

Minutes of Warblaw EIA Scoping Meeting

Date: 10/08/2025

Location: The Buccleuch Centre, Langholm

Chaired by: Neil Murray – Scottish Forestry

Minutes by: Atmos Consulting, on behalf of Scottish Woodlands

In Attendance:

Name of Attendee	Organisation
Attended	
Neil Murray/Lenka Zaoralova/	Scottish Forestry
Arran Smith/Charlotte Cavey-Wilcox/Ali McTavish/Dafydd Powell	Scottish Woodlands
Niamh Tait	Atmos Consulting
	NatureScot
	Save Warblaw Action Group
	Langholm Initiative
	Neighbouring Resident
Apologies	
	RES – Bloch Wind Farm
	Arqiva - Pegasus Group - Mast
	Galloway Fishery trust
	South Scotland Golden Eagle project
	Timber transport / D&G Roads
	D&G Raptor Study Group
	HES
	RSPB
	SEPA
	D&G Archaeology

	Scottish Water
	Local Deer Management Officer
	SGRPID
	Langholm Alliance
	Neighbouring Resident
	Scottish Power
	Local Running group (Muckle Toon Joggers)
	Eskdalemuir Deer Management Group
	D&G Landscape and Biodiversity
Countryside Development Officer	
Langholm, Ewes, and Westerkirk Community Council, Secretary	

* Some of those unable to attend instead sent in a written response. The written responses have been appended to these minutes.

1 Welcome

Scottish Forestry welcomed everyone, gave a bit of detail about the project and highlighted that the Developer Scottish Woodlands on behalf of James Jones & Sons Ltd have elected to go straight to Scoping and undertake an Environmental Impact Assessment (EIA) due to the sensitive nature of the Site.

Scottish Forestry set out the structure and purpose of the meeting, where Scottish Woodlands would first give a presentation with project specific details, then there would be a roundtable after where all attendees could voice any concerns/ key points they would like to see addressed within the Scoping Report. The purpose of the meeting is to identify significant issues to allow us to issue a Scope and Opinion Report which will then lead to an EIA Report.

Scottish Forestry highlighted that any views issued today will not prevent you from expressing views later on in the process. The Scoping Report will then be sent to Scottish Forestry.

2 Scottish Woodlands – Project Information Presentation

Scottish Woodlands delivered a presentation providing attendees with project details; the key points are summarised below:

- Description of the Site;
- Description of the Site;
- Main objectives of the proposal – afforestation to provide a sustainable and local timber supply;
- Background information on the Site;
 - Purchased in 2019 by James Jones & Sons Ltd;
 - the Site comprises an area of approximately 1051 hectares (ha);
 - The project was initially started by Till Hill who undertook some surveys and did initial design work.
 - Scottish Woodland took over the project in 2022 and undertook further surveys to inform the design better;
 - Details of surveys undertaken to date and further surveys commissioned;
 - Details of engagement with stakeholders to date;
 - Benefits of the scheme; and
 - Key Issues Raised;
- The design has been re-worked since the 2019 design and will continue to change based upon stakeholder feedback, the Scoping opinion and further survey results.
- The scheme overall has been reduced by c. 200 ha since initial designs.

The presentation from Scottish Woodlands has been attached to these minutes.

3 Key Points Discussed

Comments from stakeholders have been presented under topic headings which are not set out by any means of importance. It should be noted that multiple people raised the same concerns and as such these are only listed once.

Landscape and Visual

- The current development proposals have generated substantial feedback from the local community confirming a clear view that Langholm is being surrounded and strangled by coniferous plantations.
- Have seen the 25-year projected images of the site from various angles and consider the landscape change to be overwhelming. To enable a comprehensive view of the

proposals to be formed we request that the developer provides a virtual drone animation of the proposal. We have already obtained drone footage of the Cockplay plantation and consider this to be visually disfiguring and has a massively detrimental effect on the area.

- Note that the current landscape analysis adopted by the developer indicates low susceptibility however we commissioned an independent consultant to review this and this review confirmed that the effect on wider local landscape was clearly adverse
- The development proposals will result in a visual impact on Hill walkers.
- The development proposals will result in a visual impact from nearby properties.
- Believe forests are sterile and dark – visual impact.

Heritage and Archaeology

- Concerns about the heritage assets on the ground currently- intervisibility, rig and furrow.
- Concerns about the heritage survey undertaken, did not feel the rig and furrow has been given enough consideration and raised that they had experience in woodland planting projects where restrictions were harsh in relation to what they could do around rig and furrow.
- Feels the archaeological surveyor missed things during survey.

Ecology

- NatureScot's priority is potential impacts upon the Langholm - Newcastleton Hills SPA. Remit – from government, to protect national interests not regional.
- Self-seeding Sitka and migration out of forest. Costly to remove.
- Concerns around Deer fencing and harmful impacts, restricting movement of other wildlife.
- Potential impact on fish in rivers from river warming.
- Feeling that forests are driving wildlife out.
- The community would be supportive of proposals to regenerate Warblaw hillsides through planting of native trees providing these avoided areas of peaty soil (both deep and shallow peat).

Ornithology

- NatureScot keen to understand where the hen harrier is nesting and foraging, especially in winter.
- NatureScot also keen to understand potential impacts upon Black Grouse.
- Tarras Valley Nature Reserve recorded c. 4 pairs of Hen Harrier this year.

Hydrology and Geology

- Noted that the underlying soil survey work conducted by Tillhill in 2019 is improperly recorded and incomplete. Scottish Woodlands informed that more peat probing surveys will be undertaken to better inform the proposals.
- Peat deposits require a comprehensive analysis; initial surveying has vulnerabilities and gaps. Request modelling to show impacts of the planting. Referenced English guidance for planting on peat. Scottish Woodlands informed that English Guidance is not applicable in Scotland.
- Queries on private water supplies and potential pollution.
- Afforestation impact on river warming and acidification impacts.
- Water supply comes down from the hill, once trees are established and it's time to remove all of the water will be polluted.
- Concerns about potential flood risk.

Cumulative

- Cumulative impact with other forestry schemes (particularly Cockplay) is a key priority and should be assessed.
- NatureScot keen to understand the cumulative impact of forestry on the SPA and Site itself. Cumulative studies have already been discussed, species movement between sites like Black Grouse and assemblage of birds.
- Cumulative impact of forestry on Warblaw and farms south of the valley.

Agricultural

- Agriculture has been sidelined.
- Bloch Farm isolated by trees, new planting will mean they are encircled. Request an agricultural impact assessment. Loss of grazing land, vermin (foxes) have resulted in a loss of c.19 lambs.
- Loss of land and reduction of business.
- Loss of small farms.
- Open ground won't return to farmland, loss of agricultural land c. 20 farms already lost.

Population and Human Health

- impact study on community – air pollution control, increased traffic, wellbeing, trees too close to community, community average is 60—65 aging population.
- Population decline, loss of younger people in Langholm.
- Impact of pesticides upon human health. Stobo Hope was raised an example.
- Loss of open space.

Socio-Economic and Tourism

- Forestry will have a negative economic impact upon the town and affect the amenity, personal belief that tourism won't benefit. Initial benefit during and after planting, but then nothing for 30 years.
- What will the benefits on the community be? No research to show that there are any benefits.

Health and Safety

- Security concerns due to rural community, fly tipping and thievery experienced.
- Concerns regarding climate change, wildfires and safety of locals. Potential pollution impact if fires were to occur.
- Concern on pesticides to be used.

Access and Recreation

- Potential for 5/14 walks to be affected with visual impact but also potentially the paths changing.
- Concerns on paths being progressed through their land.
- Want to know further details surrounding HGV access.
- Access could have potential impact upon ancient woodland.
- Recreation / Access Scoped in.

Other Issues

- Disconnect in timing of surveys – too long between them.
- Human rights concern.
- Concerned about future potential for expansion of cemetery. Scottish Woodland raised that design chances have already been implemented to allow for future expansion.

Meeting Close Out

Neil Murray from Scottish Forestry then gave thanks to everyone at the meeting for their time and participation. This was then followed with a thanks from the Atmos Consulting representative who has been commissioned by Scottish Woodland to support through the Scoping and Application process.

4 Next Steps

- Meeting minutes to be drafted and issued out to Stakeholders.
- Stakeholders to review minutes and provide any feedback within 4 weeks of issue.
- Following this the Scoping Report will then be submitted to Scottish Forestry with a response to be received within 35 days of receipt.
- Scottish Forestry will then publish the Scoping Report on their website.
- Undertaking of further assessments, revision to design and progression of environmental impact assessments.

All information with regards to the scoping consultation process and then throughout the EIA will be uploaded to Scottish Woodlands website for the public to view.



