

Consent Number 032900741

THE ENVIRONMENTAL IMPACT ASSESSMENT (FORESTRY) (SCOTLAND) REGULATIONS 1999

DETERMINATION OF AN APPLICATION UNDER REGULATION 4 OF THE REGULATIONS FOR CONSENT TO CARRY OUT A RELEVANT PROJECT

Background and Statement of Reasons Supporting the Decision to Grant Consent

1 PURPOSE

To explain the background to Forestry Commission Scotland's (FCS) decision to grant consent, subject to conditions, to the above application. This will include the main reasons for granting consent and considerations on which the decision is based and describe, where necessary, the main measures that have been agreed to avoid and reduce (including through any enhancements) the major potential adverse effects of the project. The applicant is Stakis Forestry LLP, the owner of Halkshill & Blairpark Farm and his agents, who led on the application for consent, are Tilhill Forestry

2 ENVIRONMENTAL STATEMENT

The Environmental Statement (ES), additional environmental information (addenda) and annexes referred to in this document are the final versions of each document named & dated as follows:

ES Addenda

Response to statutory public consultation process of July 2016	February 2018
Halkshill & Blair Park Addendum 1 Landscape and Visual Impacts	February 2018
Addendum 2: Revised proposals for Public Access	February 2018

Addendum 3: Addressing ES consultation objections from SEPA	February 2018
Revised Non-Technical Summary	February 2018
Revised Description of Proposal	February 2018
Revised Iterative Design Process	February 2018
Environmental Statement (Version 3)	May 2016
EIA Scoping Meeting Minutes	September 2013
FCS Scoping Opinion	January 2014
FCS ES Version 1 review response	May 2015
FCS ES Version 2 review response	December 2015
Technical Annex A Archaeology	November 2013
Technical Annex B Landscape & Visual Impact Assessment(Superseded)	March 2016
Technical Annex C Iterative Design Process (Superseded)	March 2016
Technical Annex E Ecological Site Classification	August 2014
Technical Annex F Breeding Bird Survey	August 2013
Technical Annex G Hydrology	September 2015
Technical Annex H Protected Species	April 2014
Technical Annex I Management of Woodland Edge	May 2016
Technical Annex J Appropriate Assessment	June 2014
Maps (Some Superseded)	May 2016

3 SITE AND OWNERSHIP

Halkshill and Blair Park is situated on the western edge of Clyde Muirshiel Regional Park (CMRP) to the east of the town of Largs in North Ayrshire. The proposal occupies land made of up two farms – Halkshill located immediately to the east and above Largs and Blair Park to the south of Halkshill and to the

north of the A760 Largs to Kilbirnie road. In total the ownership of the two farms extends to 1396 hectares (ha) of which 501ha is proposed for afforestation.

The land comprises large areas of acid grassland, marshy grassland and blanket bog and is divided by two main water courses (Gogo and Greeto Waters) that flow within deeply incised gorges from the uplands through Largs itself out to the Firth of Clyde. The site lies within the North Ayrshire Special Landscape Area and the eastern march adjoins the Renfrewshire Heights Special Protection Area for which hen harrier is the main qualifying interest. The easternmost section of the proposal is situated within an Area of Wild Land.

Above Largs the western margin of the site to the west of the Greeto is formed by a very prominent escarpment that is characterised by detailed topography and crags of various sizes including one known as the Cauld Rocks. This area and other sections of the lower slopes are visible from the town itself with areas of higher elevation forming the fringes of the high moorland being more visible from more distant viewing points such as the island of Cumbrae. Existing woodland within the site is comprised of an area of broadleaved woodland along the Gogo Water immediately to the east of the town and otherwise limited to a few conifer shelterbelts and remnant native woodland within the glens.

The site is of great importance to the local community within Largs with the core path route that runs to the Greeto Bridge situated at the confluence of the Gogo and Greeto of particular value for local recreation and which has significant historic and cultural importance to the town. Other highly valued locations within the site include the Cauld Rocks and an area known as Douglas Park to the south of the Gogo.

3.1 Proposal for Woodland Creation and Associated Works

The proposal is to create 501ha of new woodland excluding internal open ground containing mainly productive conifers (63% Sitka spruce or Sitka spruce

Lodgepole pine mixture 5%), with elements of Scots pine (5%), Norway spruce (2%), native woodland (21%), Lodgepole pine (low density forest edge) (2%) and amenity conifers consisting of Scots pine & Norway spruce(1%). Associated with the establishment and protection operations is the construction of 4590 metres (m) of new forest roads and tracks using stone sourced from 12 quarry pits on the site. Background information on the proposal is set out in Chapter 3 (Site Description) and Chapter 4 (Description of the proposals) of the main ES and the updated and revised Non-Technical Summary and Project Description.

Table 1 below sets out the constituent parts of the final woodland creation proposal. There is approximately 30ha of existing woodland which is mixed conifer species and large areas of open space outside the woodland creation proposal as well as internal open ground within the woodland creation.

Table 1. Constituent Parts of Woodland Creation Proposal

Species	Area (ha)	% of Woodland Creation
Norway Spruce	10.24	2.042%
Lodgepole Pine	11.4	2.273%
Native Broadleaves	106.02	21.143%
Scots Pine	22.85	4.557%
Sitka Spruce	317.63	63.342%
Sitka Spruce/Lodgepole Pine*	26.84	5.352%
Amenity Conifers (SP/NS)	6.47	1.290%
Total	501.45	100%

*Sitka spruce/Lodgepole pine 50:50 mixture

3.2 Basis of the Environmental Impact Assessment

The Environmental Impact Assessment (Forestry) (Scotland) Regulations 1999 (*"the EIA Regulations"*) prohibit the carrying out of any work or operations in relation to a "relevant project" unless consent has been obtained from FCS. This

proposal constitutes an afforestation and forest road works under paragraph 3 of the EIA (Forestry) Regulations.

The EIA process provides the framework for assessing whether the project will have a significant impact on the environment. The decision on whether or not to grant consent takes account of the environmental impacts of a proposed project and takes into consideration the environmental information, representations received in relation to the application and any other material consideration. These include the assessment of direct and indirect impacts of the project on the environmental factors listed in Schedule 4 of the EIA (Forestry) Regulations 1999:

- i) Human beings, fauna and flora
- ii) Soil, water, air, climate and the landscape
- iii) Material assets and the cultural heritage
- iv) The interaction between the factors mentioned in (i) to (iii) above.

In assessing the proposals impact on these factors, we considered the factors both individually and the interactions between them.

The Statement of Reasons will outline:

- The main reasons and consideration on which the decision is based.
- A description, where necessary, of the main measures to avoid and reduce (including through any enhancements) the potential major adverse effects of the project.
- The conditions which are attached to the approval.

3.3 Background to the project requiring consent

FCS first considered proposals for afforestation at Halkshill and Blair Park in May 2013 when the EIA determination enquiry form was received. The applicant initially proposed establishing new woodland of around 930ha, comprising 580ha

of Sitka spruce, 70ha Douglas fir and 280ha of broadleaves, open space and montane woodland. The proposal was screened in June 2013 and the applicant was advised of FCS Opinion that consent was required. The reasons for requiring consent were set out in a letter from FCS to the applicant on 18th June 2013. A summary timeline of this EIA case can be seen in table 2 below.

Table 2. FCS Timeline of Halkshill/Blairpark EIA Case

Date	Milestone/Action
14-May-13	EIA Determination Application submitted by Tilhill
18-Jun-13	FCS Screening Opinion given, consent required
30-Jan-14	FCS Scoping Opinion letter issued
27-Feb-15	ES 1st draft submitted
08-May-15	FCS Response letter on ES 1st draft
18-Sep-15	ES 2nd draft ES received
07-Dec-15	FCS Response letter on ES 2nd draft
05-May-16	Copy of draft V3 received
03-Jun-16	Version 3 ES formally accepted for public consultation
22-Jun-16	Public Notice of statutory 28 day consultation period commencement published
19-Jul-16	statutory 28 day period ends
09-Sep-16	FCS response sent to applicant – FCS requested further information
27-Nov-17	Draft addenda to address outstanding residual impacts forwarded to FCS for comment
22-Dec-17	FCS response to draft addenda/additional environmental information
31-Jan-18	FCS further clarification letter to Dec 22 response on draft addenda/additional information
19-Feb-18	FCS receive revised ES addenda v2
21-Mar-18	Statutory 28 day consultation period commences
18-Apr-18	Statutory 28 day consultation period ends

The primary reasons for requiring consent and requesting an ES were the potential impact of the proposal on:

- Natural Heritage
- Archaeology
- Bird Interest
- Deep Peat
- Landscape

- Public Roads
- Public Access

The reasons for requiring consent are set out in full below.

The EIA scoping meeting held on 30th September 2013 and a scoping opinion was sent to the applicant on 6th December 2013. The scoping opinion was subsequently updated on two occasions at the request of the applicant to ensure clarity in relation to the assessment of the impacts on the town as a tourist resource. The scoping opinion was finally agreed on 30th January 2014.

The ES (Version 1) was received by FCS on 27th February 2015. Following review FCS issued a request to the applicant for more information on 8th May 2015 and subsequently met with the applicant's representatives to further explain the need for this additional information. The ES (Version 2) was received on 18th September 2015 and following advice from statutory consultees FCS issued a further request for more information on 7th December 2015. Version 3 of the ES was received by FCS on 5th May 2016 and the applicant was notified of the intention to formally consult on this document on 3rd June 2016.

Public consultation on the ES commenced on Thursday 23rd June 2016 during which time in excess of 250 responses were received by FCS including several hundred representations from members of the public, members of the Westminster and Scottish Parliaments and Non-Governmental Organisations. Following this on the 9th of September 2016 FCS issued a letter outlining their reasons why there was insufficient information and outlined the significant adverse impacts that required further mitigation. The receptors identified were: Local Landscape Character, Wild Land, visual resource, Core path access and the Greeto bridge area, Marshy Grassland and Blanket Bog.

On the 19th February 2018 FCS received additional environmental information in the form of addenda to the ES Version 3 with the intention that this information would address the outstanding residual impacts likely to result from the project.

The applicant was notified of the intention to formally consult on this document on the 8th March 2018 and public consultation on the ES & Addenda commenced on the 21st March 2018.

3.4 Reasons for project requiring consent

The main reasons for the project requiring consent were (from FCS screening opinion letter dated 18th June 2013):

3.4.1 Natural Heritage

The proposal is adjacent to the Renfrewshire Heights SPA for which the qualifying interest is hen harrier. The effect the proposal may have on this species along with local populations of species such as otter, badger and water vole is unclear at this stage. Additionally, potential effects on existing natural habitats within the proposal area have not yet been assessed.

3.4.2 Archaeology

The location and extent of archaeological features that may be affected by the proposal is not clear at this stage.

3.4.3 Bird Interest

Although survey work has been undertaken over some of the proposal area in the recent past the effect the proposal may have on bird interests has not been fully established.

3.4.4 Deep Peat

Some areas of deep peat have been identified within the proposal area. The effects the afforestation proposals are likely to have on peat soils have not been assessed.

3.4.5 Landscape

The proposal area sits within the CMRP and Special Landscape Area and is currently very open with little tree cover, especially on the higher ground within the proposal area. The introduction of woodland via planting will have an immediate impact on the landscape and in the longer term the area will have a much more wooded appearance. The short and longer term effect of this afforestation on the landscape has not been assessed. The proposal also includes for the construction of a significant length of forest road. The effect of this road construction on the landscape of the area has not been assessed.

3.4.6 Public Roads

There is potential for damage to the local public road infrastructure and disruption to users from the work associated with the establishment of the woodland and in particular with the eventual harvesting of the crop.

3.4.7 Public Access

The effect of the proposals on the use of the area by members of the public has not been fully assessed.

The reasons for the project requiring consent were explored in further detail through the scoping process, which in tandem with the screening opinion framed the issues that the applicant needed to address in the ES. A summary of the topics highlighted by FCS scoping opinion is outlined below.

Table 3. FCS Scoping Opinion

Issue	Summary
Designated Sites	The ES should assess the effect of the proposals on the SPA qualifying interest. The ES should also assess the potential effect of increased population of predators and consider appropriate mitigation.
Breeding Birds	Surveys for all breeding birds should be conducted (Brown & Shepherd methodology), an assessment made of the importance of the site in this

	regards and the ES should evaluate potential impacts on species identified within the site.
Protected Species	The approach to surveying and reporting on protected species described in the application should be followed. SNH input should be sought in mitigation & licensing matters when survey results are available.
Local Nature Conservation Site	The ES should assess the impact of afforestation on the local nature conservation sites and this should be based on the reasons for the designation.
Archaeology	The location and extent of archaeological features was not clear. Open ground should be maintained around Castle Hill Fort. The introduction of woodland will allow natural regeneration within the open area and programme of maintenance may be required to ensure natural regeneration is controlled. A professional archaeological contractor should be appointed to undertake a walkover survey of all of the proposed planting area in order to identify any previously unrecorded archaeological material/features that may be present and the scheme adapted to ensure protection. The ES needs to address mitigation for archaeology for both woodland establishment and later management.
Deep Peat	Areas of deep peat should be mapped and left unplanted with appropriate buffers put in place for afforestation in close proximity to peat. The ES should investigate the potential for peatland restoration and develop a plan for implementation
Vegetation	The approach to surveying and mapping of vegetation described within the application should be followed. In addition it is recommended that target notes are used to record and particularly interesting habitats or rare species that may be encountered. The ES should consider whether these more significant habitats (e.g. species rich flushes) require more active management in order to maintain the nature conservation interest.
Landscape	The proposal area sits within the Clyde Muirshiel Regional Park SLA and is currently very open with little tree cover. A Landscape and Visual Impact Assessment should be undertaken for this project. Nine viewpoints were identified for this purpose: Cumbræ ferry slip, Largs prom near RNLI, Auchenmaid Drive, Holehouse Road, Castle Hill, Knock Hill, Brisbane Glen Road, Rowantree Hill, Muirhead Reservoir. The proposal also includes the construction of a significant length of forest road. The effect of this road construction on the landscape should be assessed as part of the LVIA.

Water & Soils	The ES should reflect fully the issues highlighted by SEPA & Scottish Water in their scoping responses. The proposal falls within part of the catchment for three Scottish Water abstraction sources and may effect water quality & water yield and consequently the ES should address this and also whether a critical load assessment is required.
Utilities	The ES should consider the forest design implications of overhead powerlines present within the site. Design should incorporate an area of smaller non-productive native species within 10-30m of an overhead powerline. There are some Scottish Water assets in the area that will require protection.
Public Access	The ES should fully understand the nature and extent of the current use of the site and assess the potential impacts that the proposals may have on this use. The design of the woodland should be considered at a micro-scale in areas that are likely to be frequently visited by the public and the ES should consider how the proposals can enhance the experience of the visitor.
Local Communities	The ES should consider the impact of the proposals on the community of Largs with particular regard to its status as popular tourist destination. This evaluation should extend to both social and economic impacts.
Agricultural Land	The ES should assess the impact of the change in land use from upland agriculture to forestry on the local agricultural industry with reference to Scottish Government Policy
Wild Land	During the development of the proposals the Waterhead Moor region of Muirshiel was added to Core Areas of Wild Land. As the development of the ES will take place whilst Scottish Government is in the process of developing/confirming its approach to wild land further guidance from SNH should be sought as to the nature of any assessments that may be required.
Ayrshire & Arran Forestry and Woodland Strategy	The ES should take account of this guidance and in particular the spatial priorities for woodland expansion identified for the Renfrewshire Heights regional character area.

4 NATIONAL POLICY CONTEXT RELATING TO HALKSHILL AND BLAIR PARK

National and regional policy documents provide context for considering applications under the EIA regulations. They help to inform the decision by setting down the contemporary standards that should be applied when determining whether or not an environmental impact is likely to be significant, what mitigation should be carried out to minimise the impact and to assess the value of any compensatory benefits.

4.1 Renfrewshire Heights Special Protection Area (SPA) and Site of Special Scientific Interest (SSSI)

The north-eastern boundary of the Halkshill and Blair Park site has a march with the SPA and SSSI, although the nearest tree planting within the proposal is some distance away to the west. The SPA qualifies under Article 4.1 of the EU Birds Directive by regularly supporting a breeding population of the annex 1 species hen harrier with an average of 10 breeding females annually (2% of the GB population). The coincident SSSI was also notified for breeding hen harrier. Hen harrier has 'unfavourable' conservation status across Europe and is also a protected species under Schedules 1 and 1A of the Wildlife and Countryside Act 1981.

4.2 The Scottish Forestry Strategy¹

The Scottish Government's Scottish Forestry Strategy was published in 2006 and sets out government priorities for forestry in Scotland. The vision of the strategy is:

"By the second half of this century, people are benefiting widely from Scotland's trees, woodlands and forests, actively engaging with and looking after them for the use and enjoyment of generations to come. The forestry resource has become a central part of our culture, economy and environment."

