneration, and the effect of the enclosure on local deer movements will be carried out regularly.

This monitoring will be in two parts. Firstly, condition monitoring of the woodland, dry heath, wet heath and blanket bog designated habitats will tie into the existing plot structure within the Eisg Brachaidh section of the Inverpolly SSSI condition monitoring, to provide supplementary data between assessments. It is proposed to survey on a maximum 3 year cycle using a representative subset of the SSSI monitoring plots. Habitats which are likely to respond faster to the exclusion of heavy grazing i.e. woodland and dry heath will be initially monitored more regularly. The methodology will follow NatureScot best practice to make it compatible with the existing SSSI condition monitoring.

Secondly, to provide additional evidence and act as the driver for deer management within the enclosure post fencing, it is proposed to monitor the herbivore impact of deer and cattle grazing on an annual basis by using the Woodland Grazing Toolbox methodology developed by Scottish Forestry and NatureScot in a series of representative plots in the woodland areas aiming to give good coverage of the remnant areas. The initial cull post fence closure will aim for a deer density of around 1 per sq. km thereafter, the continued HIA will show direction of travel for the woodland restoration and give an indication of the use of the area by both deer and cattle, and feed into ongoing deer culling levels. Ongoing culling levels will be set to maintain progress in woodland regeneration and habitat improvement. It is hoped and has been offered (at the November 2020 deer mgmt sub-group meeting) to expand this on the northern boundary along the Kirkaig River in association with Inver and Kirkaig Fisheries to gauge the effects of the fencing on deer movements outside the fence to feed into any necessary mitigation measures for deer pressure around Inverkirkaig.

Deer numbers will be informally monitored by a variety of methods, particularly in the area to the west of Loch Buine Mhor for deer ingress over the loch and outwith the fence to the north of the Kirkaig River and around Inverkirkaig so that appropriate mitigation can be carried out. (See the Eisg Brachaidh Fencing Proposals Mitigation Plan enclosed)

In addition to the habitat and browsing monitoring it is proposed to survey use of the area by birds and mammals on an ongoing basis as part of a larger study into the benefits of the habitat restoration work. It is hoped that the area could be used as a study resource for other groups studying the effects of woodland restoration and improvement.

All survey and monitoring data gathered will be made publicly available and shared with NatureScot.