Scottish Woodlands Presentation



Warblaw

EIA Scoping Meeting



James Jones & Sons Ltd

- Land purchased by James Jones & Sons Ltd in 2019.
 - Core objective of afforestation; providing a sustainable & local timber supply for their Sawmill at Lockerbie.
- Gross area of approximately 1,051 hectares.
- James Jones & Sons Ltd in South Scotland
 - 200 direct employees.
 - 850 indirect employees.
 - £7.4m per annum in wages.
 - £64.1m investment over 20 years.
 - Roundwood harvested within 100-mile radius of their site at Lockerbie.



Project Summary

- Tillhill started project development and commissioned the following surveys:
 - Deep Peat
 - Vegetation
 - Soils
 - Landscape Assessment
 - Breeding Birds 1
 - Wintering Hen Harrier
 - Historic Environment
 - Some community engagement undertaken in 2020.



Project Summary

- Scottish Woodlands Ltd became involved with the project in 2022 and commissioned the following:
 - Breeding Bird Survey 2.
 - Black Grouse Survey.
 - Ancient Woodland Condition Survey.
 - Landscape & Visual Appraisal.
 - Agricultural Impact Assessment.
- May 2023 – Initial Community Engagement Events at Langholm and Canonbie. Concept maps presented.
- August 2024 – Second round of Community Engagement Events at Langholm. First draft of the design presented.
- Design evolution following each set of survey results and after each consultation event.



Project Summary

- In recognition of the site constraints and community concerns Scottish Woodlands Ltd announced in April 2025 that we would be voluntarily undertaking an EIA.
- Further survey work commissioned in 2025:
 - Breeding Bird Survey 3 (underway).
 - NVC and Extended Phase 1 Survey (August/September 2025).
 - Additional peat depth probing (late summer 2025).



Current Design Breakdown

Potential Grant Scheme Area of 412 hectares, approximately 39% of Warblaw. Of which,

- 177 hectares of Sitka Spruce (43%)
 - 75 hectares of Open Ground (18%)
 - 73 hectares of Native Hardwoods (18%)
 - 70 hectares of Diverse Conifer (17%)
 - 17 hectares of Productive Hardwoods (4%)
- UKFS Requires
 - No single species can exceed 65% of the planting area.
 - Diverse conifer and productive broadleaves must total a minimum of 10% of the planting area.
 - Open ground must meet a minimum of 10% of the planting area.
 - Native mixed hardwoods must meet a minimum of 5% of the planting area.



Scheme Benefits

Benefits include, but are not limited to:

- Production of sustainably managed softwood and hardwood timber.
- Significantly expanding and enhancing the existing fragments of native hardwoods and Ancient Semi Natural Woodland.
- Expanding the network of available walking routes and recreational activities around Langholm.
- Increased & sustainable opportunities for local employment in the forest industry.
- Continuation of agricultural activity on the balance of Warblaw, including on better fields and open hill, circa 538 hectares.
- Provide habitat for arboreal species, such as Red Squirrel, Goshawk, Tawny Owl and Pine Marten.
- Rewilding of internal grassland areas, benefiting many invertebrates and small mammals.
- Carbon sequestration & contribution to gov Net Zero target by 2050.
- Flood mitigation and improved water quality.
- Deer and vermin control.



Key Issues Raised

Scottish Woodlands Ltd have identified the following as the key issues raised during all consultation events:

- Planting large-scale Sitka Spruce monoculture.
 - Sitka Spruce and loss of biodiversity.
 - TVNR and self-seeded Sitka Spruce.
 - Loss of agricultural land and threat to food security.
 - Deer fencing would restrict public access.
 - Scheme would negatively impact on the cemetery.
 - Loss of views, to and from, Warblaw.
-
- Full Issues Log has been made available on the SWL Website.



Project Evolution

The design will continue to evolve, where necessary, over the coming months as more surveys are completed and the EIA process progresses. Table below shows changes to date considering survey results and consultation.

Woodland Type	Original 2020 Design		Current 2025 Design		Change Area (ha)
	Area (ha)	Percentage	Area (ha)	Percentage	
Sitka Spruce	369.07	60%	177	43%	-192.07
Open Ground	55.85	9%	75	18%	19.15
Native Hardwoods	97.37	16%	73	18%	-24.37
Diverse Conifer	80.49	13%	70	17%	-10.49
Productive Hardwoods	11.94	2%	17	4%	5.06
Total	614.72	100%	412	100%	-202.72



Next Steps

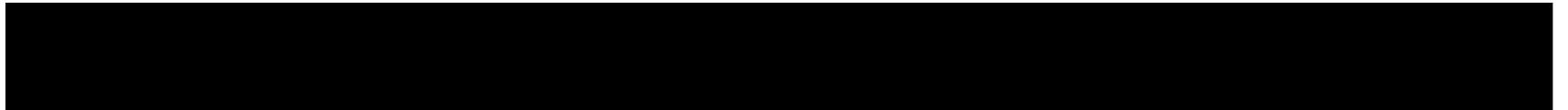
- Collate responses to EIA Scoping Exercise.
- Produce minutes from the scoping exercise and share with attendees for review and corrections.
- Agree scope of EIA with Scottish Forestry.
- Produce Scoping Report.
- EIA Report Preparation and Submission.
- EIA Report Published.
- EIA Decision.



Thank you

Charlotte Cavey-Wilcox
Regional Manager, SE Scotland

E:



W: www.scottishwoodlands.co.uk





Written Responses



Senior Forest Manager
Scottish Woodlands

Our Ref: PCS-20005799

Your Ref: Warblaw EIA Scoping

By email only to:



SEPA Email Contact:
Planning.south@sepa.org.uk

07 July 2025

Dear 

The Forestry (Environmental Impact Assessment) (Scotland) Regulations 2017 Warblaw EIA Scoping

Thank you for consulting SEPA for an Environmental Impact Assessment (EIA) scoping opinion in relation to the above forestry development. We welcome engagement with the applicant at an early stage to discuss any of the issues raised in this letter and would especially welcome further pre-application engagement once initial peat probing and habitat survey work has been completed and the layout developed further as a result.

Advice for Scottish Forestry

To **avoid delay and potential objection** the EIA submission must contain a series of scale drawings of sensitivities, for example peat depth, Groundwater Dependent Terrestrial Ecosystems (GWDTE), public and private drinking water supplies, proximity to waterbodies, overlain with proposed permanent and temporary development. This is necessary to ensure the EIA process has informed the layout of the development to firstly



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avoid, then reduce and then mitigate significant impacts on the environment. We request that the issues covered in [Appendix 1](#) below, which provides details of our standard information requirements for EIA development of this type and the form in which they must be submitted, be addressed to our satisfaction in the EIA process.

We have also provided site specific comments in the following section, which provides pre-application advice and can help the developer focus the scope of the assessment.

1. Site specific comments

- 1.1. We note that areas of potential GWDTE have been identified. For further information on assessments please refer to the Habitat survey screening for potential GWDTE section of our [Guidance on Assessing the Impacts of Developments on Groundwater Dependent Terrestrial Ecosystems](#) and the [Practice guide for forest managers to assess and protect Groundwater Dependent Terrestrial Ecosystems when preparing woodland creation proposals](#).
- 1.2. We welcome that areas identified as having peat at a depth greater than 50cm have been excluded from any afforestation proposals. Please refer to Section 2 of the Appendix for more information on our requirements in this regard.
- 1.3. We note that one Private Water Supply has been identified, serving Middleholm. It should be confirmed whether this is a groundwater supply and the source area confirmed. Please refer to section 4 of the Appendix for further information.

Flood risk advice

- 1.4. The site is partly shown to be at risk of flooding based on the SEPA Future Flood Maps. This indicates that there is a risk of flooding from a number of small watercourses. You can view the SEPA Flood Maps (including the Future Flood Map) and find out more about them at [SEPA - Flood Maps](#)
- 1.5. The SEPA Surface Water and Small Watercourse (SWSW) Flood Maps show the potential risk from watercourses with a catchment area of up to 10 km². Specifically,

the SWSW maps include small watercourses with catchments less than 3 km² which are not included in the River Flooding maps. Such watercourses can cause serious flooding impacts, particularly if they are flashy in nature, meaning flooding can occur rapidly and with little warning.

- 1.6. The Warblaw Woodland Creation Location Plan (OS Map, Jan 2025) indicates that the site has areas of steep gradient. As such, due to the steep gradient, the site may be at risk from higher than average surface water runoff rates during heavy rainfall and appropriate drainage management plans should be implemented to prevent exacerbation to flood risk both on and off site.
- 1.7. We hold records of flooding within SEPA's Observed Flood Event database showing there was flooding in the area of Langholm in 2005, 2007, 2009, 2010, 2015, 2019. Additionally, we have records of flooding to the West of the site along the A7 in 2010 and 2019.
- 1.8. The receptors to flood risk should be considered when determining any management strategy. The plan should therefore assess the impact of the works on flood risk to both the site and any downstream receptors.
- 1.9. For example, the impact on flows, sediment transport, capacity of culverts and potential blockage of downstream structures need to be considered. Monitoring before, during, and after works may need to be implemented on this catchment and we recommend that flood risk should be considered in the short, medium and long term timescales from ground preparation to tree maturity and commencement of operations. This should be considered at the working plan stage.