¹ <http://scotland.forestry.gov.uk/supporting/strategy-policy-guidance/forestry-strategy>

Seven key themes to help achieve the vision are identified:

- *Using forestry, and adapting forestry practices, to help reduce the impact of climate change and help Scotland adapt to its changing climate.*
- *Getting the most from Scotland's increasing and sustainable timber resource.*
- *Strengthening forestry through business development to underpin sustainable forest management and support economic growth and employment across Scotland.*
- *Improving the quality of life and well-being of people by supporting community development across Scotland.*
- *Making access to, and enjoyment of, woodlands easier for everyone - to help improve physical and mental health in Scotland.*
- *Protecting the environmental quality of our natural resources (water, soil and air), contributing to and improving our scenery, and helping to make the most of our unique historic environment.*
- *Helping to restore, maintain and enhance Scotland's biodiversity, and increasing awareness and enjoyment of it.*

4.3 New woodland creation

The creation of new woodlands is a key Scottish Government policy and the Scottish Government's target is to create 100,000 hectares of new woodland between 2012 and 2022, equivalent to an average of 10,000 hectares per year over the 10 year period, increasing to 15,000ha per annum by 2025. This should be done in a way that is integrated with other land-based objectives.

This target forms an important part of the Scottish Government's Low Carbon Scotland: Meeting our Emissions Reduction Targets 2013-2027: The Second Report on Proposals and Policies (RPP2)².

² <http://www.gov.scot/Topics/Environment/climatechange/scotlands-action/lowcarbon/meetingthetargets>

4.4 UK Forestry Standard

The UK Forestry Standard³ (4th edition, 2017) (UKFS) sets out the Scottish Government's (and also for other governments in the UK) approach to sustainable forest management. The UKFS outlines national and international requirements (either legal or best practice) and guidelines and is supported by relevant policy and information documents.

The UKFS provides the benchmark for judging the performance of the forestry sector in Scotland and defines the standards and requirements, providing a basis for regulation and monitoring. The UKFS together with other supporting documents provide useful guidance for all the matters considered in this ES.

There is a requirement that any woodland creation supported through FCS Forestry Grant Scheme, complies with the UK Forestry Standard.

4.5 Wild Land

Although not a designation, areas of wild land are recognised as a nationally important asset in the National Planning Framework and Scottish Planning Policy, comprising the most extensive areas of high wildness in Scotland. The Halkhill and Blair Park proposals, as described in the ES (Version 3), are situated outside and part inside the south-west boundary of the Waterhead Moor - Muirshiel Wild Land Area. This wild land area covers in excess of 5000ha within the CMRP.

Although wild land areas are not exclusion zones for trees, proposals within or adjacent to wild land should recognise the sensitivities and special qualities of these areas, as promoted in the UKFS Forests and Landscape guideline, GFPR1: *Forests should be designed and managed to take account of the landscape context.*

³ <http://www.forestry.gov.uk/ukfs>

5 Regional policy context relating to Halkshill and Blair Park

There are a number of regional policies which are relevant to the assessment of this application.

5.1 Ayrshire and Arran Forestry and Woodland Strategy

Published in 2014 this document provides supplementary planning guidance to North Ayrshire Council. The strategy provides a clear indication of the vision for how the woodland resource and forest industry in Ayrshire should develop over the next 40 years. Overall, the strategy aims to ensure that the region's woodland cover is at least maintained at current levels (c.76 700ha or 23% of land area), rising gradually to around a quarter of the region's land area. The strategy provides spatial guidance aimed at guiding opportunities for woodland expansion through indicative opportunities mapping. This is achieved through a categorisation of un-forested land outside the urban area into preferred, potential, sensitive and unsuitable and which gives a general impression of an areas suitability or otherwise for woodland expansion. The area defined by the Halkshill and Blair Park proposal is split between potential and unsuitable land. Further to this, the strategy indicates the potential for the expansion of different types of woodland and assesses this within the context of a spatial framework based on broad landscape types. The Halkshill and Blair Park proposal lies within the Renfrew Heights Landscape Character Area. Within this area the strategy identifies the priorities for woodland expansion to be focussed on the expansion of the native woodland resource, the potential for riparian woodland to contribute to sustainable flood management and the small scale expansion of softwood forests on the lower slopes. It notes however, that topography, climatic and soil conditions and landscape values within these areas are likely to restrict the type and scale of woodland that will be considered appropriate.

5.2 North Ayrshire Council Local Development Plan

Adopted in May 2014 the local plan contains a number of policies relevant to the Halkshill and Blair Park proposal. Local Plan Policy ENV7 relating to the Special Landscape Area requires that development within this area should be

appropriate in design and scale to the surroundings and have no direct, indirect or cumulative impact on the landscape character and/or the natural or built heritage resource. It should also have no unacceptable impacts on the visual amenity of the area. ENV7 also requires that any development should be sited so as to avoid adverse impacts on wild land.

6 SUMMARY OF CONSULTATION RESPONSES (1ST CONSULTATION JUNE/JULY 2016)

A public consultation on the ES (Version 3) began on 23rd June 2016. Public notices were placed in the Greenock Telegraph and the Largs and Millport News. The ES was made publicly available at Largs Library and the FCS - Central Scotland Conservancy Office at Hamilton. Tilhill attended a meeting organised by Largs Community Council and made presentational information available for the public to view and discuss with them in a drop in style event. A full hard copy was provided to the following:

- Scottish Natural Heritage (SNH)
- Scottish Environment Protection Agency (SEPA)
- North Ayrshire Council (NAC)
- Largs Community Council (LCC)

The key ES documents were made available electronically through the FCS public website and full electronic copies of the ES and annexes provided on request.

Over 250 responses were received to the public consultation on the ES with the key issues raised detailed below:

6.1 North Ayrshire Council (NAC)

The Council provided a detailed analysis of the proposals as they relate to NAC Local Plan and wider community concerns. In this the Council raised a significant number of issues from their perspective and additionally provided a summary of their recommendations along with an alternative woodland design that from their perspective if adopted would address many of the concerns raised in their response. The Council concluded that it would not object to the project provided that their detailed recommendations were adopted in any consent:

6.1.1 Local Plan Policy ENV1 (Development in the Countryside)

The Council commented that the proposal has aims that are broadly compatible with the policy but noted that it is necessary to consider the impacts against policies ENV7 (Special Landscape Areas (SLAs)) and ENV9 (Nature Conservation).

6.1.2 Local Plan Policy ENV7 (Special Landscape Areas)

The Council commented that forestry is one of a few exception land uses that are supported within SLAs, the principle of forestry as a land use being supported with the SLA and CMRP. It noted however that proposals are to have no unacceptable impacts on landscape character and visual amenity of the area and the natural and built heritage resource. The Council noted significant reservations that the proposals would introduce a land use change that would detract from the landscape qualities of the SLA and Regional Park. It noted particular concern over the siting and density of Sitka spruce planting on and behind the escarpment overlooking Largs, it being a key focal point within the setting of the town. The Council also expressed concern over the Sitka spruce planting on the higher hilltops which characterise the SLA and Regional Park. As part of its representation the Council offered up and requested consideration of an alternative woodland design that they stated if implemented would help to resolve their concerns.

6.1.3 Local Plan Policy ENV9 (Nature Conservation)

The Council made reference to the Wild Land area and asked that reference is made to SNH for comment. It also referenced the two Local Nature Conservation Sites (LNCS) and requested further comment is sought from Scottish Wildlife Trust. Finally in relation to this policy the Council recommended seeking the views of CMRP to establish whether the proposals were consistent with the aims and objectives of Park management and if not to investigate appropriate measures for mitigation.

6.1.4 Local Plan Policy ENV12 (Development of Open space)

The Council commented that this policy has a presumption against proposals which would have an unacceptable impact on the recreational and amenity value of designated open space. Whilst not affecting open space per se the Council cited the importance of the Cauld Rocks and the surrounding area for rock climbing and other outdoor pursuits and highlighted their concerns over the impact the proposals might have on this area. In their response the Council requested that this matter is given detailed consideration in consultation with The Mountaineering Council of Scotland and the NAC Access Officer and suggested a 'tree free' buffer within the area of the Cauld Rocks.

6.1.5 Local Plan Policy HE4 (scheduled ancient monuments and archaeological sites)

The Council expressed concern that the planting of Norway spruce to the north and east of the castle Hill fort (scheduled monument) would have an adverse effect on the setting and views from the fort. The Council requested that no planting occurs where the height of the trees when mature may have the potential to restrict views from this fort and other prominent hilltops.

6.1.6 Local Plan Policy P14 (Core Path Network)

The Council request a 'tree free' buffer along the core path from Largs to the Greeto Bridge extending to a minimum of 20m to either side of the path and also

requested that access arrangements are agreed with the Council in advance and that this be conditioned in any consent.

6.1.7 Local Plan Policy P18 (Drainage, SUDS and Flooding)

The Council commented that this policy has a presumption against proposals that cannot demonstrably avoid a material increase in flooding. The Council asked that detailed consideration be given to community concerns raised in terms of impacts on flood risk, water quality and fish referring to SEPA as the competent authority for offering advice in this regard.

6.1.8 Ayrshire and Arran Forestry and Woodland Strategy 2014

The Council noted that attention to the preceding comments would help to ensure the final scheme is more in line with the aspirations of this strategy.

6.1.9 Ayrshire Landscape Character Assessment

Raised beach: The Council noted concerns in relation to the impact the proposals would have on the raised beach which is visible as a level shelf backed by the steep and craggy escarpment representing the former cliff line. The Council reiterated its concerns over the planting of Sitka spruce on the escarpment and hilltops and in close proximity to the Cauld Rocks. Again the Council referred to their alternative design concept that would assist in mitigating these predicted effects.

North Ayrshire Hills: On the basis that the series of rounded hills and moors are largely devoid of woodland the Council requested that new planting is largely confined to deep sided valleys avoiding proximity to crags and rounded hilltops. This would help to retain the vistas out from the site and also retain the contribution of the open hilltops in the wider landscape. The Council also requested more detail in relation to the design, finishing and scale of the deer fencing in order that it takes a more informed view of the potential landscape and public access impacts.

6.2 Scottish Natural Heritage (SNH)

In its response SNH restricted its representations to the two features of national natural heritage importance namely the Renfrewshire Heights Special Protection Area (SPA) and the Waterhead Moor – Muirshiel area of Wild Land.

6.2.1 Renfrewshire Heights SPA

SNH commented that they agree with the assessment of the impacts and mitigation presented in the ES and request that any consent granted is conditioned to secure the stated mitigation throughout the operational life of the forest and in the event that the land changes ownership.

6.2.2 The Waterhead Moor – Muirshiel area of Wild Land

SNH expressed the view that the proposals described in the ES would result in a significant adverse impact on the perception of naturalness, remoteness and sense of sanctuary of the Wild land Area. SNH commented that these impacts could have been mitigated during the iterative design process by adjusting the design with a particular focus on those planting areas that fell within the Wild Land Area. Further to this summary, SNH provided detailed comment on the LVIA process undertaken as part of the ES. Their detailed assessment concluded that although there has been a change to the Wild Land Area baseline as a result of the access road construction linked to the construction of the hydro scheme, the Wild Land Area still retained its range of wild qualities. Further to this SNH stated that if the proposal was given consent in its current form there will be a further reduction in the sense of wildness experienced within the Wild Land Area due to the nature of change proposed.

Their response concluded that the proposal as submitted would result in a significant adverse impact on the perception of naturalness, remoteness and sense of sanctuary and suggested appropriate mitigation would be to redesign proposals for planting within the Wild Land Area. Redesign would include a

reduction in the extent of productive conifer species and its associated management within the Wild Land Area – specifically along the Greeto water and around Feuside Hill and Irish Law. SNH indicated in their response that the replacement of commercial conifer species with native woodland could enhance the strength of wildness within the glens despite modifying the current qualities experienced.

6.3 Scottish Environment Protection Agency (SEPA)

6.3.1 Flood Risk

SEPA did not raise an objection on the grounds of flood risk. They did however recommend that NAC were consulted but stated that as site preparation will be in line with Forest and Water guidelines, flood risk and the risk of diffuse pollution would be adequately managed. SEPA made a comment on measures to reduce the future risk of flooding resultant from woody debris entering the watercourses. Although they are ideally seeking no planting on slopes in excess of 9 degrees, they were satisfied that the proposals as described in the ES will be adequate mitigation for flood risk overall.

6.3.2 Pollution prevention and environmental management

SEPA commented that they were satisfied with all aspects of the proposal as they relate to this issue provided forest and water guidelines are complied with.

6.3.3 Disruption to wetlands including Groundwater Dependant Terrestrial Ecosystems (GWDTE)

SEPA highlighted their concerns with regard to potential impacts on GWDTE in a communication to the developer dated 15th December 2015. They noted that their suggested methodology for assessing and mitigating GWDTE impacts were not reflected in the latest version of the ES (Version 3). On the basis that the ES contains insufficient information about the potential disruption to wetlands and GWDTE, SEPA sought to formally object to the proposal.

6.3.4 Disturbance and reuse of peat

SEPA also raised an objection to the proposals on the basis that the ES does not contain sufficient information relating to the disruption and re-use of peat. SEPA requested detailed mapping of peat depths overlaid with the proposed built elements in order to demonstrate how the development avoids deep peat soils and other sensitive receptors such as GWDTEs. SEPA also commented that in their view the ES failed to demonstrate that all new planting would avoid peat exceeding 50cm in depth or highlight outline measures to ensure that the hydrology of adjacent bog habit is not compromised.

6.3.5 Borrow pit reinstatement

SEPA noted that there was little information in the ES regarding borrow pit reinstatement. They commented that there was not enough information in relation to availability and type of fill material and where it would be sourced from. SEPA also objected on the grounds of lack of information.

6.4 Largs Community Council (LCC)

In their response LCC did not object to the principle of the proposal but requested that approval be conditional on amendments to the planting design being made. These included:

6.4.1 Landscape

A requirement that the native planting did not encroach on the Cauld Rocks and adjacent Crags and that the trees did not encroach onto the hill ridge as the views of this open ridge were greatly valued by residents and visitors to Largs.

6.4.2 Access and amenity

A requirement for a wide buffer zone along paths and trails with Sitka spruce replaced with native species beyond this buffer zone.

6.4.3 Fishing

That the impacts on fishing interests be more fully assessed.

6.4.4 Community benefit

That the potential for increased direct community benefit is more fully investigated

6.4.5 Other stakeholders

That the responses of other organisations such as Scottish Wildlife Trust and 'Save the Grotas' be addressed.

6.4.6 Employment

That the potential for employment is further considered.

6.5 Other organisations and responses from individuals

Representations from other organisations and individuals fell into two main groups – those that made observations, comments, recommendations or objections to aspects of the proposals such as the forest design (148 representations) and those that were concerned that the timescales for making representations was too short and requesting an extension (114 representations). FCS wrote to respondents who requested an extension to the 28 day consultation period to inform them that any representations received up until 14th August 2016 would be taken into account in reaching a decision on the application for consent.

Representations were received from organisations and Members of Parliament, including: The John Muir Trust; EADHA; Scottish Wildlife Trust; Save Your Regional Park (SYRP); Scottish Campaign for National Parks; Lochwinnoch Community Council; Save the Grotas; CMRP; SNP Largs and District Branch; Kenneth Gibson MSP; Patricia Gibson MP.

Many of the representations contained common observations and concerns and these are summarised below –

6.5.1 Impact on the area of Wild Land

Particular concern was expressed about the potential erosion of the special qualities of the wild land area through the planting of conifer species (in particular) at the edge of and within the wild land area. Generally there was greater support for the planting of native species in these areas.

6.5.2 Impact on the landscape

In particular the potentially negative effect on the Special Landscape Area, the impact on the escarpment and crags (especially the area known as Cauld Rocks), negative landscape effects of deer fencing, appearance of conifers on the skyline, damage to visual amenity when viewed from the town, future harvesting in prominent areas above Largs, visual impact of ploughing, planting of commercial conifer species at the entrance to the glen and in full view of Largs.

6.5.3 Impact on Natural heritage

in particular the planting of conifers in proximity to the SPA, impacts on skylark, a 'red' list species, other species listed as breeding on site now on the 'red' list and therefore impacts not assessed in this context, lack of ecological connectivity in current design, potential for enhanced habitat networks not considered, loss or deterioration of important habitats especially within Local Nature Conservation Sites, impact on peregrine falcon, impact on peatlands.

6.5.4 Policy

Proposals considered contrary to the aims and objectives of the CMRP, proposals are a poor fit with the Ayrshire and Arran Forestry and Woodland Strategy, proposals are not compatible with various policies within the NAC Local Plan, proposals are contrary to Scottish Planning Policy (Wild Land).