ONGOING MANAGEMENT OVER NEXT 10 YEARS

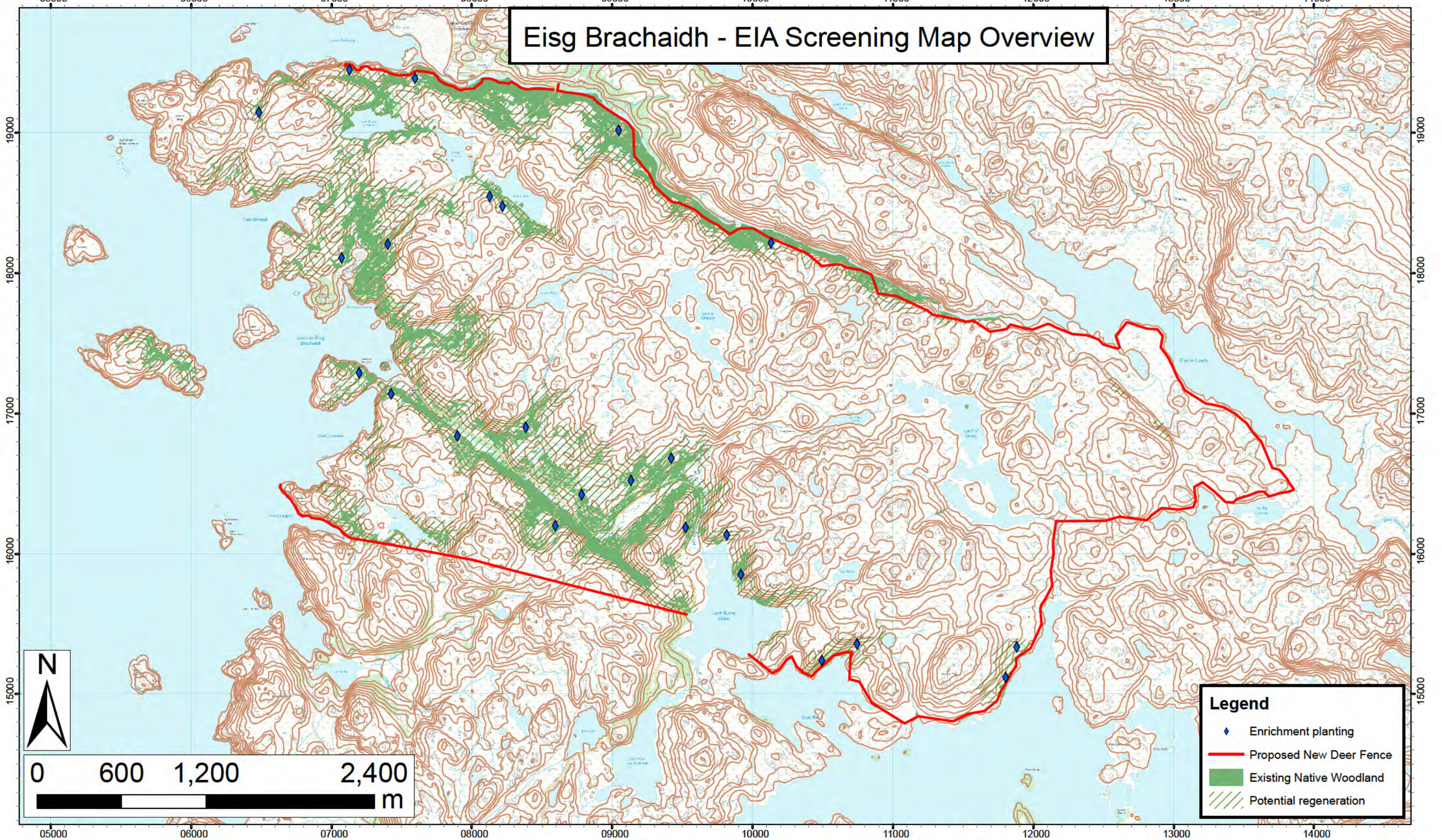
It is important that the deer levels are maintained around 1 deer per square Km at least until the grazing levels within the enclosure have an opportunity to show positive progress. After that we can assess whether the levels are too high/low and appropriate culling levels will be set. Ongoing monitoring as described above, and appropriate subsequent culling is key for the foreseeable future.

The enrichment planting plots will be maintained and beaten up for the first three years to gain establishment.

Fence checking and appropriate maintenance will take place on an ongoing basis.

SSSI/SAC feature	Assessed condition	Effect of EB proposals	Notes
			positive effect
			neutral effect
			negative effect
Upland Birchwood	Unfavourable declining		very positive effect due to reducing deer browsing levels
Blanket bog	Unfavourable recovering		positive effect of reducing trampling and grazing through deer reduction
Oligotrophic Lochs	Favourable maintained		largely neutral effect although food and nutrients for invertebrates and fish should be improved in the long term from increase in riparian and lochside tree cover.
Beetle (Otiorhynchus auropunctatus)			not found on EB..limited to Stac Polly
Breeding bird assemblage	Favourable maintained		improvment over the longer term through habitat improvement and improvements in food/nutrient status from increased general tree cover.
Upland assemblage	Unfavourable recovering		see individual listed habitats below, improvements through reduction in deer grazing
Moths	Favourable maintained		
Norwegian mugwort (Artemisia norvegica)	Favourable maintained		not present on EB
Geological ..Quaternary of Scotland	Favourable maintained		
Black-throated diver (Gavia arctica)- breeding	Favourable maintained		Breeding off site [redacted]. Fencing deemed unlikely to disrupt flight paths and food levels for fish will be improved by an increase in riparian and lochside tree cover.
Western acidic oak woodland	Unfavourable declining		Limited patches of oak thoughout the EB woodlands but the reduction in deer numberswill benefit the recoovery of oak and associated species. Enrichment planting will aid an increase in this habitat.
Dry Heaths	Unfavourable no change		Although reduction in deer grazing pressure will improve the quality of dry heath habitat over the majority of the area, some areas in the vicinity of existing woodland will be lost as a new transitional habitat and ecotones develop between open land and woodland.
Wet heathland with cross-leaved heath	favourable recovered		The proposals will have a neutral effect on the majority of wet heath. Some areas with modified vegetation due to trampling and grazing will over the longer term revert back to dry heath and bog. Heath vegetation will in the longer term be made more robust.
Plants in crevices on acid rocks	Favourable maintained		Relic populations of plants, tall herbs, limited to rock crevices will be made more robust through the reduction of grazing pressure
Acidic Scree	unfavourable recovering		Not on EB, limited to montane areas
Alpine/sub alpine heaths	unfavourable recovering		Not on EB, limited to montane areas
Very wet mires often identified by an unstable 'quaking' surface	Favourable maintained		Generally neutral affect although there may be some reduction in trampling.
Depressions on peat substrates	Unfavourable recovering		A minor habitat on the fringes of blanket bogs. Generally neutral effect but reduction in deer trampling will reduce any trampling and erosion effects present.
Acid peat-stained lakes and ponds	Favourable maintained		Neutral effect
Clear-water lakes or lochs with aquatic vegetation and poor to moderate nutrient levels	Favourable maintained		An increase in riparian and lochside tree cover and a recovery in ground vegetation will lead to a greater food supply for the benefit of invertebrates and fish populations.
Freshwater pearl mussel (Margaritifera margaritifera)	Unfavourable declining		The reduction of deer grazing will make riparian tree cover essential for the cooling of flowing streams and food supply more robust in the face of long term decline.
Otter (Lutra lutra)	Favourable maintained		The current distribution of otter activity appears to be strongly linked to areas of waterside habitat with more tree cover. An increase in this can only have a positive effect on sheltered sites for breeding holts and a long term increase in food driven by greater tree cover leading to increases in invertebrate and fish numbers.