Buffers and Woody Debris

- 1.10. With regards to woodland creation there is the potential for an increase in the volume of woody debris and sediment available to the channel thereby increasing the risk of blockages within the channel or to existing structures.

- 1.11. We therefore recommend the provision of buffer strips adjacent to watercourses and in general would advise against the planting of trees in these buffers or in functional floodplains, particularly when close to residential areas, in order to prevent the increased potential for blockages occurring due to in-channel debris. The width of these buffer strips may require to be increased considerably in steeply incised watercourse catchments to prevent any wind-blown trees falling directly into the watercourse channel.
- 1.12. Similarly, during harvesting, woody material should be stored away from watercourses and outwith the buffer strips so that this cannot be washed into the channel during a storm event. We would also recommend that an inspection and maintenance regime is implemented to ensure any material which does enter the watercourse can be removed as soon as possible.

Drainage and runoff

- 1.13. There should be no increased runoff as a result of the works and if not managed appropriately downstream flood risk may be exacerbated potentially increasing risk to Langholm and the A7. We would note that by employing good forestry management practices such potential impacts can be mitigated.
- 1.14. We would recommend that any significant works such as changes in drainage, planting, or harvesting activities are notified to Dumfries and Galloway Council and if necessary a method statement of works or mitigation agreed. We would also advise that ploughing of furrows for planting occurs across the slope, rather than up and down, has the potential to reduce runoff from the hillside.
- 1.15. We would advise that the removal of trees during a harvesting period could have varying degrees of associated hydrological impacts. For example, there may be short term impacts with changes to surface water run off rates and debris which could be mobilised during a flood event and the destabilisation of soils can lead to erosion and gully formation following heavy rain. This can lead to increased runoff rates and volumes for subsequent (including non-extreme) rainfall events which

may have otherwise been subject to greater interception by the tree canopy and localised flooding issues may arise. We would therefore assume that relevant good practice guidance will be adopted to minimise this.

- 1.16. Before replanting, any necessary drainage works should be undertaken to intercept and slow overland flow velocities to maximise the available depression storage and increase soil infiltration times available for floodwaters for example interceptor trenches and cut-off ditches. These drainage works should be maintained in the long term to ensure that they continue to provide adequate storage for surface water runoff and that this is not gradually lost through the deposition of sediments.
- 1.17. Watercourse crossings must be designed to accommodate the 0.5% annual exceedance probability flows with an appropriate allowance for climate change, or information provided to justify smaller structures. Our [Climate change allowances for flood risk assessment in land use planning](#) guidance sets out required allowances for climate change. Further advice can also be found in The UK Forestry Standard Practice Guide: [Designing and managing forests and woodlands to reduce flood risk](#) - Forest Research.

If you have queries relating to this letter, please contact us at Planning.south@sepa.org.uk including our reference number in the email subject.

Yours sincerely

Jessica Taylor
Senior Planning Officer
Planning Service



Disclaimer: This advice is given without prejudice to any decision made on elements of the proposal regulated by us, as such a decision may take into account factors not considered at this time. We prefer all the technical information required for any SEPA consents to be submitted at the

same time as the planning or similar application. However, we consider it to be at the applicant's commercial risk if any significant changes required during the regulatory stage necessitate a further planning application or similar application and/or neighbour notification or advertising. We have relied on the accuracy and completeness of the information supplied to us in providing the above advice and can take no responsibility for incorrect data or interpretation, or omissions, in such information. If we have not referred to a particular issue in our response, it should not be assumed that there is no impact associated with that issue. For planning applications, if you did not specifically request advice on flood risk, then advice will not have been provided on this issue. Further information on our consultation arrangements generally can be found at sepa.org.uk/environment/land/planning/.

Appendix 1: SEPA Forestry EIA scoping requirements

This appendix sets out our minimum information requirements and we would welcome discussion around these prior to formal submission to avoid delays. There may be opportunities to scope out some of the issues below depending on the site and if the proposals include afforestation, deforestation, forest roads or forestry quarry proposals.

We have highlighted below where an issue within our remit is applicable only to example one of these aspects of the development. However, evidence must be provided in the submission to support why an issue is not relevant for this site. If there is a significant length of time between scoping and application submission, the developer should check whether our advice has changed.

1. Site layout

- 1.1. Each of the drawings requested below must detail all proposed upgraded, temporary and permanent infrastructure, afforestation and deforestation areas. This includes all roads, excavations, landraising and other groundworks, buildings, quarries, site compounds, laydown areas, storage areas and any other construction and built elements. All drawings must be based on an adequate scale with which to assess the information.
- 1.2. The layout should be designed to minimise the extent of new works on previously undisturbed ground with existing built infrastructure re-used or upgraded where possible.
- 1.3. A comparison of the environmental effects of alternative locations of infrastructure elements may be required. We seek absolute avoidance of development on the sensitive habitats detailed below. Where elements of a development haven't avoided for example near-natural peatland, adequate justification should be provided for the proposed layout. The justification should include how any impacts are considered in relation to example the mitigation hierarchy as demonstrated through the Peat Management Plan (PMP) submission. This should be supported by maps with overlays of the peat maps and any other constraints, such as visual

impact, to clearly demonstrate how these constraints have influenced any necessary need for development on peatland and other sensitive habitats within our remit.

2. Peatland and other carbon rich soils (CRS)

- 2.1 Peatland in near natural condition generally experiences low greenhouse gas emissions, is accumulating and may be sequestering carbon, has high value for supporting biodiversity, helps to protect water quality and contributes to natural flood management, irrespective of whether that peatland is designated for nature conservation purposes or not. Where proposals are on peatland or other CRS, the following should be submitted to address our requirements in relation to protecting CRS and the ecosystem services they provide (including water and carbon storage).
- 2.2 It should be clearly demonstrated that the assessment has informed careful project design and ensured, in accordance with relevant guidance and the mitigation hierarchy of avoid, minimise, restore, offset, that adverse impacts are first avoided and then minimised through best practice.
- 2.3 The submission should include a series of layout drawings, at a usable scale, showing all permanent and temporary infrastructure, along with the ancillary construction work areas, with the extent of excavation required and any new planting or deforestation areas. These plans should be overlaid on the following:
- a) Peat depth survey showing peat probe locations, colour coded using distinct colours for each depth category. This must include adequate peat probing information to inform the site layout, which may be more than that outlined in the [Peatland Survey – Guidance on Developments on Peatland \(2017\)](#). Further advice on undertaking a peat depth survey can be found in Appendix 2 of the Scottish Forestry guidance [Cultivation for Upland Productive Woodland Creation Sites – Applicant’s Guidance](#).
 - b) Peat depth survey showing interpolated peat depths.
 - c) Peatland condition mapping – the [Peatland Condition Assessment](#) photographic

guide lists the criteria for each condition category and illustrates how to identify each condition category.

2.4 The detailed series of layout drawings above should clearly demonstrate that peat excavation has been avoided where possible. Where complete avoidance of peat and other CRS is not possible, justification should be provided to adequately demonstrate why this is the case, and it should be clearly demonstrated on the drawings that:

- a) Development proposals avoid any near natural peatland and the deepest areas of peat.
- b) New planting has avoided deep peat, in a forestry context defined as > 50cm depth.
- c) Commercial conifer restocking on deep peat should be fully justified compared to peatland restoration or low density broadleaf options.
- d) New quarries and forest roads are located so that they avoid and minimise peat disturbance, first through layout, by avoiding deep peat, and then by design, making use of techniques such as floating road construction.

2.5 The above drawing(s) should be supported by an Outline Peat Management Plan (PMP) which includes:

- a) A table setting out the volumes of acrotelmic, catotelmic and amorphous peat to be excavated. These should include a contingency factor to consider variables such as bulking and uncertainties in the estimation of peat volumes.
- b) A table clearly setting out the volumes of acrotelmic, catotelmic and amorphous excavated peat: (1) used in making good site specific areas disturbed by development, including quarries (quantities used in making good areas disturbed by development must be the minimum required to achieve the intended environmental benefit and materials must be suitable for the proposed use), (2) used in on and off site peatland restoration, and (3) disposed of, and the proposed means of disposal (if deemed unavoidable after all other uses of excavated peat have been explored and reviewed).