6.5.5 Access and amenity

Representations focussed in particular on what was seen as very adverse effects resultant from conifer planting along the core path route, in the Greeto bridge area and in the Cauld Rocks/escarpment area. The concern over the potential impact on the public enjoyment of these areas and how they are experienced came across very strongly in a very high proportion of representations from members of the public. The community expressed strong concerns about the potential change in character in this culturally important location. It was clear that the issue locally was not just about restricted physical access but also the potential reduction in the views out to the Clyde, erosions of the dramatic views of the steep sided open glens, loss of views of the open upland areas and a significant change to the overall atmosphere of the location. This issue featured highly within a local petition organised by 'Save the Gretas' campaign signed by over 1000 people.

6.5.6 Site suitability for tree growth/silviculture

A number of representations contained concerns about the potential for successful tree growth on parts of the site and queried the confused approach to the use of fertiliser within the ES.

6.5.7 Community benefit

That in their view the proposals did not represent any significant direct community benefit was a clear concern for quite a number of respondents. Opportunities such as community woodlands or new footpath development were cited as possible options for consideration.

7 SUMMARY OF CONSULTATION RESPONSES (2ND CONSULTATION- ADDENDA TO ENVIRONMENTAL STATEMENT MARCH/APRIL 2018)

In September 2016 FCS indicated that in its view the project was likely to result in significant adverse environmental impacts and that consent for the project

could not be granted. In the period between September 2016 and March 2018 the applicant revised their proposals to either remove or mitigate the outstanding adverse impacts associated with the development. The applicant submitted further environmental information in the form of Addenda linked to the original ES.

The addenda to the ES (Version 3) were subject to public consultation for a period of 28 days, beginning on 21st March 2018. Public notices were placed in the Greenock Telegraph and the Largs and Millport News. The ES and the Addenda were made publicly available at Largs Library and the FCS - Central Scotland Conservancy Office at Hamilton.

The key ES documents and the additional environmental information/ Addenda were made available electronically through the FCS public website and full electronic copies of the ES and annexes provided on request.

FCS received just over 100 responses to the public consultation with the key issues raised detailed below.

7.1 North Ayrshire Council (NAC)

As with the previous submission NAC provided a detailed analysis of the proposals as they relate to the NAC Local Development Plan, wider community concerns and changes that had taken place to the project. Much of the analysis and comment provided by NAC was similar to the 2016 consultation comments so can be referred to above in the 2016 consultation summary. In relation to SLA the Council still had reservations that the proposals would introduce a land use change that would detract from the landscape qualities of the SLA and Regional Park. The Council noted that the design recommendations they put forward as part of their 2016 response had been taken into consideration with the removal of Sitka spruce planting on Feuside Hill & Irish Law. The Council's response acknowledged the changes to the design behind Largs and accepted

that these would result in a lesser impact on the escarpment and Cauld Rocks. However, the Council did highlight that it was felt that some of the project would still be visible on the elevated areas of the project and requested full consideration be given to potential impacts on these views. The Council welcomed the proposal of a variable tree free buffer along the core path. In their response the Council acknowledged the reduction in the proposed position and density of Sitka spruce planting on the escarpment, hilltops and in close proximity to Cauld Rocks and accepted that these changes could potentially mitigate some of the impacts identified from the previous design. They also highlighted that a potential significant land use change could detract from the views of the escarpment and the setting of Largs.

In its response the Council stated that it is content that vehicular access will only take place through the Blairpark Farm entrance and highlighted once again concerns regarding vehicular access via Bellesdale Avenue. Linked to this point the Council requested that any promotion of the site as a recreational resource direct potential users towards using the Blairpark access point rather than Bellesdale Avenue. The concept behind the proposed public access group for the site was supported by the council, however they noted that this would be duplicating the work done by the North Ayrshire Outdoor Access Forum the statutory body through which decisions relating to outdoor access are made and issues such as final position of fence line, pedestrian access gates, picnic sites should be discussed with the forum prior to any implementation should there be consent.

In closing the Council indicated that it would support approval of the proposals subject to a number of matters being addressed by condition or design change, including agreements on public access arrangements, core path tree free buffers, deer fencing proposals, vehicular traffic routes, tree planting at Cauld rocks, consultation with West of Scotland Archaeological Society (WOSAS) and visual impacts of subsequent felling operations.

7.2 Scottish Natural Heritage (SNH)

SNH acknowledged that they had provided advice on earlier applications and to the applicant at various stages of the proposals development. SNH did not provide advice on the habitats present and their comments were restricted to:

7.2.1 Renfrewshire Heights SSSI & SPA

The response stated the SSSI/SPA is notified for habitats which support a nationally significant population of hen harrier. SNH advised that there was the potential for indirect impacts as a result of the proximity of the proposed woodland to the SSSI/SPA as a result of the creation of suitable conditions for predators. SNH expressed the opinion that the risks of increased predation could be mitigated through an ongoing predator control programme.

7.2.2 Waterhead Moor Wild Land Area (WLA)

SNH stated that during the development of the proposal they had provided comments on several design iterations in relation to the potential interaction between the proposed woodland and the WLA. Whilst stating previous comments remained relevant, SNH acknowledged that the applicants' amendments to the proposal had addressed the issues that they had raised and confirmed that in their view the modified proposals would no longer result in a significant adverse effect on the qualities of the Wild Land Area.

7.3 Scottish Environmental Protection Agency (SEPA)

The previous consultation response from SEPA raised objections on the basis of lack of information/mitigation regarding impacts on wetlands, GWDTE and peat. SEPA's response acknowledged that they had commented on drafts of the revised proposals prior to the formal submission.

In their response SEPA noted that excavation depths of cut roads and borrow pits (maximum of 1m in depth) was provided, as well as information on the circumstances where forest roads will be cut or floated. SEPA's interpretation of

the information was that where avoidance of GWDTE is not possible roads will be floated where they cross M20 and M6 mires and in all other locations (dominantly M23 rush pasture) roads will be cut with porous construction and culverts where necessary. SEPA stated they are satisfied that the approach outlined in Addendum 3 Annex 4 for buffering GWDTE of nature conservation value is acceptable. The response also noted that the number of borrow pits was reduced as a result of the reduced roading requirements and that borrow pits have been moved to avoid impact on M20 habitats and deep peat. On this basis SEPA stated they were satisfied that this approach should minimise impacts on wetlands and peat. Consequently SEPA removed their objection to the project and also noted they would be keen to comment on detailed proposals for borrow pit reinstatement.

Note: SEPA's response refers to drain blocking on Rigging Hill which was not part of the final project. Consequently FCS sought clarification from SEPA on whether this omission would have a material impact on their response and the advice given within it. SEPA confirmed that they are satisfied that their response stands irrespective of this omission.

7.4 Largs Community Council (LCC)

The LCC response summarised a discussion held with representatives from Tilhill & Gresham House at an open meeting organised by LCC. Based on questions they had asked and answers provided by the applicant's agents, LCC indicated that they objected to the revised proposals. Their response also stated that LCC considered their objections submitted in 2016 remained valid, whilst at the same time raising additional concerns which are summarised below. Whilst sustaining its objection to the Project the LCC did welcome the reduction in the overall area of commercial forest represented by the project.

7.4.1 Hydrology & Pollution

LCC highlighted potential risks to residential properties neighbouring the site from water runoff as a result of ground preparation. LCC objected to the potential use of fertilisers and/or pesticides.

7.4.2 Landscape

LCC highlighted the potential visual impact of the proposed deer fence on the landscape and the potential negative effects on Largs. They also expressed concern that in their view Sitka spruce would be visible on the ridges behind Largs, giving rise to adverse visual impacts.

7.4.3 Community Engagement/Benefit

LCC highlighted what they perceived as a lack of engagement with the community of Largs and felt their suggestions had not been taken into consideration by the developer. The LCC response also stated that no benefit to the town of Largs or CMRP would be delivered from this project. In closing their representation, LCC stated that they would consider some form of community buyout should the landowner decide to sell part or all, of the site.

7.5 Scottish Wildlife Trust (SWT)

Scottish Wildlife Trust acknowledged the changes the applicant had made to the design but stated that they felt some of the objections made during the 2016 statutory consultation had not been adequately addressed. They stated they retained their objection to the development. SWT acknowledged the significant reduction of Sitka spruce proposed for planting within the Wild Land Area (WLA), but suggested there should be no commercial non-native planting within the WLA as this was, in their view, contrary to Scottish Government & SNH policy. SWT also indicated that whilst the proposed planting areas were relatively small and located on the periphery of the WLA, any planting could in time lead to a gradual loss of wild land.

The response also highlighted the impacts on the LNCS and suggested that the proposed mitigation measures were insufficient. SWT suggested that there should be no planting of non-native trees within the LNCS or a buffer zone around it to prevent changes to the hydrology or ecology of the site. SWT also considered that the project should include peatland restoration.

7.6 Save the Gretas

Save the Gretas submitted both a representation and a petition to FCS. The petition was in both paper format and online, with the online petition comprising 611 signatures. In their representation, Save the Gretas sought to clarify their interpretation of the escarpment behind Largs as being defined as the whole area of steep fronted hills stretching from the northern boundary above Harplaw Farm to the crags immediately East of Holehouse Farm house. They considered that the definitions used by the developer were too narrow.

Save the Gretas stated that their 2016 response remained valid. They wished it to be considered alongside the most recent representation. They were concerned that the creation of woodland immediately behind Largs, on the hilltops and within the Gogo Valley would change the setting & vistas experienced in Largs. They believed the proposals would restrict the recreational experiences currently enjoyed by all who live or visit Largs in a negative way. They also considered that the potential visual impacts were poorly considered and that the visualisations used in the documents were outdated and did not accurately represent the actual developments. The petition submitted by Save the Gretas suggested that planting be restricted to an area east of the Greeto Burn and the south bank of the Gogo Valley below the confluence of the Gogo & Greeto Waters in order to Save the Gretas also highlighted concerns about wild land, potential impact on the LNCS, potential impacts of chemical usage and flooding risk.

7.7 Other Organisations & Responses from Individuals

This second consultation generated a high volume of representations. Whilst a small number of representations were highly supportive of the revised proposals, many included general objections to the principal of the project, whilst others offered specific comments and observations on the topics where they felt the project had short comings.

Representations were received from the following organisations: Lochwinnoch Community Council, Save Your Regional Park Campaign (SYRP) and CMRP. Many of the representations contained common concerns or comments and these are summarised below. (Policy concerns raised by 2016 representations were the same as 2018 policy concerns raised and therefore can be referred to in the 2016 consultation summary).

7.7.1 Impact on Landscape

A number of responses raised the possible change to the views behind Largs, many felt that planting would be visible on the skyline, that the proposed deer fence could be visible from the town and that the escarpment was an important visual backdrop to the setting of the town of Largs. A number of representations highlighted concerns over a change in land use in the Gogo Valley and the resultant landscape impacts. A common theme was to highlight the importance of the expansive views from the hills behind Largs as well as those views from the Core Path towards the Clyde estuary and the Isle of Cumbrae. A number of representations considered the quality of the visualisations used to illustrate how the new woodland would appear from the key viewpoints to be poor, difficult to understand and therefore were not convinced that they accurately depicted the true impact of the project.

A significant number of the representations included a request that potential planting be confined to an area east of the Greeto Burn and that the south bank of the Gogo Valley be kept undisturbed below the confluence of the Gogo/Greeto and therefore keeping the area immediately behind Largs unplanted.

7.7.2 Impact on Wild Land

A number of representations expressed the view that no tree planting of any form should take place within the WLA, and especially not conifer planting. A number expressed a view that conifer planting in proximity to the WLA would have a detrimental effect on the qualities and experience associated with areas of wild land and that native woodland would be more appropriate in forming a woodland fringe when planted in proximity to wild land. There was also concern that should the project be consented, then it was possible that further applications for planting within the WLA would result.

7.7.3 Access & Amenity

The core path was once again highlighted as a key consideration in a number of representations with many commenting that the proximity of Sitka spruce to the core path was a particular concern. The change from open hillside to a woodland setting was a concern for some, allied to this it was felt that the presence of a deer fence or the location of the deer fence and pedestrian gates in the fence would restrict access to the area. Many of the representations suggested that the Gogo Valley should be excluded from planting proposals.

7.7.4 Impact on Natural Heritage

Respondents highlighted concerns over the planting of conifers in proximity to the SPA and the potential impact of increased predator numbers, reduced prey and habitat availability, loss of habitats associated with the LNCS, impact on peatland habitat, loss of habitat for red list bird species, impact on peregrine falcons and loss of territory for red list bird species such as skylark.

7.7.5 Hydrology

A few respondents raised concerns over the risk of flooding to residential property located adjacent to the afforestation project as a result of ground preparation and drainage operations. A number also highlighted pollution concerns through the use of fertilisers/herbicides, forest road construction and

borrow pits and the risk of exacerbating periods of low flow already experienced by the streams/rivers on the site.

7.7.6 Community Benefit

Several respondents stated that the proposals did not deliver a clear package of community benefits. Whilst some acknowledged the potential for the significant new footpath network to deliver access benefits, some also considered that this could be offset by perceived restrictions to access associated with the proposed deer fencing and the planting of the woodland itself.

8 ASSESSMENT OF THE MAIN ISSUES

8.1 Evolution of the Forest Design

Since the initial application for an Opinion was made to FCS under the EIA (Forestry) (Scotland) Regulations 1999, the proposed design of the forest has changed significantly through a number of separate design iterations over a period of more than 5 years. These are set out in the ES Technical Annex C and summarised in table 4 below.

FCS has provided detailed written and verbal advice to the applicant in relation to the design iterations contained within Versions 1 and 2 of the ES and prior to the first submission of the ES.

Table 4 Forest Design Development

Iteration	Forest Design Ref.	Date	Area Sitka spruce (ha)	Further Detail
1	n/a	30/04/2013	595	Area based on the initial concept map supplied to FCS along with the formal request for an opinion under the EIA Regulations. Little site survey carried out at this point and little design detail presented.
2	1	11/04/2014	560	Initial concept design refined based on work of landscape architect and initial peat depth assessment.
3	3	18/06/2014	465	As a result of discussion with FCS and other stakeholders, planting drawn back from the escarpment ridge well into Greeto Glen. Applicant raised concerns about the economic viability of this design.
4	5b	07/01/2014	515	Submitted as ES Version 1. Planting reintroduced onto escarpment ridge. Mainly native broadleaves with the Sitka spruce area increased within Greeto Glen area. Riparian 'no planting' buffer applied to main river corridors in response to SEPA advice – to address concerns over woody debris increasing long term flood risk.
5	6	18/08/2015	443 plus 37 Sitka spruce/lodge pole pine in mixture	Submitted as ES Version 2. Design amended to remove planting from areas of deep peat on Rigging Hill. Conifer mixture introduced to try to address poor nutrient status of this area of the site.
6	6c	08/02/2016	422.8 plus 34.78 Sitka spruce/lodge pole pine in mixture	Submitted as ES Version 3. Following feedback from FCS and SNH, removal of Sitka spruce from western slopes of Irish Law and Feuside Hill to reduce impacts of planting on Wild Land Area. However contrary to earlier advice from FCS, a large area of Sitka spruce reintroduced to main escarpment ridge.
7	8	19/02/2018	317.63 plus 26.84 Sitka spruce/lodge pole pine in mixture	Submitted as Addenda to ES Version 3. As a result of feedback from FCS, SEPA, SNH and LCC reduction of conifer planting in the upper Greeto to reduce impacts of planting on Wild Land Area. The removal of planting from Irish Law & Feuside Hill. Redesign of Core Path Area & Cauld Rocks. Removal of Sitka spruce from escarpment ridge. Inclusion of new constructed footpath network and associated access infrastructure – picnic sites, signage, seating

8.1.1 Impact on the landscape resource

Special Landscape Area (SLA) and Regional Landscape Character (RLC)

The SLA is a Local Authority designation covered by a specific policy within the North Ayrshire and Arran Local Plan and in relation to which the ES concludes the predicted level of significance of impact to be locally significant.

In its representation in 2016 NAC indicated a concern over the extent of Sitka spruce planting and suggested a reduction in area behind the escarpment and around higher hill tops would mitigate the effect of the project on the SLA. The revised project represents a significant reduction in the area of Sitka spruce particularly behind the escarpment and further to the east around Feuside Hill and some other higher hill tops. In its 2018 representation NAC confirmed that the majority of its design suggestions had been incorporated within the revised design and in relation to the SLA that the removal of large areas of Sitka spruce and replacement with either native broadleaves or no planting dealt with the majority of their concerns in relation to the likely effects of the project on the SLA. Whilst recognising that the applicant had responded to the views of the Local Authority and other parties NAC retained a residual concern that the proposed land use change would still detract from the landscape qualities of the SLA. It sought assurance that this aspect of the proposals was given due consideration by FCS in reaching a decision.

Concern over the potential effects on the SLA were expressed within a range of other representations from both organisations and individuals, although not necessarily framed specifically around the designation itself. Many referenced the changes to the wider landscape that could result from the project and often this merged into a concern around land use change that results from forestry projects.