Eisg Brachaidh - EIA Screening Map Overview



Scottish Wildlife Trust
Harbourside House
110 Commercial Street
Edinburgh
EH6 6NF

Central Grid Reference: NC 100170
Scale:1:25,000

Coigach & Assynt
LIVING LANDSCAPE

From: [redacted]
To: Tamara Lawton
Subject: FW: Eisg Brachaidh
Date: 28 April 2021 06:17:32
Attachments: image001.jpg
image007226.gif
image440772.gif
image593912.gif
image631707.gif
image345415.gif
Eisg Brachaidh EIA Screening Opinion 030902379.pdf

From: [redacted]@woodlandtrust.org.uk>
Sent: 28 April 2021 06:12
To: [redacted]@coigach-assynt org>
Subject: FW: Eisg Brachaidh

CAUTION: This email originated from outside The Scottish Wildlife Trust Do not click links nor open attachments unless you know the source to be genuine (please check with the sender independently if required)

[redacted]
Woodland Manager - Coigach & Assynt Living Landscapes Partnership (CALLP)
Telephone: [redacted]
Kemplon Way, Grantham, Lincolnshire, NG31 6LL
0330 333 3300
www.woodlandtrust.org.uk

Stand Up For Trees

From: [redacted]@forestry.gov.scot <[redacted]@forestry.gov.scot> **On Behalf Of** highland.cons@forestry.gov.scot
Sent: 27 April 2021 07:54
To [redacted]@woodlandtrust.org.uk>
Subject: Eisg Brachaidh

Dear [redacted]

Ref. 030902379 - Eisg Brachaidh Estate.

Please find attached our Screening Opinion in response to the request made under Regulation 12 of The Forestry (Environmental Impact Assessment) (Scotland) Regulations 2017.

I understand John Risby has already spoken with you regarding our decision and has informed you that the work proposed will require EIA consent. The reasons for our decision are set out in the attached letter.

Should you wish to discuss the content of the screening opinion or have any queries regarding the scoping process and how to proceed, please do not hesitate to get in touch.

To ensure your enquiry is dealt with promptly, could you please include highland cons@forestry.gov.scot in any direct correspondence.