- c) Details of proposals for temporary storage and handling of peat - [Good Practice during Wind Farm Construction](#) outlines the approach to good practice when addressing issues of peat management on site and minimising carbon loss, which is also applicable to this type of development.
- d) Suitable evidence that the use of peat in making good areas disturbed by development, including quarries, is genuine and not a waste disposal operation, including evidence on the suitability of the peat and evidence that the quantity used matches and does not exceed the requirement of the proposed use.
- e) If peat is to be used in the reinstatement of quarries on site, cross sections and plans should be provided showing the proposed maximum peat depth profiles for each category of peat, phasing and final restoration profiles in relation to surrounding land with a clear hydrological justification for the use of catotelmic peat also being given. The target restoration habitat for each quarry should be specified, along with how this will be maintained and managed in perpetuity.
- f) Use of excavated peat in areas not disturbed by the development itself, or for peatland restoration in deforestation areas, are no longer matters we provide planning advice on. Please instead refer to the relevant Scottish Forestry [publications](#) including [Deciding future management options for afforested deep peat](#) and [Supplementary Guidance to support the FC Forestry and Peatland Habitats Guidance Note, Advising on peatland, carbon-rich soils and priority peatland habitats in development management | NatureScot 2023](#), and the [Peatland ACTION – Technical Compendium](#), which provides more detailed advice on peatland restoration techniques.
- g) Unless the excavated peat is certain to be used for construction purposes in its natural state on the site from where it is excavated, it will be subject to regulatory control. The use of excavated peat off-site, including for peatland restoration, will require the appropriate level of environmental authorisation. Excavated peat will be waste if it is discarded, or the holder intends to or is required to discard it. These proposals should be clearly outlined so that we can identify any regulatory implications of the proposed activities. This will allow the developer and their contractors to tailor their planning and designs to accommodate any regulatory requirements. Further guidance on this can be found in the document [Is it waste -](#)

[Understanding the definition of waste.](#)

3. Water environment

- 3.1 The proposals should demonstrate how impacts on local hydrology have been minimised and the site layout designed to minimise watercourse crossings and avoid other direct impacts on water features. Measures should be put in place to protect any downstream sensitive receptors.
- 3.2 To address the biodiversity crisis, any forestry proposals should conform to the new riparian guidance, [Creating and managing riparian woodlands Practice Guide](#), aimed at protecting and promoting nature friendly solutions in this riparian corridor to deliver maximum environmental outputs.
- 3.3 The submission must include a set of drawings showing:
- a) The footprint of all proposed temporary and permanent infrastructure (including all the ancillary construction work areas, for example excavations, landraising and other groundworks, storage, laydown and working areas) overlain with all waterbodies.
 - b) The minimum buffer around each waterbody, as detailed in Table 1 of [Recommended Riparian Corridor Layer for use in Land Use Planning](#), from all construction activities, example forest roads or quarries, including working and storage areas, or 50m where subsurface activities are more than 1m in depth. If these minimum buffers cannot be achieved each breach must be numbered on a plan with an associated photograph of the location, dimensions of the waterbody, drawings of what is proposed in terms of any engineering works, and details of why the minimum buffer cannot be achieved and mitigation measures to protect the feature.
 - c) For afforestation, all watercourses and water bodies should be identified as constraints and be protected from ground disturbance operations by adoption of good forestry practices as outlined in the Forest & Water Guidelines. Establishing an effective buffer area is fundamental to the protection of the riparian zone and

aquatic habitat. These areas should all be clearly marked on the proposal maps and supported by information to demonstrate how protecting the water environment has been considered when deciding on the location, layout and design of the planting proposals, for example in relation to the timing of works or size of areas that will ultimately need to be felled at the same time.

All watercourses that are identified as a potential downslope receptor to an increased risk of phosphate leaching or sedimentation should be highlighted, accompanied with detailed mitigation options. This mitigation may include, but is not limited to:

- a) Introducing a wider riparian buffer strip along stretches of watercourses that may be affected by upslope high risk forestry works.
- b) Detailed surface water management planning for each coupe to ensure they are designed with no pathways connecting to a watercourse and have adequate vegetated filtration to catch fine sediment.
- c) Using phasing in individual coupes (especially those adjacent to a watercourse), so that no one area will need to be fully exposed all at once during the future felling stage.
- d) Avoid felling in coupes directly adjacent to watercourses during periods of heavy rainfall or snowmelt.
- e) Follow the most up-to-date guidance on ground preparation techniques as outlined by Scottish Forestry guidance [Cultivation for Upland Productive Woodland Creation Sites – Applicant’s Guidance](#) to minimise carbon release to atmosphere and surface waters. This guidance should apply to new woodland creation and also felling & restocking.
- f) For deforestation, information should be provided to demonstrate how protecting the water environment has been considered when deciding on the location, layout and design of the felling programme, for example in relation to the timing of works or size of areas that will be felled at the same time. [The UK Forestry Standard](#) states that the leaching and run-off of phosphate and nitrate from the land represents a loss of soil fertility and can reduce surface

water and groundwater quality. This risk to water bodies can be a problem for any soil, but peat soils are particularly liable to leaching of phosphate from brash following large-scale felling operations. Soil erosion can also transport phosphate bound to soil particles, which can be subsequently released in the receiving water body.

- g) A map showing the location, size, depths and dimensions of all quarries overlain with all waterbodies within 250m and showing a site-specific buffer around each waterbody proportionate to the depth of excavations. The information provided needs to demonstrate that a site-specific proportionate buffer can be achieved. This should also be supported by a ground investigation report giving existing seasonally highest water table including sections showing the maximum area, depth and profile of working in relation to the water table.

3.4 Further advice and our best practice guidance are available on our sepa.org.uk/regulations/water/engineering/ webpage. Guidance on the design of water crossings can be found in the [Construction of River Crossings Good Practice Guide](#).

4. Groundwater Dependent Terrestrial Ecosystems and existing groundwater abstractions

4.1 The construction of forest roads, quarries and new planting can disrupt groundwater flow and impact on Groundwater Dependent Terrestrial Ecosystems (GWDTE), which are protected under the Water Framework Directive, and existing groundwater abstractions. The layout and design of the development must avoid adverse impacts on such areas, ensuring the water environment, including GWDTE and existing groundwater abstractions, are protected.

4.2 As detailed in our [Guidance on Assessing the Impacts of Developments on Groundwater Dependent Terrestrial Ecosystems](#) and the [Guidance on Assessing the Impacts of Developments on Groundwater Abstractions](#), a phased approach to the assessment of risks to GWDTE and groundwater abstractions is recommended, with greater detail being required for higher risk sites or activities.

- 4.3 Where monitoring is required, please note that baseline monitoring is expected to commence at least 12 months ahead of the development works starting on site and this should be factored into the timescales for submitting the Environmental Impact Assessment Report (EIAR) and commencement of development.

Groundwater Dependent Terrestrial Ecosystems (GWDTE)

- 4.4 Where the proposals include forest roads, quarries or new planting, the applicant should follow the advice in the [Practice guide for forest managers to assess and protect Groundwater Dependent Terrestrial Ecosystems when preparing woodland creation proposals](#), developed with Scottish Forestry and the forestry industry to provide sector specific guidance on GWDTE, to carry out an initial site suitability assessment using existing data sources and a walkover survey to determine the presence and likely extent of GWDTE, and assess the potential risks that woodland creation operations could pose to these.

Where initial assessment results indicate relevant habitats may be present, a National Vegetation Classification (NVC) survey should be submitted, along with a set of drawings demonstrating for new planting proposals:

- a) Springs and flushes (e.g. NVC M5-M8, M10-M12, M31-M35 and M37-M38) and botanically rich fens (e.g. NVC M5, M9, M10, M13 and S24) will not be planted on. A buffer of 20m should be maintained between the forest edge and edge of GWDTE habitat. This buffer may be planted with native broadleaves via hinge mounding.
 - b) Fens that are not considered to be botanically rich can be planted.
 - c) Rush pasture, Molinia dominated marshy grassland and wet heath (e.g. NVC M15, M16, M23, M25) is usually not botanically rich and can be planted, however where botanically rich then planting should be restricted to low density native species if it will enhance the wetland habitat.
 - d) Degraded, botanically poor GWDTE can be planted.
- Please also refer to [Guidance on Assessing the Impacts of Developments on Groundwater Dependent Terrestrial Ecosystems](#) for further advice and the minimum information we require to be submitted.

Please note that while we will accept The UK Habitat Classification System (UKHab) as an alternative to a Phase 1 habitat survey, due to discrepancies in habitat definition and ambiguity in correspondence with NVC types, we do not accept the use of the UKHab as an alternative to NVC.

Existing groundwater abstractions

- 4.5 Where the proposals include forest roads or quarries, the source (rather than the property it supplies) of both public and private water supply groundwater abstractions, both within and outwith the site boundary, should be identified. Scottish Water holds information regarding public water supplies and the Local Authority holds records of private water supplies. Note that the information held by the Local Authority will sometimes relate to the property served by the private water supply, rather than the location of the source itself (e.g. the house rather than the borehole or spring). Therefore, the details of each private water supply source require confirmation, including a site walkover survey. All forestry works must take cognisance of new guidance published by Scottish Forestry, [Managing Forestry Operations to Protect Private Water Supplies](#), aimed at protecting private water supplies from all forestry operations. This useful document covers operations from planning to delivery.
- 4.6 The following information should be submitted where the assessment results indicate groundwater supplies may be present:
- a) A set of drawings demonstrating all groundwater abstractions are outwith a 10m radius of all activities, 100m radius of all excavations shallower than 1m and outwith 250m of all excavations deeper than 1m. The survey needs to extend beyond the site boundary where the distances require it.
 - b) If the minimum buffers cannot be achieved a conceptual site model should be provided that includes interpretation of the hydrogeological setting, including the groundwater flow regime. This may be supported, as appropriate, by intrusive ground investigation, groundwater monitoring, or groundwater modelling. Please refer to [Guidance on Assessing the Impacts of Developments on Groundwater Abstractions](#) for further advice on undertaking detailed site specific qualitative

and/or quantitative risk assessments and the minimum information we require to be submitted.