FCS acknowledges the concerns reflected in the representations and accepts that the proposals are likely to have a localised effect on the SLA. However, the

proposals have been significantly modified through a reduction in conifer planting within areas key to the SLA and the area of the SLA that will be directly affected represents a very small proportion of the total SLA area. FCS therefore considers that the proposal will result in a limited effect on the nature of the resource as a whole and will not result in a significant impact on the SLA.

8.1.2 Local landscape character

The principle subject within this assessment is the land immediately behind and above the north side of Largs containing steeply rising open land culminating in a very prominent escarpment feature. The summits of Langley and Wooy Hills are included in this along with the Cauld Rocks, an important local resource used for climbing and offering views of the Clyde and Arran. The ES concluded that much of this feature would not be affected by the proposed planting it being predominantly broadleaf in nature.

In its representation NAC noted particular concern over the siting and density of Sitka spruce on and behind the escarpment, noting that this area including the Cauld Rocks is a key focal point within the setting of Largs. NAC also considered that the planting of broadleaves in the vicinity of the Cauld Rocks could have an unacceptable impact on the recreation and amenity of this area.

The potential effects on this area of the site were raised in a large number of representations, including from LCC, Save the Grotas, and a range of individual representations. Concerns centred on the loss of open hill above the escarpment and changes to what is considered to be an important backdrop to the town. The concerns around visual changes then linked to fears around how these changes would affect the recreation and amenity value of the area for locals and visitors to the area. Many representations also reflected concern about how the construction of deer fencing around the area of native woodland planting on the top of the escarpment would affect the local landscape character, many stating that it will have a negative effect.

FCS understands the importance and sensitivity of this part of the site to the local community and accepts that the project will result in a minor change to the local landscape character. However, the design of the woodland in this area of the site has been modified to remove a significant area of Sitka spruce from the top of the escarpment ridge on Wooy Hill and the native broadleaf planting has been altered to create a much larger unplanted area above and behind the top of the rocks with no native trees within 100m of the top of the rocks. Trees that will be planted across this area will be slow growing, be of small stature, be planted at variable spacing and with wide rides between the groups of tree planting. Therefore FCS is satisfied that the design modifications along with the type of woodland to be planted will not result in the creation of a woodland that will obscure or otherwise negatively affect the landscape value of these important features (Appendix 11.1, condition 14). The removal (and replacement with native broadleaves) of a significant area of Sitka spruce from the top of the escarpment will mean that planting in this area will not be visible from key design viewpoints and FCS is content that this element of the proposals now reflects the principles of good forest design. The proposed deer fence line may be visible from the edge of Largs (represented by viewpoint 4) but FCS believes that this will not result in a significant visual impact on the local landscape character. However as this is an important issue for LCC, Save the Gretas, interested stakeholders and also a concern for NAC, conditions to mitigate and minimise the potential effects of deer fencing have been put in place - consent is conditional upon the final alignment and specification of fencing being approved by FCS in discussion with NAC (Appendix 11.1, condition 8).

FCS is therefore of the view that the design changes that have been introduced within the project will provide sufficient mitigation to reduce the impact on the local landscape character to a minor level and consequently the overall impact will not be significant. The detailed woodland design is a condition of consent as is the production of long term woodland management plan for areas of high amenity value to ensure appropriate forest management within these high value recreation areas (Appendix 11.1, condition 3 & 18).

8.1.3 Impact on area of Wild Land

The Scottish Government's third [National Planning Framework](#) recognises wild land to be a "nationally important asset" and initially the ES concluded that the impact on the Wild Land Area (WLA) was not likely to be significant. However FCS disagreed with this assessment being of the opinion that the magnitude of change was likely to be moderate resulting in a significant overall impact. This assessment was based largely on the extent and location of conifer planting within the woodland design.

Many representations indicated a concern in relation to planting within the WLA, notably from CMRP, SWT and SYRP. Most considered that the planting of Sitka spruce within the WLA conflicted with stated Scottish Government policy and represented the gradual erosion of an important area of wild land. SNH provided advice to FCS in this regard.

Subsequently the proposals have been modified with respect to the area of planting within WLA. The overall area has been reduced from 165 ha to 84 ha, including a reduction in the area of Sitka spruce (including Sitka spruce/Lodgepole pine mix), of 51%. The approximate species proportions of the remaining planting areas within the WLA are as follows: 9.68% forest edge (8.19ha), 7% native woodland (5.93ha), 0.44% Norway spruce (0.37ha), 3.73% Scots pine (3.16ha), 77.16% Sitka spruce (65.30ha), 1.99% Sitka spruce/lodgepole pine (1.68ha).

The revised planting proposals respond to advice from SNH through the removal of all the proposed planting from Feuside Hill and Irish Law. Further mitigation measures are incorporated in the upper Greeto area, with the removal of planting from Swinside Hill as well as a reduction in the area of conifer planting proposed in the area to the north of the Greeto. The design of planting on the boundary between wild land and the proposed forest in the area of the upper Greeto has also been modified, with the transition comprised mainly of native woodland, Scots pine and low density edge planting. Sitka spruce planting within

the wild land area is primarily located on lower slopes adjacent or close to the road recently constructed road as part of the hydroelectric development consented by North Ayrshire Council. The Sitka spruce in this location has the potential to offer a screening benefit, helping to screen the presence of the road when viewed from the WLA.

The revised design has also resulted in a reduction in the length of road construction associated with the project. The original proposal indicated a requirement for 8518m of road construction, of which approximately 2880m were located within the WLA. The revised project now includes the construction of approximately 4898m, of which approximately 850m would be located within the WLA.

The revised proposals also help ensure that the key characteristics of the local landscape character of this area of wild land are retained. Specifically, the crags and steep sided slopes of the Greeto valley are to be retained as prominent features and woodland areas within the WLA now respond positively to local landform and are finished with a diffuse forest edge drifting into the open moorland above. Further, FCS has taken into account the presence of the access roads already constructed within the WLA as part of the hydroelectric scheme development along with the recognition that the planting proposal now directly affects a relatively small proportion of the entire WLA.

Given the changes to the project and advice received from SNH outlined above, FCS believes that the mitigation proposed within the revised proposal will reduce the magnitude of change to minor and therefore no longer result in a significant adverse impact on the WLA.

8.1.4 Impact on the visual resource

Nine views were selected within the EIA scoping process. These are summarised below:

Table 5. Agreed Representative Viewpoints

Representative of:	Viewpoint Number	Viewpoint Description
Sea views	1	Cumbræ ferry slip
Town Views	2	Largs prom near RNLI
	3	Auchenmaid Drive
	4	Holehouse Road
Local Walks	5	Castle Hill
	6	Knock Hill
Road View	7	Brisbane Glen Road
Local Walks	8	Rowantree Hill
Road View	9	A760

Views 1-7

In assessing the original ES in 2016, FCS concluded that in general the significance of impact predicted in relation to the visual resource was likely to be higher than was set out in the ES. This was based on the conclusion that generally the magnitude of change predicted by the ES for views 1 to 7 was likely to be higher than that presented. Specifically, in relation to those views with sight of the escarpment (views 1-7) FCS believed that the sensitivity of those views was likely to be medium and the magnitude also generally likely to be medium. This level of sensitivity was based on the fact that the escarpment is regarded as both 'striking' and 'distinctive', with the magnitude of change of medium resulting primarily from the large patches of Sitka spruce that would intrude onto the skyline and more distant hilltops when viewed from key viewpoints. Further the proposed broadleaf planting in and around the crags and detailed topography of the face of the escarpment was likely to have a masking effect on these distinctive and characterising features.

FCS therefore concluded that the predicted impacts on the visual resource as a whole were likely to be significant and unacceptable.

In the revised design proposals the large patches of Sitka spruce referred to above have been replaced with native broadleaves. Sitka spruce does remain on Langley and Wooy Hills and their contribution to the setting and experience of Largs was a key concern for Save the Grotas, LCC, interested individuals and also a concern raised by NAC. FCS is satisfied that these areas will in part be screened by the native woodland on the foreground lower slopes and this now contributes to the visual integrity of the overall design of the forest. Planting has also been removed from the Cauld rocks and its immediate surrounds and therefore FCS is satisfied that the striking and distinctive nature of the escarpment will be preserved and no masking effect is likely to occur (Appendix 11.1, condition 14).

The design changes described here will, in the view of FCS, reduce the magnitude of change to a minor level and result in overall impacts on the visual resource that are not significant.

8.2 Public access

8.2.1 Vehicular Access

Representations received from members of the public and from NAC referred to the potential for disturbance to the residents of Largs should large/heavy forestry vehicles use Bellesdale Avenue for access. The ES seeks to address this impact by stating that heavy forestry related vehicles will use the Blairpark (A760 entrance) and that no vehicular public access will be permitted. In order to ensure that any impacts associated with vehicular access to the site associated with the implementation of the project are minimised, a transport plan which will detail the types of vehicles accessing the site from all access points is to be prepared and submitted to FCS for approval and this is a condition of consent (Appendix 11.1, condition 17)

8.2.2 Access to open hill

The ES has subdivided the assessment of impact into 'construction' and 'operational' phases. FCS agrees with this approach. In general the construction phase will present limitations to access across most of the project area. This should be relatively short-lived in timescale and must be managed in co-operation with NAC access staff and with regard to the provisions of the Land Reform (Scotland) Act.

The operational phase will result in an increase in formal access with a reduction in the opportunity for less formal access. FCS accepts that this might generally represent a balance of loss versus gain provided that access provision is properly managed on an ongoing basis.

Access to open hill was a key element of many representations from individuals and many felt that the installation of a deer fence would restrict access. NAC highlighted specific open hill areas and routes that are important for outdoor access and suggested that any consent include conditions that required the preparation of an access plan which could be agreed with them. The Council also requested conditions relating to location of the deer fencing and self-closing gates (see also landscape section). FCS agrees with the Council's advice and to address concerns raised and ensure potential effects are mitigated has incorporated the following conditions:

(Appendix 11.1, Conditions 8, 9, 12 and 15).

The ES considers the predicted impacts on public access to the open hill during the operational phase to be moderate beneficial following mitigation within the forest design. FCS agrees with this conclusion based on the future provision of a more formal access network within the forest that will provide improved sheltered access to the open hills beyond the forest.

FCS therefore concludes that overall impacts on access to the open hill will not be significant.

8.2.3 Core path access and the Greeto Bridge area

For many years this has been an extremely important local resource to the people of Largs, understandably considering its proximity to the town, easy access on foot and the sense of remoteness and grandeur of the setting.

The majority of representations included commentary on some aspect of the core path and its surrounds. STG, focussed on what they saw to be a lack of assessment of previous recreational use and how it could be protected. The potential loss of views and the reduction in the quality of users experience as a result of Sitka spruce planting were highlighted by many individuals and groups including CMRP. Others such as SYRP and STG suggested that a much larger tree free buffer be put in place or preferably no planting along the core path at all. Connected to this but in relation to all access matters, NAC suggested that the North Ayrshire Access Forum is an appropriate vehicle to facilitate community involvement in future management of access within the site.

Having reviewed all the representations to the ES consultation in 2016, FCS concluded that the impact of the proposals on local amenity and cultural heritage had not been adequately assessed and that as a result the impact of the proposals on core path access could potentially be significant.

In response to this the revised design proposals indicate that all planting of productive conifers has been removed from the area to the south of the core path and the area of Sitka spruce proposed for planting in the area to the north of the core path has been significantly reduced. The detailed design of the planting proposed immediately adjacent to the core path has been amended to incorporate a variable tree free zone of at least 20 metres either side of the core path. This will ensure the retention of key views of the Firth of Clyde currently

enjoyed by people returning from Greeto Bridge back to Largs. The use of amenity conifers along the core path provides further mitigation and reflects accepted good forest design practice in recreational areas of forests. FCS is satisfied that the woodland design changes along the core path and into the Greeto Bridge area serve to mitigate the impacts of establishing a forest along the core path corridor and these mitigation measures form conditions of consent (Appendix 11.1, conditions 3, 13, 14).

The provision of access to the area and the experiences available to users will be improved with the completion of 3.3km of new formal paths which will allow access to the upper reaches of the site immediately above Largs as well as a more easily accessible lower route. As the delivery of the new access infrastructure is an integral component of the project and mitigation for impacts on local amenity, conditions relating to the implementation of path works will form part of consent (Appendix 11.1, conditions 10 & 11). The applicant has committed to the establishment of an access management group made up of a range of local stakeholders to contribute to the ongoing management of access within the project area. This is likely to operate through, or as a sub group of, the North Ayrshire Outdoor Access Forum (Appendix 11.1, conditions 15 & 16).

FCS also recognises that the Greeto Bridge area is a key feature of the site for recreational use and that appropriate maintenance of access is essential to maximise the recreational potential of the site. This will be ensured in the medium to long term through the development and approval by FCS of an access maintenance plan (Appendix 11.1, condition 12). Further to ensuring key features of the site are managed appropriately a long term woodland management plan will be produced for high amenity value areas of the site and this is a condition of consent (Appendix 11.1, condition 18)

FCS is now satisfied that the impact of the proposals on local amenity and cultural value has been adequately addressed in the ES (addenda). FCS has considered both the assessment of impacts in the ES (Addendum 1 LVIA &

Addendum 2 Revised Proposals for Public Access) and all the representations and concludes that the impact on core path access and the Greeto Bridge area will not be significant.

8.3 Ecology – habitats

The following habitats have been identified as present within the site:

8.3.1 Acid Grassland

The ES predicts a loss of 58.5% of this type of habitat within the site due to tree planting. The balance will remain as designed open ground within and at the edge of the forest. The ES estimates a total area of this habitat within Britain in excess of 1,200,000ha and 38,340ha within Ayrshire and attributes medium sensitivity and medium magnitude of impact to this habitat type, resulting in the overall prediction of a significant impact. The ES balances this to a degree by predicting an improvement in the condition of the remaining areas of this habitat type as a result of removal of grazing animals. Generally acid grassland is of a lower sensitivity than the other priority habitats identified within the site and is one of the most extensive semi-natural habitats in Britain and more locally to the site, within Ayrshire. Additionally grassland of this type is often in poor condition and relatively species poor as a result of past and present management activities and this is the case within the application area. It is acknowledged that these grasslands areas which are more common and not protected are appropriate for afforestation and that areas of B1.1 grasslands that are not planted and not grazed will likely degrade over time as scrub species invade and occupy the site. This will have a small but negligible impact. Consequently FCS believes that the magnitude of the impact will be low as the project will have little or no overall effect on the baseline position for acid grassland and therefore concludes that the impact on this habitat type will not be significant.

8.3.2 Marshy Grassland (M23a, M27, M6)

The ES predicted a loss of 71.7% of this habitat within the site due to tree planting. Generally this is a far less common habitat type across Britain than acid grassland and as such has a higher sensitivity. The ES attributed medium sensitivity and medium magnitude of impact to this habitat resulting in an overall assessment of a significant impact. However, FCS believes that the potential for significant adverse effects specifically relates to botanically rich and/or highly groundwater dependent terrestrial ecosystems (GWDTE) and acidic and basic flushes. Road construction and borrow pit excavation may also lead to adverse effects on these habitats.

SYRP and SWT both expressed the view that this particular habitat should not be planted and that the applicants planned approach could lead to damage of these habitat types. The revised design proposal has taken account of the soil survey and a peat depth survey, along with addressing concerns highlighted by SEPA and FCS. Where it is not possible to avoid GWDTE, roads will be floated across M20 and M6 habitats and in all other situations the roads will be cut and hydrological connectivity safeguarded through the use of culverts (where necessary). Additionally, excavation of roads and borrow pits will not exceed one metre in depth (Appendix 11.1, condition 5). The approach to the buffering of GWDTE (Addendum 4 & Addendum 4 Annex 4) habitats has been accepted by SEPA as providing acceptable protection for GWDTE. The UKFS states that twenty metres is the appropriate buffer for wetland habitats and this will be a condition of consent (Appendix 11.1, Condition 25).

It is important that areas of M23a habitat that exhibit good floristic qualities and connectivity are maintained and are afforded full protection. Areas of this habitat type have been identified along the base of the steepest slopes of the Gogo and Greeto valleys. The ES states an ecologist will be on site during the construction phase of the project to ensure that any species rich open ground habitats are not planted within the LNCS. This approach should ensure that M23a habitats with good floristic qualities are protected (Appendix 11.1, condition 34).

The designed in mitigation and associated conditions ensure that only non-sensitive marshy grassland with low species diversity will be planted and as a result FCS is satisfied that the impact on marshy grassland habitats will not be significant.

8.3.3 Upland Heath

The ES predicts a loss of 47.5% of this type of habitat within the site due to tree planting. The balance will remain as designed open ground within and at the edge of the forest. The ES describes a total area of over 2,500,000ha of this habitat within Scotland and over 25,000ha within Ayrshire alone, estimating a loss of 17ha as a result of this project. The ES attributes a high sensitivity and a medium magnitude of impact to this habitat type resulting in an overall assessment of significant impact. The Statement balances this impact by predicting an improvement in the condition of the remaining area as a result of removal of grazing animals. FCS notes that despite the high sensitivity attributed to this habitat, within Scotland dry heath is a very abundant habitat type.