Kind Regards

[redacted]

Scottish Forestry
Highland and Islands Conservancy
Fodderty Way | Dingwall | IV15 9XB
highland.cons@forestry.gov.scot
Office – [redacted]
Direct – [redacted]

Website: forestry.gov.scot
Twitter: @scotforestry

Scottish Forestry is the Scottish Government agency responsible for forestry policy, support and regulation. In light of the ongoing public health advice to reduce unnecessary social contact during the outbreak of Covid-19, we have activated our Business Continuity Plan. More information can be found on our website. https://forestry.gov.scot/covid-19

Scottish Forestry
Coilltearachd na h-Alba

Highland & Islands Conservancy
'Woodlands', Fodderty Way
Dingwall, Ross-Shire, IV15 9XB
Tel: 0300 067 6950
highland.cons@forestry.gov.scot
Conservator: John Risby

[redacted]
Woodland Manager
Coigach-Assynt Living Landscape Project
1 Inverkirkaig
Lochinver
IV27 4LR
By email – [redacted]@woodlandtrust.org.uk

Our Reference – 030902379

26 April 2021

Dear [redacted]

The Forestry (Environmental Impact Assessment) (Scotland) Regulations 2017

I refer to your application at Eisg Brachaidh Estate, by Ullapool for, 250 hectares of afforestation.

We are required to provide a Screening Opinion under the above Regulations as to whether the work you are proposing is an EIA project and will require EIA consent.

I can confirm that the work you propose **will** require EIA consent.

Description of Forestry Project and Location
Although the maps provide a broad indication of where natural-regeneration is anticipated, it is not clear from these or from the supporting information how each area relates to non-woodland protected habitats and how they have been assessed as being suitable for woodland creation.

The supporting information does not clearly demonstrate the requirement to enclose the entire Eisg Brachaidh Estate, non-woodland habitats have been assessed as being in favourable maintained or unfavourable recovering condition.

The role of the Section 7 agreement and Coigach – South Assynt sub area Deer Management Plan in delivering designated features into favourable condition is not discussed. Consequently it is not clear the extent to which these management agreements are being successful or failing to meet their objectives.

The description of relevant aspects of the current state of the environment are incomplete. The mammal survey is an 'interim report' largely based on earlier surveys and by its own declaration fieldwork is "by no means complete". A recent bird survey has not been undertaken, instead the supporting information includes a summary based on personal accounts that are not supported by data.

The screening request concludes "Fencing the estate will avoid any negative impact on surrounding owner's deer stalking activity", though the evidence to support this statement has not been provided. To set this proposal in context we would expect an assessment of how the proposal relates to the management objectives of all neighbouring landholdings.

There remains uncertainty as to whether the project can successfully achieve its objective of woodland regeneration in the presence of livestock and wild deer, as no method to control their abundance or distribution in areas identified for natural regeneration is proposed.

The screening request does not consider the potential cumulative impacts with other existing, consented or planned deer fencing that may be relevant to this proposal.

Description and Mitigation of Likely Significant Effects
The supporting information does not provide the level of detail required to determine the significance of impacts on SSSI and SAC features, both within and out with the proposed enclosure. Appendix 2 provides brief notes of an expected outcome within the enclosure, though it is unclear what methodology was used to arrive at these conclusions.

There remains uncertainty over the likely impacts on deer welfare and behaviour over time and therefore the efficacy of the mitigation strategy in minimising impacts to an acceptable level, both within the enclosure and over the whole range. Appendix 3 confirms "Deer movements in the area are difficult to predict with any certainty. The area may be one of the through routes for deer into and through Inverpolly Estate." The capacity to disperse is an essential part of the lifecycle of wild deer, identifying the likely significant effects and subsequent mitigation on deer is reliant on a predictive approach that requires detailed knowledge of likely deer movement patterns.

The screening request concludes the proposal will not inhibit public access, but does not provide the rationale for this assumption. Favoured routes have not been identified on the access map and local and other relevant stakeholders views have yet to be invited on the location of access gates.

Although a competent piece of work, the visual appraisal does not include mention or assessment of any infrastructure that may be required to both construct, maintain and in future dismantle and remove the enclosure, and any short, medium and long term visual effects of those stages of construction and dismantling. Additionally, the potential visual effects created as a consequence of the vegetation within the enclosure having the grazing pressures removed has not been considered. From the more elevated and distant viewpoints, this differential vegetation pattern may become visible in the wider landscape, despite the actual enclosure being too far distant or screened from view.

Consultation
The outcome of discussions held with NatureScot, including comments and advice with regards to deer and protected sites are not captured within the screening request. Neither are the opinions and issues raised by those who do not support the proposal.