5. Flood risk

- 5.1 Advice can be found in The UK Forestry Standard Practice Guide: [Designing and managing forests and woodlands to reduce flood risk - Forest Research](#). Further advice on flood risk is available on our map.sepa.org.uk/floodmaps/FloodRisk/Landuseplanning webpage and in our [Flood Risk Standing Advice](#), which may contain advice that is also applicable to this development. In March 2025 we also published new surface water flood maps, which for the first time include small watercourses and can be found at map.sepa.org.uk/floodmap/map.htm. Reference should also be made to [Controlled Activities Regulations \(CAR\) Flood Risk Standing Advice for Engineering, Discharge and Impoundment Activities](#).
- 5.2 The receptors to flood risk should be considered when determining any management strategy. The plan should assess the impact of the works on flood risk to both the site and any downstream receptors. For example, the impact on flows, sediment transport, capacity of culverts and potential blockage of downstream structures need to be considered. Monitoring before, during, and after works may need to be implemented on the catchment and we recommend that flood risk should be considered in the short, medium and long term timescales from ground preparation to tree maturity and commencement of operations. For example, the removal of trees during a harvesting period could have varying degrees of associated hydrological impacts. There may be short term impacts with changes to surface water run off rates and debris which could be mobilised during a flood event and the destabilisation of soils can lead to erosion and gully formation following heavy rain. This can lead to increased runoff rates and volumes for subsequent (including non-extreme) rainfall events which may have otherwise been subject to greater interception by the tree canopy and localised flooding issues may arise.
- 5.3 A flood risk assessment (FRA) should be undertaken where it is considered that the

development could result in an increased risk of flooding to a nearby receptor, in order to better understand the risk. Our [Technical Flood Risk Guidance for Stakeholders](#) provides advice on undertaking a FRA.

5.4 The FRA should specifically address the following issues:

- a) All existing watercourses and drains on the site are fully identified and flow pathways understood in relation to the 1 in 200 year plus climate change flood levels for the catchment.
- b) The modelling should extend far enough upstream to capture any flow pathways which may impact the development site.
- c) Demonstration there is no increased flood risk to existing properties in the vicinity of the proposed development and, if possible, demonstrate an improvement.
- d) Any intended realignment or alteration of channels should also be outlined and accounted for within the FRA, with analysis showing pre and post development flood risk.
- e) Where applicable, flows should be shown to be accommodated within any altered channel to avoid flooding of existing structures, access roads or increased risk for others.

5.5 New or upgraded crossings should be minimised and must be designed to accommodate the 0.5% annual exceedance probability flows with an appropriate allowance for climate change, or information provided to justify smaller structures. Our [Climate change allowances for flood risk assessment in land use planning](#) guidance sets out required allowances for climate change. Any opportunities to provide a benefit to any existing flooding problems at a watercourse crossing point should also be investigated. We do not support culverting for land gain. If any works to alter watercourse channels are proposed, we would expect betterment to the channel and utilisation of this opportunity to help reduce flood risk to the wider site and any other nearby receptors.

5.5 Sites with steep gradients, or surrounded by land with steep gradients, may be at

risk from higher than average surface water runoff rates during heavy rainfall and appropriate drainage management plans should be implemented to prevent exacerbation to flood risk both on and off site.

- 5.6 With regards to woodland expansion, clear-felling, restocking, there is the potential for an increase in the volume of woody debris and sediment available to the channel, thereby increasing the risk of blockages within the channel or to existing structures. During harvesting, woody material should be stored away from watercourses and outwith buffer strips so that this cannot be washed into the channel during a storm event. We would also recommend that an inspection and maintenance regime is implemented to ensure any material which does enter the watercourse can be removed as soon as possible.
- 5.7 Appropriate buffer strips should be applied in areas adjacent to any watercourses and appropriate surface water drainage and debris management plans should be incorporated to ensure that flood risk elsewhere doesn't increase as a result of any woodland restocking, woodland expansion or clear felling.
- 5.8 Before replanting, any necessary drainage works should be undertaken to intercept and slow overland flow velocities to maximise the available depression storage and increase soil infiltration times available for floodwaters for example interceptor trenches and cut-off ditches. These drainage works should be maintained in the long term to ensure that they continue to provide adequate storage for surface water runoff and that this is not gradually lost through the deposition of sediments.
- 5.9 Generally, we are unable to support landraising within a flood risk area. However, where landraising is proposed within the flood risk area identified within the FRA, it should be linked to compensatory storage and demonstrated that there is no reduction in floodplain capacity, or increased risk for others. Notwithstanding this, any landraising must be shown to be minimised as far as possible. With regards to any new or upgraded access tracks, whilst there is unlikely to be a significant impact on floodplain storage as a result of such development, these should be

designed in such a way to ensure that they do not result in an elevation of the land within the functional flood plain as well as ensuring that they have minimal impact on natural drainage patterns. This is in order to prevent any adverse impacts on flood plain conveyance. All access tracks and forest roadways should also have appropriate drainage so that the roads themselves do not provide pathways to facilitate rapid runoff from the site.

6. Environmental enhancements

- 6.1 Policy 3 of National Planning Framework (NPF) 4 requires all EIA development to demonstrate that the proposal will conserve, restore and enhance biodiversity, including nature networks, so they are in a demonstrably better state than without intervention. EIA development should fully mitigate potential negative effects prior to identifying biodiversity enhancements, with the enhancements provided in addition to mitigation. Where upgrades or extensions to existing roads are proposed, the assessment should identify any opportunities for improvement works such as upgrading of a culvert to allow fish passage, removal of a redundant weir or re-introduction of meanders in artificially-straightened watercourses.

7. Invasive non-native species (INNS)

- 7.1 As detailed in the [River basin management plan for the Scotland 2021 - 2027](#), INNS present a significant risk to the water environment. They can impact the ecology directly or affect the habitats of the water environment. They can also have impacts on the condition of areas protected under the Habitats Directive for species or habitats important at a European scale and those nationally important for biodiversity.
- 7.2 Where INNS are present on site, the proposals should include a management plan detailing measures for eradication, containment and control, including biosecurity measures during any operation that could pose a risk of spreading INNS. Given the likelihood of re-contamination of riparian INNS from upstream populations, any control efforts should be undertaken with this in mind, and it is recommended that

links are made with existing projects such as the biosecurity plans which are produced by the Rivers and Fisheries Trusts Scotland, available at invasivespecies.scot/learning-biosecurity/river-biosecurity-plans/. Forestry operators should wash down equipment and machinery prior to leaving an area/catchment where INNS are present. Good biosecurity practices are outlined within UKFS and also [know-the-rules-booklet-2nd-edition-jan-2023.pdf](#)

- 7.3 Further advice and guidance can be found in the Netregs [Japanese knotweed, giant hogweed and other invasive weeds guide](#), along with our www.sepa.org.uk/environment/biodiversity/invasive-non-native-species/ webpage, which also includes advice on activities which may require authorisation by SEPA.

8. Use of waste on site, including felling waste

- 8.1 Large scale felling can result in substantial amounts of waste material and a peak in release of nutrients which can affect local water quality. The discarding of materials as waste should be avoided and the [waste hierarchy](#) applied to waste produced during construction and operation of the site. The submission must include drawings of where felling will take place and a description of any proposed onsite uses for material to be left on site as a result of the felling operations, including the type and quantities, demonstrating compliance with our guidance [Management of Forestry Waste](#). There must be a clear beneficial use identified for any material left on site. If there is an intention to discard materials then further guidance on this can be found in [Is it waste - Understanding the definition of waste](#), and our sepa.org.uk/regulations/waste/ and sepa.org.uk/regulations/waste/guidance/ webpages.

9. Pollution prevention and environmental management

- 9.1 The applicant should, through the EIA process, systematically identify all aspects of site work that might impact upon the environment, identify pollution risks, and outline preventative measures and mitigation. A draft schedule of mitigation should be produced as part of this process which then details all the environmental

sensitivities, pollution prevention and mitigation measures identified to avoid or minimise environmental effects. Please refer to the [Guidance for Pollution Prevention](#) (GPPs), along with our sepa.org.uk/regulations/water/construction/ and sepa.org.uk/regulations/water/pollution-control/water-run-off-from-construction-sites/ webpages, for more information and advice. Proposals should demonstrate how they will comply with the environmental standards contained within the UK Forestry Standard [Managing forest operations to protect the water environment - Forest Research](#).