SYRP concluded that based on the potential moderate adverse impact on upland heath habitat planting is inappropriate. However, given the context outlined above, FCS is of the opinion that the magnitude of the impact is close to negligible and will have little or no overall effect on the baseline position for dry heath. FCS therefore concludes that the impact on this habitat will not be significant.

8.3.4 Blanket Bog/ Deep Peat

The 2016 ES indicated that this habitat would not be planted. However, given that there were areas within the proposed planting that contained a mosaic of deep and shallower peat, some of which may represent GWDTE, FCS was not satisfied that the impact on this habitat type would be reduced to the level stated. In addition, the soil survey identified a total area of 143ha of bog habitat, a proportion of which was within areas proposed for planting.

The revised design reduces the proposed planting area by approximately 100ha. Significant areas of deep peat and bog habitat have been identified and now removed from the proposed planting area, which in conjunction with the measures and conditions detailed below mitigates concerns raised by LCC and CMRP that bog habitats would be significantly affected. Reductions in planting have been made on Rigging Hill, Feuside Hill and Irish Law and the proposals state that care has been taken to avoid deep peat and FCS agrees that this is the case. The UKFS suggests a twenty metre buffer should be applied between deep peat or bog habitat and the areas planned for planting and ground preparation and as a result this will form a condition of consent (Appendix 11.1, condition 25). Roads will be cut or floated when crossing areas of NVC M20 and M6 habitat types and the reduction in road construction requirements by 3826m and the resultant reduction in borrow pit requirements (or relocation of borrow pits) also ensures that impacts on deep peat are avoided (Appendix 11.1, condition 4). This methodology will be a condition of consent (Appendix 11.1, condition 24, 25 & 26).

FCS is therefore satisfied that there will not be a significant adverse impact on blanket bog habitat and that deep peat will not be planted or otherwise adversely affected.

8.3.5 Areas of base rich and neutral grassland

There are small areas of these important grassland habitats situated within the LNCS. The ES indicates that these areas will not be planted and will therefore be unaffected by the proposals. SWT expressed concerns that the approach to protecting these habitats was not sufficient. Consequently to ensure these areas of high conservation value are protected adequately across the site an ecological clerk of works will be appointed by the applicant to oversee the construction phase of the project. (Appendix 11.1, condition 34).

FCS is therefore satisfied that the assessment of the impact on base rich and neutral grassland will not be significant.

8.3.6 Local Nature Conservation Sites (LNCS)

There are four LNCS sites (Noddsdale Water and Kilburn Glen, Gogo Water and Greeto Water, Kelburn and Fairlie Glen and Glengarnock and Surrounding Uplands) that overlap with the Halkshill/Blairpark site. The LNCS sites cover a total area of approximately 692ha within the project boundary.

The Gogo and Greeto Water LNCS extends from the edge of Largs up the Gogo and Greeto Waters and includes a significant proportion of the steep sided glens, eventually reaching the edge of the open moorland to the east of the area. To the north, the Noddsdale Water (Brisbane Glen) and Kilburn Glen LNCS includes some of the Wooy Hill and Langley Hill ridgeline. The Glengarnock and Surrounding Uplands LNCS intersects with the western portion of the site encompassing Irish Law, Feuside Hill and the Rye Water valley slopes. The Kelburn and Fairlie Glen LNCS intersects with a small area on the south-eastern portion of the site. Noddsdale Water LNCS and Gogo & Greeto Water.

Noddsdale Water LNCS and Gogo & Greeto Water LNCS are designated by North Ayrshire Council as substantial areas of unimproved acid grassland with a number of uncommon plants and breeding bird species. In terms of area, the Gogo and Greeto Water LNCS is the main LNCS that will be affected by the proposals. The principle concern here is that the proposals do not result in a significant impact on any sensitive habitats or species within the LNCS and to this end the findings of the habitats and bird surveys are relevant. There will be extensive areas of both conifer (147ha) and native broadleaves (74ha) planted within the LNCS boundaries – a concern noted by SWT within their representations. As a result SWT suggest buffering of sensitive habitats and indicate a preference for exclusion of planting from the entire LNCS area.

The ES attributes a low sensitivity to the LNCS and a medium magnitude of impact. This combines to result in an impact that is not predicted to be significant. In its 2016 response, FCS agreed with this conclusion but sought reassurance that acid and basic flushes of high importance had been accurately

mapped and excluded from the planting area with appropriate buffers. This information has been provided within the additional environmental information supplied in 2018. The applicant has also committed to have an ecologist on site during the construction phase of the project to ensure species rich open ground habitats are not planted and this will ensure additional protection to sensitive habitats and is a condition of consent (Appendix 11.1, Condition 34). The mitigation built into the design results from the detailed vegetation survey and by default ensures that planting will be limited to the less sensitive areas within the LNCS.

FCS has considered the assessment of impacts in the ES and consultation responses and concludes that because the important habitat types contained within the LNCS are accurately mapped and excluded from the planting area impacts on the LNCS will not be significant.

8.4 Ecology – birds

It was noted that since the breeding bird surveys were carried out in 2006 and 2013 the breeding bird list has been updated within the fourth edition of the Birds of Conservation Concern (BoCC4). BoCC4 contains substantial changes to the Red and Amber lists of species of conservation concern. The principle species of bird for which the ES predicts a significant impact is the skylark (based on high sensitivity and medium predicted magnitude of impact). This species features on the red list of both BoCC3 and BoCC4 and as such the baseline assessment contained in the ES for this species remains valid. The major effect of the proposal would be in the displacement of 89 breeding pairs of skylark which according to the ES represents 0.006% of the British and 0.016% of the Scottish populations. In addition the breeding bird survey report carried out in 2013 concluded that the site is not of high nature conservation value for skylark and supported population densities at the lower end of the range recorded in the UK. Representations received from interested individuals and CMRP detailed concerns in relation to the potential displacement of Skylark from the site and the declining population of the species in the UK. The ES states that the potential impact on the breeding bird assemblage, including skylark, through

damage or destruction of nests during forest operations will be reduced through mitigation, including ensuring the timing of ground preparation avoids potential impacts on nests of breeding birds. Prior to the commencement of works, a method statement for the avoidance of damage or destruction of nests of breeding birds will be prepared and agreed with FCS and this is a condition of consent. (Appendix 11.1, Condition 33).

FCS does not agree with the conclusion reached in the ES and considers that the magnitude of impact is more likely to be minor and consequently not significant. Indirect mitigation in the form of improved skylark habitat in areas that will remain unplanted and in which predator control and removal of grazing are implemented are likely to act as a balancing benefit to the loss of breeding pairs. A predator control plan forms a condition of consent (Appendix 11.1, Condition 19), and whilst not specifically designed for Skylark mitigation, will help sustain skylark population outwith the planted areas.

Overall the ES predicts a change in the balance of bird types with a shift from species that favour open habitat to those that occupy woodland and woodland edge. On this basis, with the exception of skylark, the ES is predicting an effect on breeding birds overall that will not be significant. FCS accepts this overall conclusion and notes that further direct mitigation for the predicted impacts on skylark will result from changes to the planting design that were necessary to mitigate for wildland and landscape. SNH advised that the potential existed for indirect impact on hen harrier, the qualifying interest of the SPA/SSSI, through increased suitable habitat for predators and thus an increase in predator numbers. Similar concerns were raised by others such as CMRP, SYRP, Lochwinnoch Community Council. In compliance with The Conservation (Natural Habitats) Regulations 1994, FCS as the competent authority has formally adopted the Habitats Regulations Appraisal 'Appropriate Assessment' undertaken by the applicant. This document was provided as an annex to the Environmental Statement and consultation on this (with SNH) undertaken in April 2016. SNH advised that any potentially adverse effects on the integrity of the Natura site could be mitigated through a suitable predator control plan which the ES states

will be carried out and will be a condition of consent (Appendix 11.1, Condition 19).

There are known peregrine nesting sites within the boundaries of the Halkshill and Blairpark site. Concern was expressed by CMRP that there has been no successful breeding since the road for the hydro scheme was installed. The ES predicts that, provided planting does not take place too close to peregrine nesting sites and disturbance is avoided prior to and during the breeding season, there will be no significant adverse effects. The ES states that a method statement has been prepared to allow for works to take place closer than 300m from nesting sites. SNH did not comment on peregrine falcon as part of their formal response but the mitigation proposed is sufficient. To ensure this is up to date operational guidance, a revised method statement will be a condition of consent (Appendix 11.1, Condition 32).

Some concerns were raised during consultation with regard to the validity period of the breeding bird survey information and the survey itself (SYRP), but it is on record that the applicant carried out the survey using a methodology agreed with SNH. FCS believes that the survey data remains valid and that no schedule 1 bird species have moved into the project area since the time of the survey and that potential damage or destruction to breeding birds nests can be mitigated (Appendix 11.1, condition 33). In order to ensure the project is carried out whilst the bird survey data remains valid, it is a condition of consent that the project commence within 3 years from the date of consent. (Appendix 11.1, conditions 1 & 2).

FCS has considered the assessment of impacts in the ES and consultation responses and concludes that the impact on Ecology – birds will not be significant. FCS does not concur with the ES assessment of impacts on the breeding Skylark population and concludes that the impact on the breeding skylark population will not be significant.

8.5 Water environment and water yield

8.5.1 Flood Risk

The ES predicts that the proposal will not have a significant impact on the risk of flooding within the Gogo and Rye Water catchments either within the construction (planting) or operational (establishment/harvesting) phases of the proposed project. During the construction phase potentially increased flood risk will be mitigated through the agreement with FCS of and compliance with a detailed ground preparation and drainage method statement (Appendix 11.1, conditions 30 & 31). Surface runoff a topic highlighted by LCC, SYRP and individuals will be managed through Forest & Water Guidelines and the Diffuse Pollution Control Plan (DPCD). SEPA advise that that any surface water runoff issues will be mitigated through the proper implementation of the DPCD and Forest & Water Guidelines. The ES predicts that over the full cycle of the operational phase the proposals will have a net benefit to flood risk as result of the growth of trees in a forest of this scale having the potential to lengthen peak flow flood response (a slowing of the time taken for water to reach the watercourses) and increase catchment flood storage and attenuation capacity (a reduction of the overall volume of water reaching the watercourses). The proposals include a 30m buffer to either side of the water's edge along the Gogo and Greeto waters to reduce the risk in future of large coarse woody debris entering the watercourses and increasing flood risk. SEPA were supportive of the buffer zones proposed as well as the riparian zones containing smaller stature broadleaves and this will be a condition of consent (Appendix 11.1, condition 29). SEPA advice to FCS stated that based on the mitigation measures outlined, the proposals would have at least a neutral effect on flooding in the area and therefore address the issues highlighted in representations from individual respondents and NAC.

FCS agrees with the conclusions drawn from this impact assessment and is satisfied that the proposals will not lead to a significant impact on flood risk and in fact may result in an overall net benefit.

8.5.2 Diffuse pollution

Diffuse pollution can occur as a result of sediment or chemical release caused by ground preparation (ploughing), drainage and road construction during the construction and operational phase or through chemical release following weeding or fertiliser applications during the operational phase.

The ES predicts that the proposal will not have a significant impact on the risk of diffuse pollution within the Gogo and Rye Water catchments either within the construction (planting) or operational (establishment/harvesting) phases of the proposed project. During the construction phase increased risk of diffuse pollution will be mitigated through the agreement with FCS of and compliance with a detailed diffuse pollution control plan (Appendix 11.1, condition 27). The ES also concludes that further mitigation as a result of cessation of past agricultural activities is likely to result from implementation of the proposals.

FCS agrees with these conclusions however the ES and subsequently the 2018 Addenda remain unclear on whether fertiliser applications will be made and as a result the potential impacts that may arise from its use have not been assessed. FCS is of the view that this is a material consideration and representations on this by individuals and LCC and SYRP support this opinion. Application of forestry fertiliser is a material consideration in the assessment of the impact on the risks of diffuse pollution in a sensitive public drinking water catchment and since its use has not been assessed a condition will ensure that fertiliser use is excluded from the consent (Appendix 11.1, condition 28).

FCS agrees with the assessment of impacts in the ES and concludes that impacts on the Water Environment will not be significant.

8.6 Cultural Heritage

Technical Annex A contains a detailed report containing the findings of a desk based and walk over survey of the site. The survey identified a total of 82 sites

of which 28 were new. The majority of the sites were located along watercourses.

The fort at Castle Hill is the only Scheduled Monument within the site. The potential impact of the proposals on this feature of high sensitivity has been assessed as negligible following the application of mitigation. This mitigation includes the inclusion of a significant open ground buffer surrounding the fort with tree planting beyond this being comprised of native trees. The ES concludes that with this mitigation 360 degree views from the fort will be retained throughout the whole cycle of the operation phase of the project. Removal of any encroaching scrub will be implemented as required. Public access to the fort will be retained. FCS agrees with the conclusions of this assessment.

Non-scheduled and air crash sites have been assessed in the ES and the residual impacts identified as negligible as a result of mitigation measures namely the identification of all archaeological features on the site and the delineation of appropriate buffers by a suitably qualified archaeologist. This mitigation for non-scheduled archaeological features is condition of consent (Appendix 11.1, condition 20). The ES identifies a potential risk to the air crash sites through easier access for members of the public/souvenir hunters, and states that the sites will be monitored for interference. This will be conditioned in the consent (Appendix 11.1, Condition 22). In addition, FCS requires that signs be erected at the nearest access points to the sites highlighting the legal implications of sites under the Protection of Military Remains Act 1986. This will be also be a condition of consent (Appendix 11.1, condition 21). The possibility of previously undiscovered features of archaeological interest on the site remains, however adherence to good forest management practices and UKFS historic environment requirements and guidelines will ensure their protection and this is a condition of consent (Appendix 11.1, condition 23). Otherwise FCS agrees with the conclusions contained within the ES and is content that the proposed mitigation is appropriate and concludes that impacts on Cultural Heritage will not be significant.

8.7 Socio – economic

The ES considers the likely changes in direct employment should the major land use of the area change from farming to forestry. Generally it predicts an increase in employment levels over the life of the forest (highest during the establishment and harvesting phases) when compared to continued farming activity. Clearly the nature of employment will change within this but the overall prediction is one of moderate beneficial impact. The potential impact was also considered at a regional and national scale with the proposal having the potential to make a significant contribution to future timber supply in the region during a period of predicted fall in supply – balanced against the loss of the land from agriculture. The ES concluded that this loss would not be significant at either a regional or a national level with potential capacity of both farms representing just 0.8 to 1.1% of the total ewe flock of Ayrshire (not currently stocked to that level). FCS agrees with these conclusions and agrees that the predicted impacts on the agricultural sector will not be significant with some potential benefits to direct employment being a possible outcome.

8.8 Silvicultural site suitability

Assessments of site suitability have shown the site to have limitations in terms of its productive capacity. Despite this FCS is satisfied that these limitations will not compromise the assessment of environmental impacts undertaken within the ES and its subsequent addenda.

8.9 Cumulative/ Interrelated Impacts

Concern was raised locally at the scoping stage and during both statutory consultation periods that the proposals could have a significant negative impact on the viability of Largs as a tourist destination. This impact is assessed in the ES which concluded that the impact is not likely to be significant. The ES suggested that the proposal offers the potential to attract more visitors to the area as a result of the constructed road network within the forest giving access to a wider range of users, including mountain bikers.

In its letter to the applicant in 2016 FCS highlighted that in its view there was a strong link between the local concerns over the proposals as they related to the important local sites such as Greeto Bridge and the high hilltops and the feeling amongst sections of the business community that tourism would be affected by these same proposals. At that time FCS considered that if mitigation of the predicted impacts on the core path and other locally sensitive areas was addressed in a revised planting scheme, then concerns over impact on tourism would largely be dispelled and no further assessment would be likely to be required.

The revised design reduces the extent and density of planting on the slopes and hilltops immediately behind Largs. Changes to the design have meant that the Cauld Rocks and the immediate vicinity has been kept open and unplanted. Sitka spruce has been removed from the hilltop immediately behind Largs and replaced with lower density native broadleaves. The micro design of the scheme along the core path has also been improved with conifer planting removed from south of the Core path in the Gogo Valley and Sitka spruce reduced to the immediate north of the core path. The proposed twenty metre variable tree free buffer either side of the core path allied to the aforementioned design changes will result in a varied woodland experience whilst protecting the important views out to the Firth of Clyde.

FCS considers the access opportunities in the vicinity of the core path will be further improved with the provision of 3.3 km of formal paths as part of the project. This will allow access to the hilltop views out to Cumbrae and Arran. FCS is satisfied that these design changes mean that no significant impacts will occur on local landscape character, visual resource and access to the core path and Greeto Bridge area and consequently the impacts on Largs as a tourist destination will not be significant and could be positive in the medium to long term.