Changes to deer management on one landholding can have significant effects on others. The extent of these effects are unclear, as the views of the tenant farmer, Deer Management Group, all neighbouring properties and local community regarding this project are not fully captured within the screening request and supporting information.

Conclusion
In reaching our decision we have taken into account the information you have provided with the request for a screening opinion and other existing environmental information for the area.

We considered the size and design of the forestry project could have complex, long-term, or irreversible impacts on the environmental sensitivity of the area, with particular regard to its biodiversity and landscape. We have therefore concluded that expert and detailed analysis of those impacts would be relevant to whether or not the proposal should be allowed.

Although the visual appraisal makes a valuable contribution to our understanding of how the proposed deer fence may be seen in the landscape, as Eisg Brachaidh estate is within a National Scenic Area and in part within and adjacent to a Wild Land Area, we are of the opinion the potential effects of the deer fence proposals on the landscape should also be assessed and a more in-depth Landscape and Visual Impact Assessment is required.

Although a useful tool in managing wild deer, fencing is rarely appropriate as a long-term fix particularly on a landscape scale. We need to be certain that this project is an effective means of deer management that both safeguards the designated site woodland features and the sustainable management of wild deer. The screening request and supporting information does not clearly demonstrate this.

The screening request considered alternative solutions were shown to be unviable, but did not provide detail on alternate designs or explain why they were shown to be unworkable. The EIA process will provide further opportunity for an analysis of all reasonable alternatives taking into account the environmental effects.

Next Steps
It is recommended that you now contact us to request a Scoping Opinion, which will provide the information that is to be included in your EIA Report.

We must consult statutory consultees during the scoping process, so we recommend you arrange an online Scoping Meeting and invite Scottish Forestry and all of the necessary organisations and individuals that can contribute information or that may be affected by your EIA forestry project.

We advise this includes:

- NatureScot
- Highland Council
- Scottish Environment Protection Agency
- Historic Environment Scotland
- West Sutherland Deer Management Group
- Assynt Foundation
- Inver and Kirkaig Fishings estate
- Inverpolly estate
- Scottish Wildlife Trust
- Assynt Community Council
- Coigach Community Council
- Ramblers Scotland
- Mountaineering Scotland
- Scottish Canoe Association
- RSPB Scotland

If you do not hold a Scoping Meeting we will still require the following information to consult independently:

- A description of the location of your forestry project
- A map identifying the land
- A description of the nature and purpose of your forestry project and its likely effects on the environment
- Any other information that you wish to provide, e.g. any avoidance, off-setting or mitigation measures.

Guidance on EIA for forestry projects can be found at:
https://forestry.gov.scot/support-regulations/environmental-impact-assessment

Yours sincerely

[redacted]

[redacted]
For Conservator

From: [redacted]
To: Tamara Lawton
Subject: FW: Eisg Brachaidh
Date: 05 May 2021 12:46:36
Attachments: image915999.gif
image170465.gif
image546828.gif
image285029.gif
image816299.gif

FYI

From: [redacted]@woodlandtrust.org.uk>
Sent: 04 May 2021 17:52
To: Jimmy.Hyslop@nature.scot; Katherine Leys <Katherine.Leys@nature.scot>
Cc: [redacted]@coigach-assynt.org>; [redacted]@woodlandtrust.org.uk>; [redacted]@woodlandtrust.org.uk>
Subject: Eisg Brachaidh

Hello Jimmy

We were disappointed to hear that Scottish Forestry have called a "focussed" EIA. We are just planning our way forward with this hence our request for a catch up to brief you and get your thoughts and input.
Regards
[redacted]

[redacted]
Senior Outreach Adviser
Mobile: [redacted]
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Stand Up For Trees

From: scotland@woodlandtrust.org.uk
To: scotland@woodlandtrust.org.uk
Subject: EIA required for Eisg Brachaidh proposal
Date: 14 May 2021 17:52:59

Just to keep you informed, Scottish Forestry have requested Woodland Trust Scotland undertake an Environmental Impact Assessment regarding the Eisg Brachaidh woodland restoration proposal.

A key step on this process is holding a scoping meeting, the details of which will be announced in the coming weeks.

Meantime, any questions regarding the Eisg Brachaidh project should be sent to scotland@woodlandtrust.org.uk

Thanks

Eisg Brachaidh project team

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Stand up for trees