10. Quarry restoration

- 10.1 Planning Advice Note 50 [Controlling the Environmental Effects of Surface Mineral Workings](#) (PAN 50) provides useful advice on mineral proposals and we request that sections and plans, detailing how restoration will be progressed including the phasing, profiles, depths and types of material to be used be submitted for each quarry. Please also note the advice and information required in 2.5 e) above where peat is to be used in the reinstatement of quarries on site.

11. Private water abstraction or dewatering

- 11.1 The submission should confirm whether there is a need for a new private water supply or whether there is a need for dewatering works. Where water abstraction or dewatering is proposed we request that the submission details the information below. Whilst we regulate water abstractions under The Water Environment (Controlled Activities) (Scotland) Regulations 2011, the following information is required at the EIAR stage to advise on the acceptability of the abstraction at this location:
- a) Source e.g. ground water or surface water;
 - b) Location e.g. grid reference and description of site;
 - c) Volume e.g. quantity of water to be extracted;
 - d) Timing of abstraction e.g. will there be a continuous abstraction;
 - e) Nature of abstraction e.g. sump or impoundment;
 - f) Proposed operating regime e.g. details of abstraction limits and hands off flow;

- g) Survey of existing water environment including any existing water features;
- h) Impacts of the proposed abstraction upon the surrounding water environment.

- 11.2 If other development projects are present or proposed within the same water catchment then we advise that the applicant considers whether the cumulative impact upon the water environment needs to be assessed. The submission should also contain a justification for the approach taken.
- 11.3 Further advice and best practice guidance, along with details of how to apply for CAR authorisation or contact us for further advice, can be found on our sepa.org.uk/regulations/water/ and sepa.org.uk/regulations/land/forestry/ webpages.

12. Other planning matters

- 12.1 For all other planning matters, we refer the developer to the relevant standing advice in our [Triage guidance and standing advice](#), which contains advice that is also applicable to elements of forestry applications.

13. SEPA authorisation

- 13.1 We authorise several matters relating to water, waste management, radioactive substances, and pollution prevention and control. In 2018, the Scottish Government brought in the Environmental Authorisations (Scotland) Regulations 2018 (EASR 2018). The aim of these Regulations is to provide a standardised, simplified, common framework for environmental authorisations in Scotland, known as an Integrated Authorisation Framework (IAF). A copy of the draft Environmental Authorisations (Scotland) Amendment Regulations 2025 can be found at legislation.gov.uk/sdsi/2025/9780111062319/introduction.
- 13.2 The IAF is being developed in a phased manner during 2025, with the regulations applying initially to radioactive substances activities in early 2025. For further information on the amendment of the regulations please refer to our

sepa.org.uk/regulations/how-we-regulate/environmental-authorisations-scotland-regulations-2018/ webpage.

- 13.3 It is an applicant's responsibility to ensure their proposals will meet all relevant regulatory requirements and they are working within regulatory guidelines. We prefer all the technical information required for any SEPA authorisations to be submitted at the same time as the planning or similar application. We consider it to be at the applicant's commercial risk if planning permission is granted for a development/process which cannot gain authorisation from us, or if any significant changes required during the regulatory stage necessitate a further planning application or similar application and/or neighbour notification or advertising.
- 13.4 Our sepa.org.uk/regulations/ and sepa.org.uk/regulations/land/forestry/ webpages provide good practice advice and guidance and defines those activities which may require authorisation by SEPA, along with details of how to contact us for more help, advice and how to apply for any necessary authorisations.

From: [REDACTED]
Sent: 21 July 2025 10:22
To: Warblaw-NWC
Cc: [REDACTED]
Subject: PCS-20005799 SEPA Response to
Attachments: PCS-20005799 SEPA Response - Warblaw Flood risk comments included.docx

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Dear [REDACTED]

Forestry (Environmental Impact Assessment) (Scotland) Regulations 2017 Warblaw New Woodland Creation: EIA Scoping

Further to our response of 7 July 2025 in relation to the above EIA scoping, I have now received detailed comments from SEPA's flood risk hydrologists in relation to the proposals. I have therefore attached an amended response letter, with a new section titled "Flood Risk Advice". This should replace our previous scoping comments. Note that all other sections remain unchanged. I would appreciate if you could confirm receipt of the attached.

I trust these comments are of assistance - please do not hesitate to contact me if you require any further information.

Kind regards,

[REDACTED]
Senior Planning Officer



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Dh'fhaodadh gum bi am fiosrachadh sa phost-d seo agus ceanglachan sam bith a tha na chois dìomhair, agus cha bu chòir am fiosrachadh a bhith air a chleachdadh le neach sam bith ach an luchd-faighinn a bha còir am fiosrachadh fhaighinn. Chan fhaod neach sam bith eile cothrom fhaighinn air an fhiosrachadh a tha sa phost-d no a tha an cois a' phuist-d, chan fhaod iad lethbhreac a dhèanamh dheth no a chleachdadh arithist. Mura h-ann dhuibhse a tha am post-d

seo, feuch gun inns sibh dhuinn sa bhad le bhith cur post-d gu postmaster@sepa.org.uk. Togalach Aonghais Mhic a' Ghobhainn, 6 Craobhraid Parklands, Eurocentral, Baile a' Chuilinn, Siorrachd Lannraig a Tuath, ML1 4WQ. Faodar conaltradh còmhla ri SEPA a sgrùdadh no a chlàradh no a sgaoileadh gus obrachadh èifeachdach an t-siostaim a ghlèidheadh agus airson adhbharan laghail eile.



HISTORIC
ENVIRONMENT
SCOTLAND

ÀRAINNEACHD
EACHDRAIDHEIL
ALBA

By email to:

Longmore House
Salisbury Place
Edinburgh
EH9 1SH

Senior Forest Manager
Scottish Woodlands

Our case ID: 300074296

2 July 2025

Dear

Warblaw New Woodland Creation: EIA Scoping Meeting Invitation

Thank you for the above invitation which we received on 6 June 2025, and your clarification email which we received on 18 June 2025. We have reviewed the proposal and the accompanied Historic Environment Desk-based Assessment and Walkover Survey report (HEDBA) in terms of our historic environment interests. This covers World Heritage Sites, scheduled monuments and their settings, category A listed buildings and their settings, inventory gardens and designed landscapes, inventory battlefields and Historic Marine Protected Areas.

If you have not already done so, please also contact the Scottish Borders Council's archaeological and cultural heritage advisors for their comments on any unscheduled archaeology, category B and C listed buildings, and conservation areas that may be affected by the proposed scheme.

We are unable to attend the EIA scoping meeting on 10th July 2025 but have the following comments to offer.

Our advice

We understand from the HEDBA that the preliminary forest design proposes mixed planting of Sitka Spruce, Norway Spruce, Douglas Fir and other conifers interspersed with areas of native broadleaves and open ground. Access roads, quad tracks and other infrastructure would also be created. We note from your clarification email of 18 June 2025 that the "Access (Forest road; suitable for HGV)", "Utilities - Overhead powerline (OHP)", "Water supply" and "Access - Core path" running to the east and near to the scheduled monument of *Old Irvine, settlement 600m NNW of (SM4406)*, as shown in the "INFRASTRUCTURE - Warblaw North Access, Infrastructure and Land Use" plan, are all existing infrastructure.

Historic Environment Scotland's Interests

We noted in our previous response to your pre-application consultation in September 2024 that the area proposed for woodland creation would include the scheduled monument of *Old Irvine, settlement 600m NNW of (SM4406)*.

Historic Environment Scotland – Longmore House, Salisbury Place, Edinburgh, EH9 1SH
Scottish Charity No. **SC045925**
VAT No. **GB 221 8680 15**



Old Irvine, settlement 600m NNW of (SM4406)

The monument is a settlement situated on the southeastern flank of Burian Hill. On plan it is oblong with rounded ends and measures some 58m northwestern-southeastern by 34m transversely within a low stony bank, which is evident only on the northeastern and southeastern sides. The interior has been dug down into the hillside and has been divided into two areas of unequal size and different levels. There is evidence of an entrance into the upper level from the northeast and possibly one into the lower level from the southeast. The back scarp of the settlement is 2m high. To the northwest and southeast are traces of a contemporary field system. You can find further information including the legal documents here: <https://portal.historicenvironment.scot/designation/SM440>

We welcome the changes to the proposed planting plan in the vicinity of *Old Irvine, settlement 600m NNW of (SM4406)* made following our pre-application advice of September 2024. The scheme as currently proposed includes an appropriate area of open ground around the monument with a minimum distance of approximately 40m between the site and the nearest trees, retaining open views to the north-west and allowing the monument to retain its relationship with contemporary field systems.

The planting in the vicinity of the monument is proposed as Sitka spruce and, whilst the use of naturalistic curves within the layout is welcome, we would encourage the use of native or broadleaf tree species along the edges of these compartments to further reduce the impact of the proposed planting on the scheduled monument.