STG commented on the potential fire risk to Largs resulting from the proposals. Whilst the areas in immediate proximity to Largs are largely broadleaved which usually pose a lower fire risk, to ensure any risk to surrounding properties is minimised a fire plan will be prepared and this is a condition of consent (Appendix 11.1, condition 6).

A representation referenced the potential for impacts on services (cabling/piping) or water supplies to the Cockmalane property. Good practice dictates that these should be identified prior to operations taking place and this is a condition of consent (Appendix 11.1, condition 7).

9 Summary and conclusions

In considering whether to grant consent for the proposed project, FCS concern has been to establish whether the project would result in any significant environmental impact in relation to all of the reasons identified for the project requiring consent, but particularly the primary reasons related to landscape, priority habitats, access and amenity.

The information contained in the ES and the 2018 Addenda has been examined in detail, consultees' responses have been investigated and further information and advice sought to determine whether the evidence presented by the applicant in the ES was fit for purpose. The conclusion of this process was that the information presented in the ES was generally sound and of an adequate standard on which to base consideration of the impacts of the project.

Taking into account all of the information provided by the applicant and stakeholders and on the basis of our assessment as set out above, we are satisfied that the woodland creation proposal at Halkshill and Blairpark is not likely to have a significant environmental impact in relation to any of the matters identified as reasons for requiring consent.

10 Forestry Commission Scotland Decision

Having considered the ES, national and regional policy contexts, the advice received from statutory and other bodies and the views of consultees, **FCS grants consent for the project subject to the conditions below.**

11 Appendices

11.1 Conditions

General

1. Work in relation to the project shall commence within three years of the date of this consent.

Reason: To ensure the project is implemented in a reasonable time in order that the bird survey data remains a reliable basis for the decision.

2. Ground preparation and initial planting must be completed within three years of the date of this consent with subsequent maintenance works to be completed within ten years of the date of this consent.

Reason: To ensure the project is implemented in a reasonable time in order that the bird survey data remains a reliable basis for the decision.

3. All planting will be carried out in accordance with FCS Final Approved Map 1 (Species map 8 25/1/18).

Reason: To ensure delivery of the project as described in the Environmental Statement.

4. All roads will be constructed in accordance with Environmental Statement Forest Road Layout in the FCS Final Approved Map 1. The applicant will be responsible for ensuring that they comply with Planning (Permitted Development) Regulations and liaise with North Ayrshire Council accordingly.

Reason: To ensure designed in mitigation for landscape and water environment effects is delivered.

5. All borrow pits will be designed, located and restored following works in accordance with FCS Final Approved Map 2. Borrow pits should not exceed

1 metre in depth or 0.25ha in area. A maximum of 12 borrow pits will be excavated. Borrow pits must be reinstated at the end of road construction period as per Environmental Statement Addendum 3 "Response to SEPA objections", pg. 23.

Reason: To ensure designed in mitigation for the effects on the water environment is delivered.

6. Prior to the commencement of works underground services and water supplies to the property at Cockmalane are to be identified and protected and the details, along with a map, must be supplied to FCS.

Reason: To prevent damage to underground services and water supplies to the property at Cockmalane.

7. Within two years of commencement of works a fire plan will be prepared and agreed with FCS.

Reason: To minimise the risk of damage from fire to properties close to the project area.

Access

8. Prior to the commencement of works, the alignment and specification of all deer fencing and associated access gates is to be submitted to FCS for approval. In coming to a decision, FCS will seek advice from North Ayrshire Council. No works should commence until approval has been provided.

Reason: To ensure that the required access provision to and from the site is maintained.

9. Prior to the commencement of works, the specifications, quantities, locations and timing of delivery of all constructed footpaths, entry points,

gates, signs, picnic benches and seating will be provided and agreed with FCS. In coming to a decision, FCS will seek advice from North Ayrshire Council. No works should commence until approval has been provided.

Reason: To ensure the designed mitigation for impacts on access provision is delivered.

10. Within three years of the commencement of works the creation of a minimum of 3300m constructed and waymarked paths will be completed. The route of the paths will accord with the mapped description provided in the Halkshill and Blair Park FCS Final Approved Maps 3 and 4, or any subsequent updated plan as per Condition 10.

Reason: To ensure the designed mitigation for impacts on access provision is delivered.

11. Within three years of the commencement of works the installation of all signs, interpretation panels, picnic benches and seating will be completed. The recreational infrastructure will accord with the mapped description provided in the Halkshill and Blair Park Environmental Statement FCS Final Approved Map 4 (appended below), or any subsequent updated plan as per Conditions 9 and 10.

Reason: To ensure the designed mitigation for impacts on access provision is delivered.

12. Prior to year five following the commencement of works an access maintenance plan will be prepared and agreed with FCS.

Reason: To ensure that the access provision (formal and informal) is fit for purpose throughout the duration of the Project.

13. A variable tree-free buffer zone of a minimum twenty metre width will be created either side of the whole length of the core path route and maintained open during the life of the Project.

Reason: To minimise impacts on the visual amenity and to maintain current views from the core path to the Firth of Clyde and Cumbrae.

14. A tree-free area will be maintained around the Cauld Rocks as shown on the planting plan in FCS Final Approved Map 1.

Reason: To mitigate impacts on local amenity and to ensure that this area remains suitable for both rock climbing and other outdoor pursuits.

15. Prior to the commencement of works the Terms of Reference and the membership for an access management group (or sub group of the NAC Access Forum or similar) comprising landowners' representative and a range of local relevant stakeholders including North Ayrshire Council must be agreed with FCS. The access group will remain active for as long as it is required by stakeholders.

Reason: To ensure that local stakeholders input into ongoing access management to and within the site is facilitated.

16. For the first 10 years following the commencement of operations on site, the developer shall meet with the access management group (or similar) at least annually, with a record of the meeting prepared by the developer and submitted to FCS within 4 weeks of the date of the meeting.

Reason: To ensure that local stakeholders input to the management of access to and within the site is ongoing throughout the duration of the project.

17. Prior to the commencement of works a transport plan detailing the anticipated use of all types of vehicles associated with this project both entering and leaving the site from all access points will be prepared and submitted to FCS for approval. FCS will liaise with North Ayrshire Council on the Plan prior to approval.

Reason: To ensure disturbance and damage to private properties and their occupants by vehicles accessing the site as part of this project is minimised.

18. Within 3 years of commencement of the project a long term woodland management plan for both existing and newly planted woodland areas of high amenity value will be prepared and submitted to FCS for approval.

Reason: To ensure that systems other than clearfell are utilised in the areas of higher amenity value e.g. Gogo Glen core path.

Special Protection Area

19. Prior to the commencement of works a predator control plan must be submitted to FCS for approval. The plan must detail control measures for any predators of hen harrier and must be implemented throughout the duration of the afforestation project. In coming to a decision, FCS will seek advice from SNH.

Reason: To ensure any adverse impacts on the SPA arising from an increase in predator numbers are adequately mitigated.

Cultural Heritage

20. Prior to the commencement of works all archaeological assets and associated buffers within the entire project area that are identified for protection within the Environmental Statement must be clearly marked on the ground by a suitably qualified archaeologist. Any reduction in the area for marking on the ground must be agreed with FCS in advance.

Reason: To ensure the protection of archaeological assets.

21. Prior to the commencement of works on site, the material, specification, text and location for the signage to provide suitable warning to members of the public of the legal implications of interfering with the military crash

sites must be submitted to FCS for approval and implemented following approval. This relates to the Protection of Military Remains Act 1986.

Reason: To help prevent damage to the military aircraft crash sites.

22. Prior to the commencement of works, the air crash sites (11AG and 15AI) will be monitored using fixed point photography to set a pre-operational baseline. Images will be captured for a period of 5 years following commencement of works to identify whether vandalism is an issue. If there is evidence of damage, the developer must discuss appropriate action with FCS.

Reason: To help prevent damage to the military aircraft crash sites.

23. UKFS Historic Environment Requirements and Guidelines must be applied.

Reason: To ensure that any undiscovered/ unknown historic features are protected.

Water environment

24. Where it is not possible to avoid deep peat or GWDTE roads will be floated where crossing M20 and M6 NVC habitat types. In all other locations the road will be cut with porous construction and where necessary culverts to ensure hydrological connectivity of GWDTE installed. Excavation depths will not exceed 1 metre. The approach to road construction will follow that outlined in Addendum 3 (and Addendum 3 Table 4).

Reason: To ensure that the integrity of all M20 and M6 habitats are protected.

25. A minimum twenty metre buffer will be applied between peatland, other wetland areas and any tree planting.

Reason: To ensure the integrity of any peatland and other wetlands is protected.

26.The methodology described within Environmental Statement Annex 4a to protect species rich habitats, flushes and springs (GWDTE) and the buffers/mitigation outlined are to be implemented.

Reason: To ensure these important habitats are protected.

27.Prior to the commencement of works a Diffuse Pollution Control Plan (DPCP) will be prepared and approved by FCS. No work will be undertaken until the plan has been approved.

Reason: To ensure the protection of the water environment during the construction and operational phases of the project.

28.There must be no application of fertiliser within the boundary area of the project.

Reason: The use of fertiliser was not specified within the project description and any adverse environmental effects that may result from the application of fertilisers were not assessed with the Environmental Statement.

29.The methodology to reduce the risk of large woody debris entering the watercourses as described in the Environmental Statement Technical Annex G must be followed.

Reason: To reduce the risk of flooding as a result of bridges and culverts becoming blocked by large woody debris.

30.The general approach to ground preparation and drainage as described in the Environmental Statement Technical Annex G must be followed.

Reason: To ensure the protection of the water environment during and after delivery of the project.

31. Before the commencement of works a ground preparation and drainage method statement must be prepared and submitted to FCS for approval. No works will be undertaken until the Plan has been approved.

Reason: To ensure the protection of the water environment during and after delivery of the project.

Landscape

See condition 3.

Ecology

32. Prior to the commencement of works a method statement for the prevention of disturbance to peregrine falcon must be prepared and agreed with FCS. This will include operational guidance that will be agreed with SNH to avoid disturbance to peregrine prior to and during the breeding season.

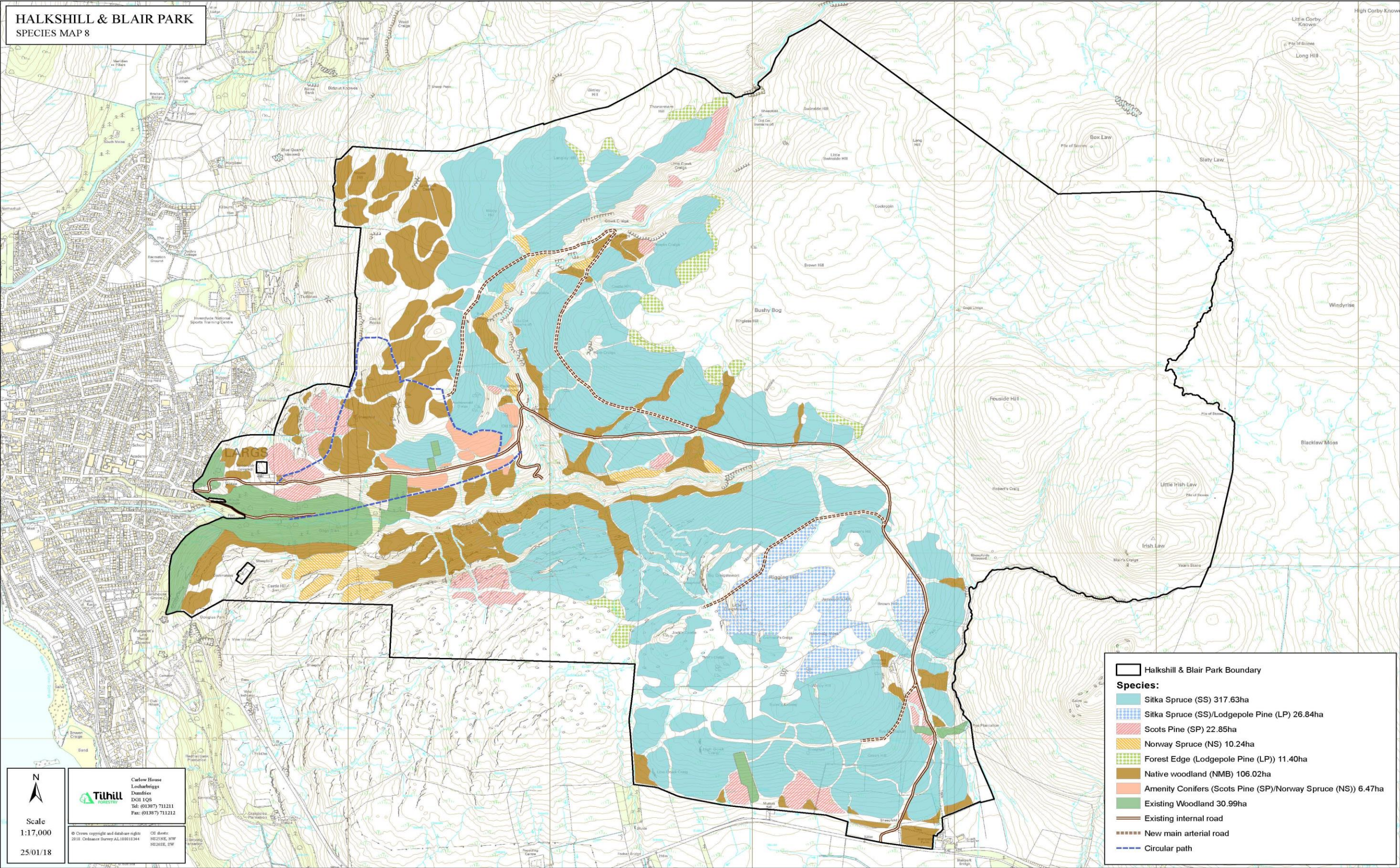
Reason: To minimise the impact of disturbance to peregrine falcon as a result of forest operations.

33. Prior to the commencement of works a method statement for the avoidance of damage or destruction of nests of breeding bird species will be prepared and agreed with FCS.

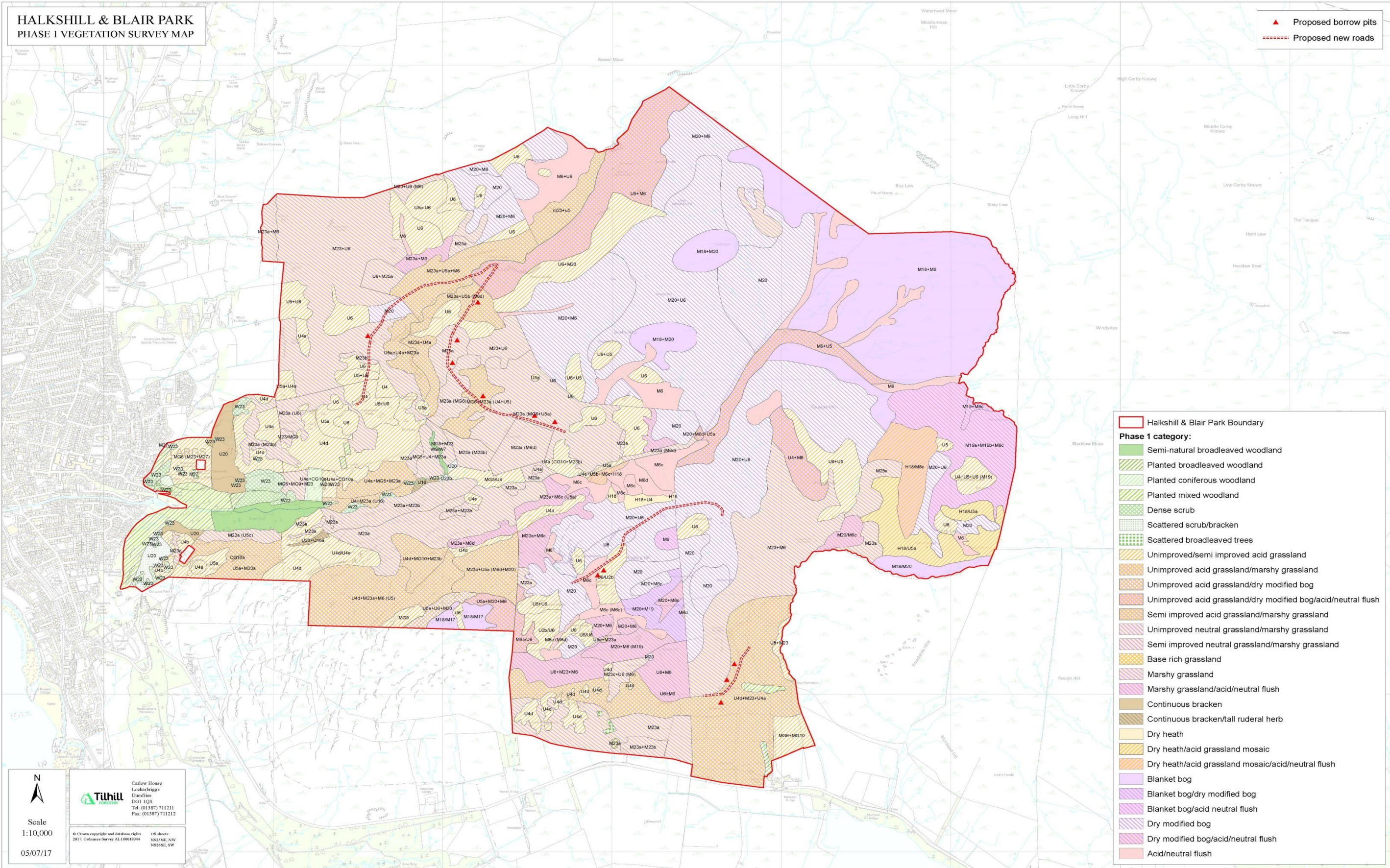
Reason: To prevent potential for damage or destruction of nests during forest operations.

34. Prior to commencement of works a suitably qualified ecological clerk of works (ECW) must be appointed with agreement of FCS. Mid to lower valley slopes generally contain grassland and other habitats with greater species diversity. Where these have not been identified and buffered through the target notes approach, these areas must be walked ahead of any ground preparation, drainage and planting by the ECW and areas of importance identified and buffered from disturbance.

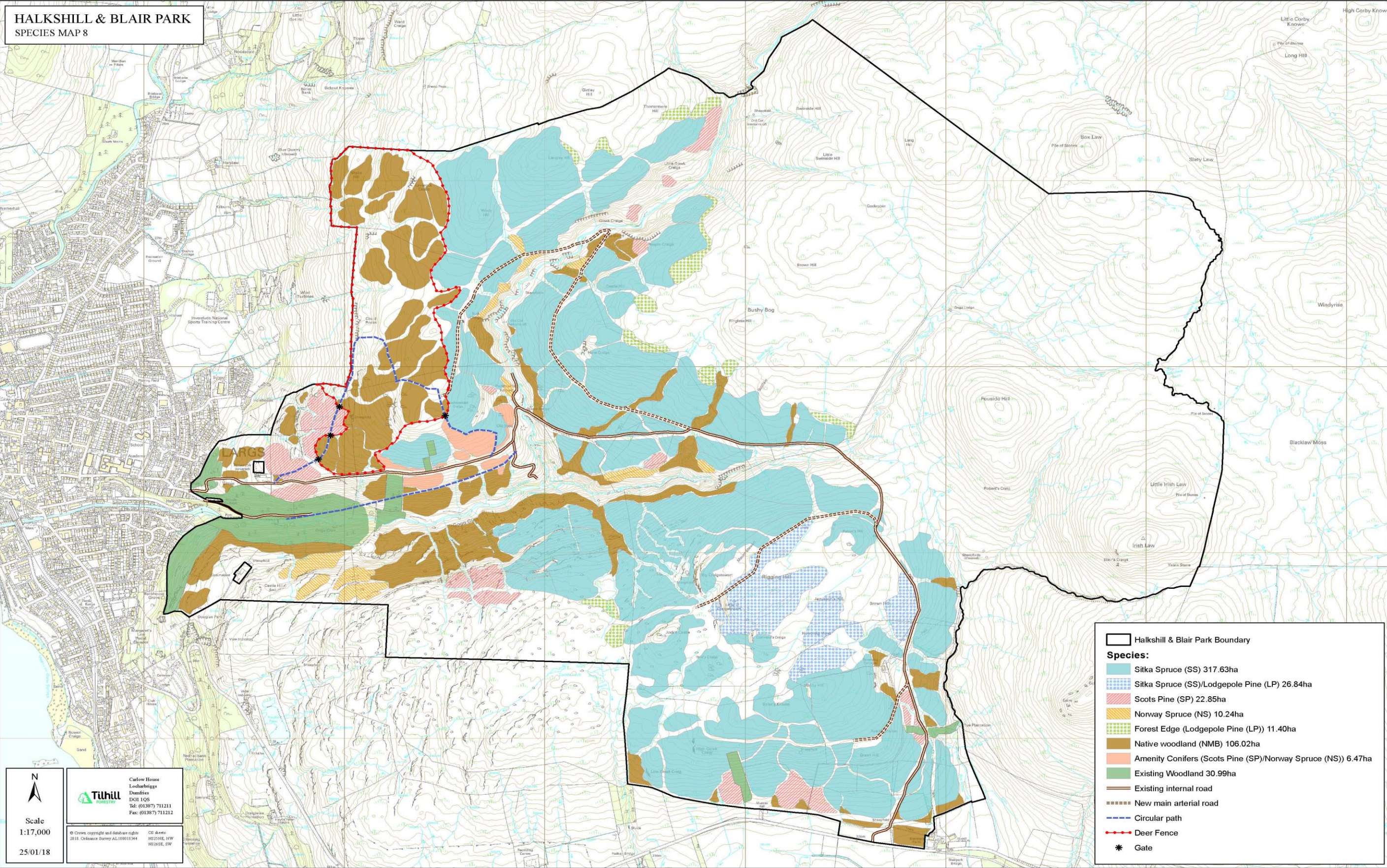
Reason: To prevent disturbance to and planting of areas of high conservation value.

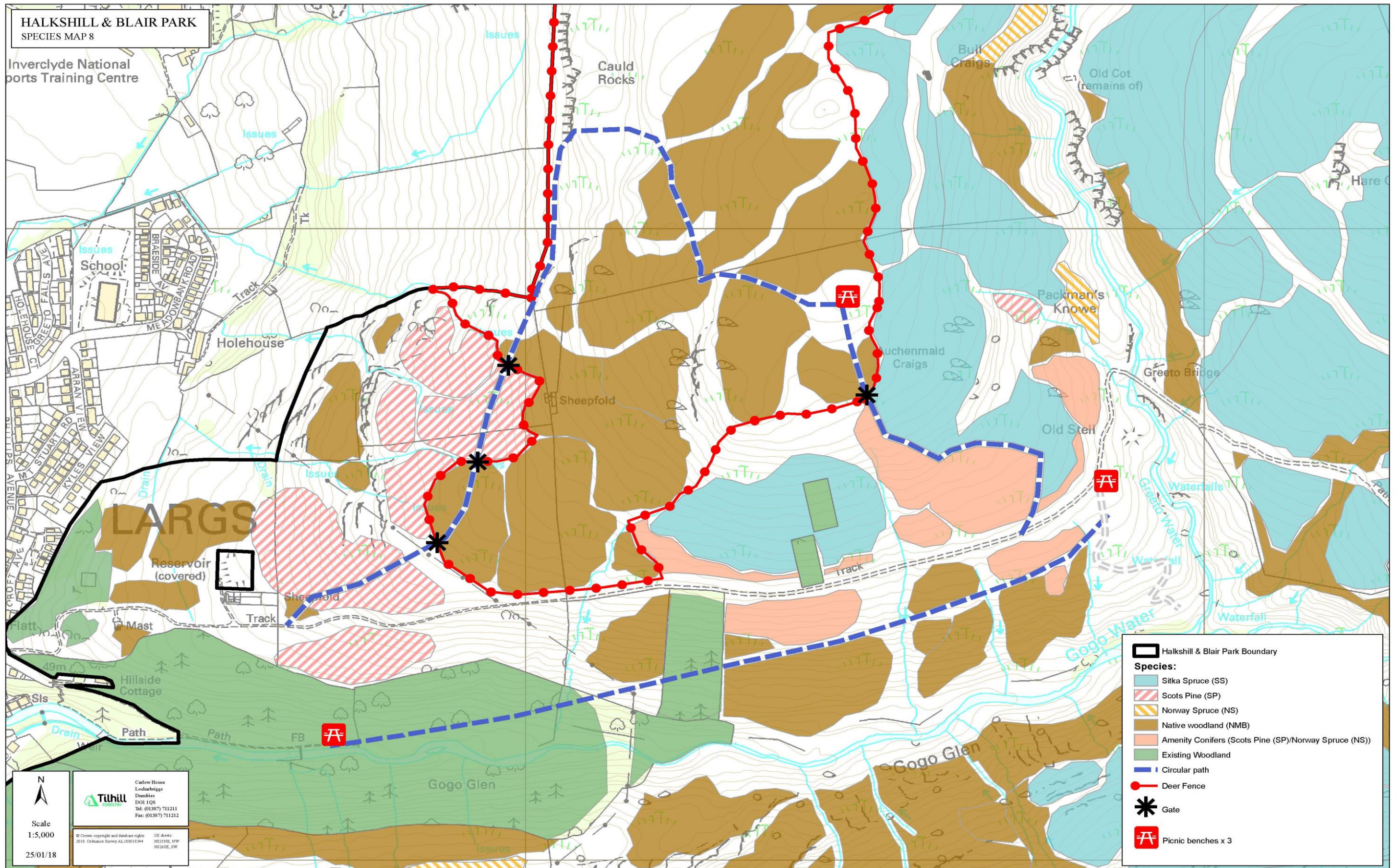


FCS Final Approved Map 2 approved road layout and borrow pit locations.



FCS Final Approved Map 3 Planting Proposal Map with access routes and fence lines.





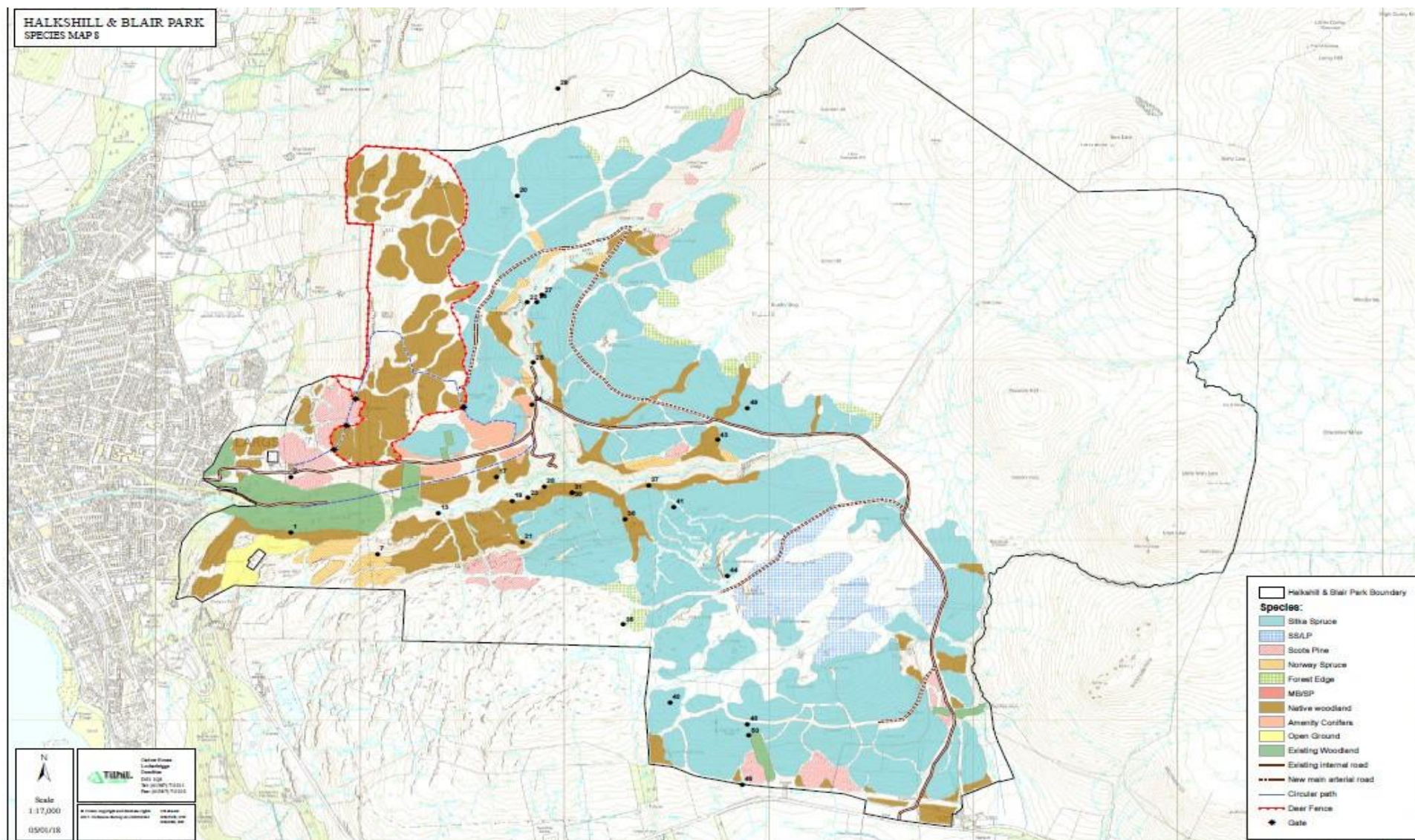
Addendum 3 Annex 4a Buffering of Sensitive Habitats

Annex 4a: GWDTE Target Notes proposed for buffering (source: HH/BP habitat survey). September 2017 (updated February 2018).

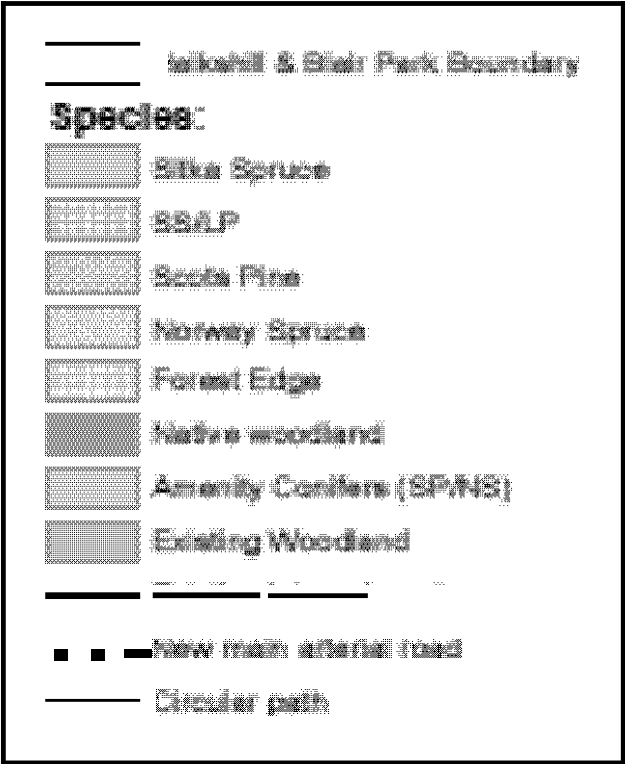
The approach to buffering is based on the example shown in Annex 5.

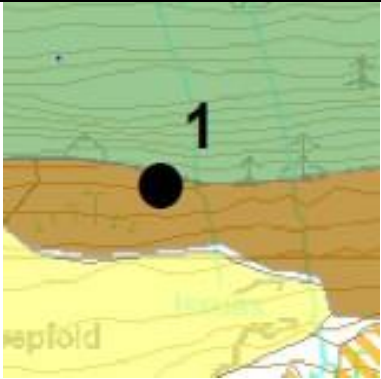


Buffers will be erected using canes with marker tape and a photograph of each will be taken. The buffers take into account the need to maintain light into these communities by assessing the final height and spread of the proposed woodland canopy. As most of the sensitive vegetation types are groundwater-fed, the buffers will also take into account the need to maintain their hydrological integrity and therefore protection from any proposed ground preparation activities.