Scoping

We understand that the proposed scheme would undergo a scoping exercise pursuant to The Forestry (Environmental Impact Assessment) (Scotland) Regulations 2017. We recommend that the undertaking of a cultural heritage assessment should reflect the best practice guidance given in the [EIA Handbook](#). Assessments of impacts on setting of historic environment assets should refer to our [Managing Change in the Historic Environment: Setting](#) guidance note.

Please contact us if you have any questions about this letter. The officer managing this case is Adrian Lee who can be contacted by phone on [REDACTED] or by email at [REDACTED]

Yours sincerely

Historic Environment Scotland

Louise McGinlay
Scottish Woodlands

19 September 2024

Dear [REDACTED]

Many thanks for consulting RSPB Scotland on the Woodland Creation plan for Warblaw.

We have some concerns over the potential impacts of the proposal on the Langholm – Newcastleton Hills SPA which has not been factored into the appraisal of this site. We also have concerns in relation to the impacts on other bird species and habitats on site. We provide more detailed comments below.

Designated Sites

Section 3.1 of the Breeding Birds Assessment states that “There are no designated sites of conservation interest within 2km of the survey area”. However, the Langholm – Newcastleton Hills SPA is c.200m from the Warblaw boundary at its closest point, and the SSSI of the same name which shares the same boundary as the SPA is also situated c.200m from the project boundary. Since the boundary of this SPA is within connectivity range of this proposal, we consider that a Habitats Regulations Appraisal (HRA) is likely to be required to fully determine the impacts of this proposal in relation to its qualifying species (Hen Harrier). The ecological appraisal for this site should therefore include enough supporting information to allow the competent authority (Scottish Forestry) to carry out an Appropriate Assessment (AA) to ensure that the proposal will not adversely affect the integrity of the SPA¹. NatureScot should also be consulted regarding the potential impacts on both of these sites.

Hen Harrier

Breeding Hen Harrier is a qualifying species for the neighbouring Langholm – Newcastleton Hills SPA and is one of the designated features of the SSSI. However, no surveys were undertaken specifically for breeding Hen Harrier in 2022, or for any of the other raptor species included under the breeding bird assemblage feature of the SSSI.

RSPB Scotland has undertaken a comprehensive programme of satellite-tagging of Hen Harriers in Scotland over the last ten years, and tagging data has confirmed that this area is routinely used by Hen Harriers throughout the year. This data indicates that the planned forestry at Warblaw sits within one of the two most important sites used by Hen Harrier in the south of Scotland. We are also aware of data from surveys over the same area in 2019², of a male Hen Harrier observed taking food away from the site, which is a strong indication that birds were actively hunting in this area. In addition, there is confirmation of recently occupied nest within 1km from the project boundary and anecdotal records of birds foraging across the site.

¹ Habitats Regulations Appraisal (HRA), NatureScot. [https://www.nature.scot/professional-advice/planning-and-development/environmental-assessment/habitats-regulations-appraisal-hra#Introduction+to+Habitats+Regulations+Appraisal+\(HRA\)](https://www.nature.scot/professional-advice/planning-and-development/environmental-assessment/habitats-regulations-appraisal-hra#Introduction+to+Habitats+Regulations+Appraisal+(HRA))
² Findlay Ecology Services - Langholm Community Woodlands – Bird Surveys 2019

**RSPB South Scotland
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rspb.org.uk/Scotland



The RSPB is part of BirdLife International, a network of passionate organisations, working together to save nature across the world.

Hen Harrier is a Schedule 1 species which is red-listed on the BoCC. Hen Harriers prefer a mosaic of open moorland and upland grassland habitats for hunting prey, and the mosaic of upland habitats at Warblaw provide suitable hunting grounds for this species. Harriers generally avoid forested ground, so afforestation of open ground will lead to fragmentation and an overall loss of suitable upland habitats.

We note that surveys for wintering Hen Harrier were undertaken, and whilst no birds were seen, there is mention of a record regarding a bird observed flying into the site to roost, as well as historical records of a winter roost on site. As no map was provided showing the location and coverage of the vantage points used for these surveys, and given the comment in section 4.1 which states that “there are gaps in the viewshed”, along with recent and historical records of birds using this area, we agree with comment in section 6.1 of this report that “hen harrier may occasionally still use site habitats for roosting”, and we recommend that this is therefore treated as an active site.

Therefore, due to the proximity of the SPA to this proposal we **strongly recommend the following**:

- That a **data request is made to RSPB Scotland** to obtain Hen Harrier satellite tracking data for the site plus a suitable buffer.
- That a **data request is made to the local Raptor Study Group** for raptor records for the site plus a suitable buffer.
- That **surveys to record breeding Schedule 1 qualifying raptor species** within the site boundary plus an appropriate buffer are undertaken to inform the AA for the SPA.

Survey Methodology

We have some concerns regarding the survey methodology used to assess ornithological status of breeding waders and passerine species at this site and the level of coverage of these surveys.

Section 2.5 of the Breeding Bird Assessment states that a lack of gates in fences and the presence of blanket bog means that some areas were not fully surveyed for breeding birds, and were only scanned with binoculars. Due to the size of the site and the ability of some species of conservation concern to be very cryptic during the breeding season (such as Curlew), we do not believe that scanning the area from afar is sufficient in terms of survey to determine the level of use of these areas.

Whilst we welcome the completion of bird surveys, we note that the Common Birds Census (CBC) methodology was used. This survey method was superseded by the Breeding Birds Survey (BBS) methodology in 2000³. In addition, only three of the ten recommended survey visits for CBC were completed. This survey method was designed for farmland and woodland birds, and whilst it may be effective for recording certain passerine species, we would recommend that surveys should follow the modified Brown & Shepherd survey methodology designed for upland sites to record both breeding waders and passerines. In addition, we note that breeding bird surveys were previously undertaken on this site in 2019 for another application at this site entitled “Langholm Community Woodlands²”, which used modified Brown & Shepherd methodology and recorded 104 Skylark territories compared to 54 recorded through survey to inform this application. While this could be related to changes in bird status over time, it could also be due to the different survey coverage and methodologies used to assess bird status.

Therefore, **we recommend that the results of the breeding bird surveys from 2019 are considered alongside those from 2022** in relation to assessing the potential impacts and opportunities of this proposal.

³ Common Birds Census, BTO. <https://www.bto.org/our-science/publications/birdtrends/2020/methods/common-birds-census>

Black Grouse

Black Grouse is a red-listed, UK BAP species which is undergoing serious declines in southern Scotland, with only 176 lekking males recorded in 2023. Due to the status of Black Grouse in southern Scotland, it is essential that new woodland creation proposals take this species into account and not only mitigate against negative impacts, but also enhance the habitat for them.

We welcome the inclusion of survey for Black Grouse. However, the report provided does not include detail of the timings of these surveys or weather conditions, which would be useful information to provide.

We have recent records of an active Black Grouse lek approximately 4.5km to the northeast of the site boundary, as well as records from 2019 of a single male lekking on site during bird surveys for the previous iteration of this scheme³. Whilst we note that no birds were recorded during surveys in 2024, the Black Grouse survey report confirms that the habitat within the site boundary is highly suitable for Black Grouse, and the 2019 records on site confirm that Black Grouse have held breeding range here in recent years.

Black Grouse in southern Scotland require a mosaic of open upland habitats including low-density native broadleaves, Scots Pine alongside acid grassland and heath/bog habitat. Whilst habitat within non-native conifers can be used by birds for foraging or nesting at early stages of establishment, as canopy closure occurs these areas become unsuitable, which can lead to fragmentation of more suitable habitats required for lekking, nesting, and foraging.

We note that the plan includes some native broadleaves and Scots Pine, although these will mostly be surrounded by high density Sitka Spruce and/or deer fences, which are known to be of high risk for Black Grouse. There is no detail regarding planting densities, but in order for these species to provide benefit to Black Grouse they would need to be established at low density. **We therefore strongly recommend that suitable native broadleaves (Birch, Rowan, Alder, Willow and Hawthorn) are planted at low density (500 stems/ha) around the edges of this site where they meet open ground to enhance the habitat for Black Grouse.** Ideally these should be planted in clumps of variable density, which will help to create a more natural feathered edge and will also help prevent Sitka Spruce self-seeding onto adjacent habitats. We also recommend that no planting occurs on the areas of highly suitable Black Grouse habitat, as outlined in the survey report.

Breeding Waders

The BTO wader map (<https://app.bto.org/wader-map/>) shows that this site is suitable for several breeding wader species, and highly suitable for Curlew. This is backed up by the breeding bird survey results, which recorded three Curlew territories on site, as well as Oystercatcher and Snipe. Previous surveys across this area in 2019³ recorded eight Curlew territories, two of which were located in the area not covered by surveys in 2022, and due to the constraints mentioned in this report, we consider the figure of three Curlew territories to be a conservative estimate. However, the three territories recorded don't appear to have been considered in the design, with two of these being planted over entirely with Sitka Spruce, and the third within 200m of new planting.