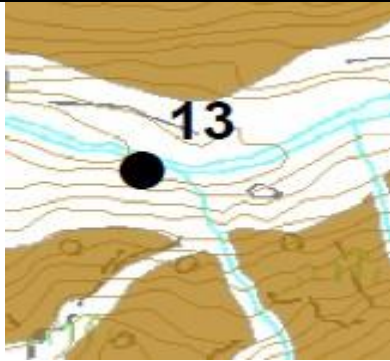


The proposed planting design with Target Notes is shown below and in Annex 4b:

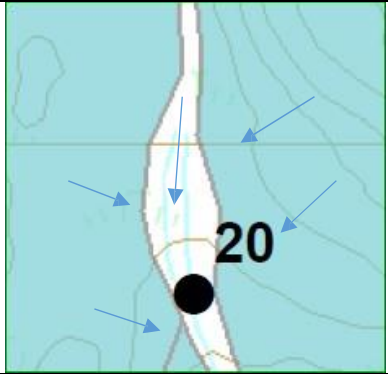




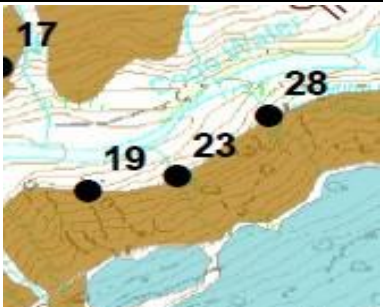
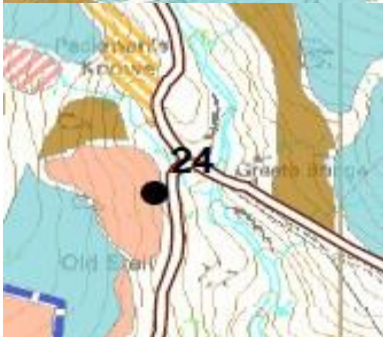


KEY to planting proposals


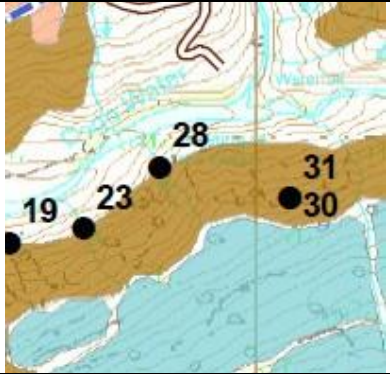



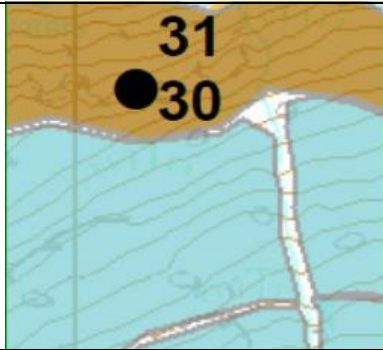

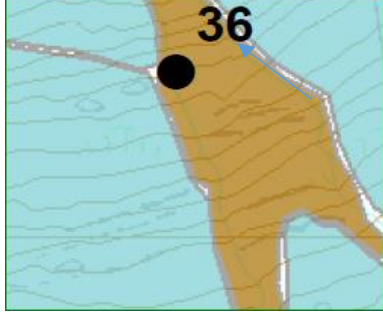

No.	Easting	Northing	Notes	Current upslope planting design within 100m – capitals are initials of species in key	Target note planting detail and slope (blue arrows). Each map is c.200 m x 200 m	Mitigation option
1	221659	659038	Lower field of M23a rush pasture. Species-rich. Flushed at this grid reference, base-rich. Marsh arrowgrass (<i>Triglochin palustris</i>), marsh lousewort (<i>Pedicularis palustris</i>), marsh marigold (<i>Caltha palustris</i>), dioecious sedge (<i>Carex dioica</i>), whorled caraway (<i>Carum verticillatum</i>), creeping willow (<i>Salix repens</i>), <i>Calliergonella cuspidata</i> . Flushing continues downhill through woodland. A few small breaks of U5 in the marshy grassland, but these too are flushed and species-rich.	NW/OG		Marked buffer to prevent ground prep/broadleaf planting on flush.
2	221659	659351	Probable spring just beneath very small rocky knowe. Very small area, just a few square metres.	SP/OG		Within open ground component but assess proximity of SP.
7	222084	658922	Small sedge mire/flush surrounded by <i>Juncus effusus</i>	NS		Marked buffer to prevent ground prep/conifer planting on flush.

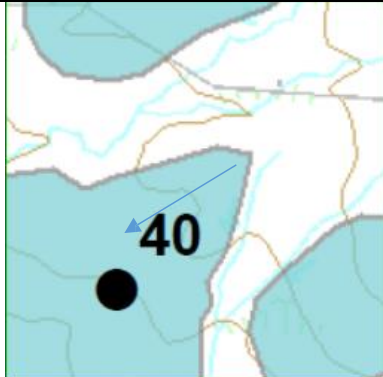

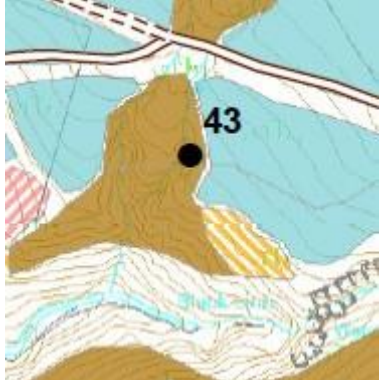
13	222381	659150	Flush under ash tree, and bryophytes on trees locally. <i>Conocephalum conicum</i> , <i>Cratoneuron filicinum</i> , <i>Kindbergia praelonga</i> , <i>Eurhynchium striatum</i> , <i>Plagiochila asplenioides</i> , <i>Metzgeria furcata</i> , <i>Sciuro-hypnum plumosum</i> , <i>Platyhypnidium riparioides</i> , <i>Palustriella commutata</i> , <i>Ctenidium molluscum</i> , <i>Racomitrium aciculare</i> , <i>Porella arboris-vitae</i> , <i>Dichodontium flavescen</i> , <i>Chiloscyphus polyanthos</i> , <i>Metzgeria furcata</i> .	OG		Within open ground component but assess proximity of planted native trees.
17	222666	659346	Hillside flushes in places, M32, species-rich and enriching the surrounding marshy grassland.	NW		Marked buffer to prevent ground prep/broadleaf planting on flush.
19	222742	659216	Base-rich flush	NW/OG		Marked buffer to prevent ground prep/broadleaf planting on flush.

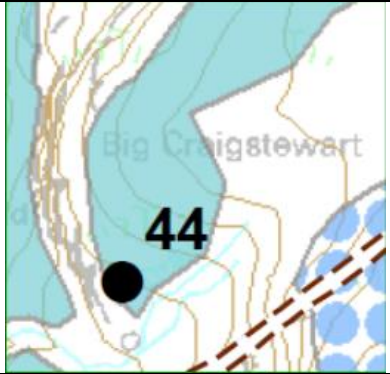
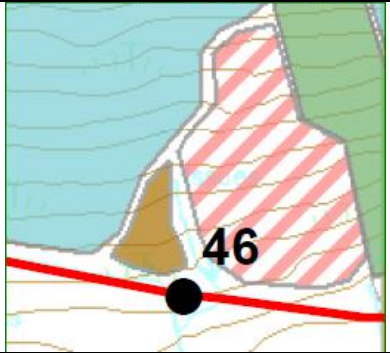
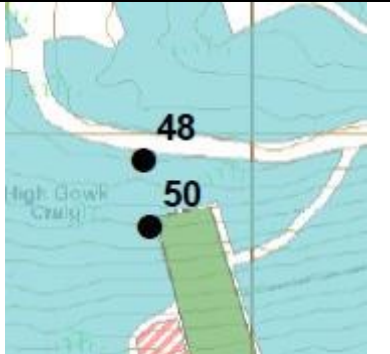
20	222766	660909	Wet acid flush (M6c) coming off bog.	OG/SS		Stream fed. Buffer and mark out to prevent damage from adjacent ground preparation activities and potential for shading.
21	222792	658987	Mossy saxifrage (<i>Saxifraga hypnoides</i>) abundant in rushes.	NW		Marked buffer to prevent ground prep/broadleaf planting on flush.
22	222816	660317	M10 stony flush at base of slope	OG/SS		Assess proximity of woodland planting.

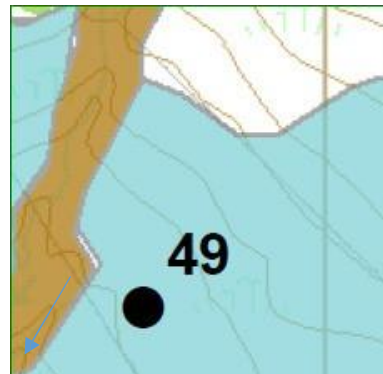
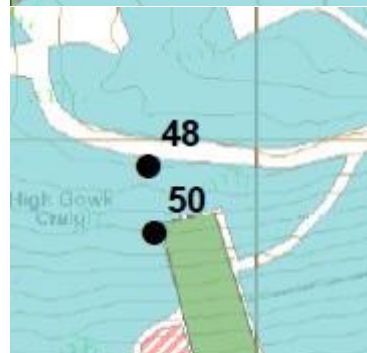
23	222819	659231	Base-rich flush with mossy saxifrage, (<i>Saxifraga hypnoides</i>)	NW		Marked buffer to prevent ground prep/broadleaf planting on flush.
24	222840	659751	Rush pasture, M23a, above track by bridge. Species-rich, lots of herb associates including greater bird's foot trefoil (<i>Lotus pedunculatus</i>), marsh hawk's beard (<i>Crepis paludosa</i>), bugle (<i>Ajuga reptans</i>), yellow loosestrife (<i>Lysimachia nemorum</i>), meadowsweet (<i>Filipendula ulmaria</i>) and whorled caraway (<i>Carum verticillatum</i>). Sedgy in areas with small sedge species.	Amenity conifers (SP/NS)		Marked buffer to prevent amenity conifer planting on rush pasture.
25	222845	659981	Species-rich rush pasture, flushed, on left flank of river (looking downstream)	OG		Check to see if flush is still extant following construction of hydro road.
26	222862	660322	M10 flush	OGS/SS		Push SS back from flushes and buffer to ensure no planting.

27	222888	660357	M32 flush	OG/SS		Push SS back from flushes and buffer to ensure no planting.
28	222899	659295	Base-rich flush with mossy saxifrage, (<i>Saxifraga hypnoides</i>)	OG/NW		Marked buffer to prevent ground prep broadleaf planting on flush.
30	223034	659263	Mossy saxifrage, (<i>Saxifraga hypnoides</i>)	NW/SS		Marked buffer to prevent ground prep/broadleaf planting on flush.

31	223034	659263	Base-rich flush with mossy saxifrage, (<i>Saxifraga hypnoides</i>)	NW		Marked buffer to prevent ground prep/broadleaf planting on flush.
35	223286	658527	Flush at edge of blanket bog, species-rich. Swampy underfoot. Lots of bogbean (<i>Menyanthes trifoliata</i>) with water horsetail (<i>Equisetum fluviatile</i>), marsh arrowgrass (<i>Triglochin palustris</i>), bulbous rush (<i>Juncus bulbosus</i>), bog asphodel (<i>Narthecium ossifragum</i>), white sedge (<i>Carex canescens</i>), common butterwort (<i>Pinguicula vulgaris</i>) as well as sward of small sedges typical of M10.	OG		Check.
36	223295	659116	Neutral flush, M32	NW		Marked buffer to prevent ground prep/broadleaf planting on flush.
37	223410	659302	Flush with <i>Sphagnum contortum</i> , tawny sedge (<i>Carex hostiana</i>) and whorled caraway (<i>Carum verticillatum</i>).	NW		Marked buffer to prevent ground prep/broadleaf planting on flush.

40	223515	658097	Break in soft rush cover, nice sedgy flush with small sedges (<i>Carex nigra</i> , <i>C. flacca</i> , <i>C. demissa</i> , <i>C. panicea</i>), marsh lousewort (<i>Pedicularis palustris</i>), common cotton grass (<i>Eriophorum angustifolium</i>), variegated horsetail (<i>Equisetum variegatum</i>), marsh horsetail (<i>E. palustre</i>), lesser spearwort (<i>Ranunculus flammula</i>), <i>Philonotis</i> sp., and <i>Palustriella commutata</i> .	SS		Marked buffer to prevent ground prep/conifer planting on flush.
41	223532	659183	M10 flush	SS		Marked buffer to prevent ground prep/conifer planting on flush.
43	223748	659552	Seepage at head of 'side' valley, bryophytes and hepatics.	NW		Marked buffer to prevent ground prep/broadleaf planting on flush.

44	223795	658798	Flush vegetation in M23a with <i>Philonotis</i> sp., common butterwort and small sedges.	SS/OG		Marked buffer to prevent ground prep/conifer planting on flush.
46	223867	657640	Species-rich M23a with whorled carroway (<i>Carum verticillatum</i>), bugle (<i>Ajuga reptans</i>), greater bird's foot trefoil (<i>Lotus pedunculatus</i>), devil's bit scabious (<i>Succisa pratensis</i>), ragged robin (<i>Lychnis flos-cuculi</i>), carnation sedge (<i>Carex panicea</i>), flea sedge (<i>Carex pulicaris</i>) and marsh bedstraw (<i>Galium palustre</i>). In old enclosures.	NW/SP		Assess catchment
48	223894	657974	Flush. Weakly base-rich.	SS		Buffer and mark out

49	223894	659730	Large area of rush pasture (M23a) on gentle slope. Alternates between stands of sharp flowered rush (<i>Juncus acutiflorus</i>) and soft rush (<i>Juncus effusus</i>).	SS		Marked buffer to prevent ground prep/conifer planting on flush.
50	223899	657911	Nice flushed area with star sedge (<i>Carex echinata</i>) and flea sedge (<i>Carex pulicaris</i>), also <i>Calliergonella cuspidata</i> , common butterwort (<i>Pinguicula vulgaris</i>), fen bedstraw (<i>Galium uliginosum</i>) and ragged robin (<i>Lychnis flos-cuculi</i>).	SS		Marked buffer to prevent ground prep/conifer planting on flush.

Environmental Statement v3 Technical Annex G- Approach to Large Woody Debris

Halkshill and Blair Park – approach to Large Woody Debris

Background

SEPA were consulted on the draft Hydrology Chapter and the Diffuse Pollution Control Plan of the Halkshill and Blair Park Environmental Statement on the 29/8/14 prior to it being issued as part of the statutory consultation process. They provided detailed written comments on these draft documents on the 6/10/14 where they raised the potential impact of Large Woody Debris emanating from the site as a result of tree planting (and future harvesting operations) and the potential risk this poses to increasing downstream flood risk.

SEPA note that “the application site (or parts thereof) lies within the medium likelihood (0.5% annual probability or 1 in 200 year) flood extent of the SEPA Flood Map, and may therefore be at medium to high risk of flooding”. SEPA cite a number of recorded flood events where blocked culverts were thought to exacerbate the problem. They conclude that “this application could therefore increase the potential for Large Woody Debris to exacerbate flooding if not managed appropriately”.

This paper aims to clarify how the risk posed by Large Woody Debris will be addressed by (a) increased buffer zone widths, (b) riparian woodland species choice and (c) response to topography.

Watercourse buffer zones

The UK Forestry Standard (FC 2011) defines the minimum standards required for managing forests in the UK, with Forests and Water Guidelines (5th Edition) specifying the minimum acceptable buffer distances from water courses, to protect the water habitat from potential adverse impacts arising from forest operations on adjacent land:

Watercourse width	Minimum Buffer Width
Up to 1m	5m
1 to 2m	10m
Over 2m	20m

For woodland creation projects, this means setting back soil cultivation and tree planting for at least the minimum distance as specified above. In the case of the Halkshill and Blair Park, the intention (outwith the defined buffer zones) was to create a 50/50 mix of semi-natural broadleaf woodland and open space along the riparian zones. The intention here was to create dappled shade for the watercourses, to act as a source of nutrients to sustain riparian ecology and potentially to assist with attenuating peak flood waterflows.

Given the potential for exacerbating flood risk associated with this project, it would seem that this approach poses an unacceptable risk. SEPA would recommend a more precautionary approach using “a higher percentage of open space within the buffer zones, and potentially additional buffers strips where factors like wind or topography could result in additional pathways for Large Woody Debris entering the watercourse and being carried downstream”.

Response to SEPAs concerns.

(a) Increased buffer zone size

In response to the concerns raised by SEPA, the buffer zones along the full length of both the Gogo Water and Greeto Water have been increased to 30 metres either side of the watercourses. No planting will take place within this buffer zone. This buffer will be marked on the ground prior to any project implementation.

(b) Riparian woodland species choice

Species choice within the riparian zone outwith the defined buffer will be trees of small stature. This will include: Downy birch, Silver birch, Rowan, Goat willow, Hazel, Hawthorn and Bird cherry. These tend to mature at 10-12m height, depending on soil type and exposure.

The native broadleaved stands will be managed for biodiversity, with either low or no management intervention, with the aim of these areas acting as an additional barrier to Large Woody Debris in the future.

(c) Response to topography

The topography has also determined the design width of buffer strips, where steeply-sloping, incised watercourse channels will naturally form the unplanted buffer zones. For the purposes of controlling the risk associated with Large Woody Debris entering watercourses there will be no planting of broadleaves on slopes greater than 30 degrees.

Review Meeting

Should this project proceed, both SEPA and Scottish Water will be invited out to site to examine the proposed buffer zones, to satisfy themselves that the agreed principles are being met, the minimum standards exceeded and that the site drainage is working as expected.

Timber Harvesting

Although timber harvesting is 30 years in the future, this is a key activity that inherently generates woody debris. Harvesting technology has advanced significantly over recent years in respect of the capability of mechanised techniques, equipment and work standards, and these are likely to significantly evolve further by the time timber harvesting commences at Halkshill and Blair Park.

Management to prevent woody debris from timber harvesting will include selection, sizing and sequencing of small felling coupes, particularly along main watercourse boundaries, applying additional increased buffer zone restrictions and use of the most appropriate technique to minimise generation of Large Woody Debris.

John Gallacher
UPM Tilhill
24th October 2014