Curlew and other waders prefer to nest in open habitats, and research^{4,5} shows that they will avoid nesting in otherwise suitable habitat if it is within 500m of trees. Therefore, we agree with the statement in the bird survey report that "This scheme will inevitably lead to the loss of nesting habitat for open ground nesting species such as curlew". As many of the farmed fields are also planned to be under trees, these potentially important wader foraging habitats will also be lost. We also agree with the recommendation that "mitigation measures should be undertaken to compensate for the loss of open habitat", which we recommend should

⁴ Curlew conservation and new woodland in Scotland – essential steps for forest managers, RSPB Scotland.

<https://reforestingscotland.org/wp-content/uploads/2020/07/Curlew-and-new-woodland-good-practice-RSPB-Scotland.pdf>

⁵ Briefing sheet: The impact of tree planting on curlew conservation, GWCT. <https://www.whatthesciencesays.org/briefing-sheet-the-impact-of-tree-planting-on-curlew-conservation/>

include measures specifically targeted at breeding waders, such as peatland restoration, scrape creation in suitable locations, and a suitable grazing regime.

We note that the centre of the site will not be planted on, which should help to mitigate for some of the impacts of this proposal on breeding waders, however, as Sitka Spruce will be planted immediately adjacent to this area, the benefit of this habitat is likely to be reduced through forest edge impacts, including avoidance and predation, as well as issues with encroachment.

We recommend that the bird survey results are used to inform changes to the design of the proposal to mitigate against any impacts on Curlew in particular, through the inclusion of an unplanted buffer around identified Curlew territories.

Priority Habitats

The habitat surveys identified large areas of Annex 1 peatland habitats dominant across the centre of the site, as well as other BAP Priority habitats. These sensitive areas of peatland and blanket bog are also likely to contain deep peat, and we agree with the recommendation in the survey report advising caution “when considering planting areas against peat depth alone”, as planting any of these sensitive habitats will lead to their degradation, regardless of peat depth. The draft design map shows that Sitka Spruce will be planted right up to the edges of these areas, which will risk impacting peatland habitats through self-seeding Sitka Spruce. In addition, works associated with afforestation including drainage and fertilisation on the adjacent ground will impact these areas further. We agree with the recommendation in the report that a peatland management plan should be created to retain and enhance these habitats.

We agree with the recommendation in the report that planting should be avoided on the flushes and species rich grassland areas to maintain their integrity. However, the design map shows that Sitka Spruce will be planted right up to the edges of these sensitive habitats, which will risk degrading them through overshadowing, self-seeding, and drainage/fertilisation.

Therefore, **we recommend that Sitka Spruce and other non-native conifers are pulled back from the areas of peatland/blanket bog, flushes, and species-rich grasslands** identified through survey work to maintain the integrity and biodiversity value of these habitats. We also **recommend that a buffer of low-density native broadleaves is established along the edges of all non-native conifer planting where it meets open habitats** to prevent issues with self-seeding.

In addition, we note that several areas of Ancient Semi-Natural Woodland (ANSW) were recorded on site. ASNW habitats are generally considered to be of high conservation and biodiversity value, and are considered to be irreplaceable. The plan shows that Sitka Spruce will be planted adjacent to some of the ASNW areas, which is likely to impact these sites through self-seeding. We note that natural regeneration of trees was recorded within several of the ANSW compartments, and **we therefore recommend that these areas are stock fenced, and that deer control is undertaken on site to allow natural regeneration to occur, rather than planting these areas.**

We would be very happy to discuss any of our recommendations further, or to meet on site if this would be helpful.

Kind Regards,

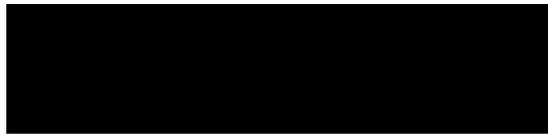


Conservation Officer

Scottish Forestry
Saughton House
Broomhouse Drive
Edinburgh
EH11 3XD

Attn: Neil Murray, South Scotland Conservator

BY EMAIL ONLY:



Dear Officers,

Scottish Woodlands Limited: woodland creation project on land totalling 1,077ha of which 473ha will be afforested (45% for sitka spruce cultivation) at Warblaw, Langholm, Dumfries and Galloway ('the Project')

1. We act on behalf of the Save Warblaw Action Group regarding the above application. We write to raise our client's real concern that the proposal may be granted by Forestry Commission Scotland without a full understanding and appreciation of the direct effects and any indirect, secondary, cumulative, transboundary, short-term, medium-term and long-term, permanent and temporary, positive and negative likely significant environmental effects of the proposed afforestation project¹ as required under The Forestry (Environmental Impact Assessment) (Scotland) Regulations 2017 ('**the Forestry EIA Regulations**'). The purpose of this letter, prior to the proposed scoping meeting, is to flag the likely significant environmental effects of this proposal, particularly in relation to the impact on the peat landscape, and the associated GHG emissions, that must form part of any legitimate EIA assessment. This is supported by independent expert evidence.
2. There is also the separate important issue, given the close proximity of the Langholm - Newcastleton Hills Special Protected Area (SPA), of the requirement for Scottish Forestry as the competent authority to undertake an Appropriate Assessment under reg. 48 of the Conservation (Natural Habitats, &c.) Regulations 1994. As the afforestation project will fundamentally change the landscape adjacent to an SPA, designated for the protection of the Hen Harrier, a species which favours open areas with low vegetation, which this project will alter. It is therefore clear that this is a plan

¹ A significant effect on local area could count as a significant effect for the purposes of the Regulations R. (oao Davies) v Carmarthenshire CC [2015] Env. L.R. 29

or project which is likely to have a significant effect on a European Site and must be assessed accordingly. Please confirm that a separate Appropriate Assessment will be conducted and consulted on.

3. Although we are solicitors admitted in England & Wales, we have significant experience in the field of environmental law, and particularly on matters relating to the European Directive 'EIA Directive 2011/92/EU' ('**the Directive**'), from which the Regulations both in England and Scotland arise, including the Forestry EIA Regulations. This includes bringing and participating in cases in the Supreme Court and the CJEU on the interpretation of the Directive, including acting for the intervener Friends of the Earth in the recent Supreme Court case of R (Finch) v Surrey County Council & ors² on the nature of the scope of assessment required under the EIA Directive.

An environmentally sensitive site

4. As previously flagged by our client³, the proposed intensive afforestation plantation is situated adjacent to the Langholm-Newcastleon Hills SPA, and SSSI, within the Langholm Hills Regional Scenic Area. The site includes areas of ancient woodland and overlooks the historic town of Langholm, with significant associations (including artwork) by Turner and an economy heavily dependent on agriculture and tourism, particularly for access to the local landscape. In short, this is one of the most sensitive sites in Southern Scotland and is simply inappropriate for such significant, and intensive, afforestation with its associated likely significant environmental effects, particularly in the context of the likely cumulative impacts which would be caused by this plantation when combined with nearby afforestation projects. These sensitivities, and associated designations, are either not identified or appreciated in the information we have seen to date and therefore must be considered in assessing the suitability of this project.
5. Furthermore, the application site is predominantly peat of varying depth. The recent UK Forestry Standard is clear that:

*'new forests should not be established on soils with peat exceeding 50 cm in depth – or a depth specified in country guidance – or on sites that would compromise the hydrology of adjacent bog or wetland habitats.'*⁴ (our emphasis)

6. As acknowledged by the applicant, there is significant extent of deep peat on the site but there has been no assessment of the impact on whether adjacent afforestation would 'compromise' adjacent habitats.
7. Separately, the peaty soils upon which the afforestation is proposed raise implications for the likely carbon emissions arising from the project. This needs separate assessment and potentially undermines any positive carbon claim as a benefit of the

² [2024] UKSC 20

³ See letters dated 17 September 2024, as well as concerns on the adequacy of the woodland creation maps (12 September 2024) and 2 October 2024.

⁴ See letters dated 17 September 2024

project, including the source of funding associated with carbon sequestration. This is discussed further below in the context of EIA.

Environmental Impact Assessment

8. Since our initial instructions, the applicant has confirmed that the Project falls under the remit of the Forestry EIA Regulations and will 'volunteer' an EIA report⁵. As the proposal is on a 'sensitive site' due to the presence of deep peat⁶ (where there is no area threshold under the Forestry EIA Regulations for a screening requirement); the afforestation area of 473ha exceeds the 20ha screening threshold by a factor of twenty; along with the requirement to consider the cumulative impact of other projects⁷. Therefore, by all threshold metrics, this is a site that clearly meets, and exceeds, the legislative threshold for the application to be positively screened. This is an application that is clearly within the remit of the Forestry EIA Regulations.
9. The fact that any doubt exists seems to be due to the apparent failure of the Scottish Forestry Commission to appropriately apply the Forestry EIA Regulations. A data review of the 900 screening assessments undertaken by Scottish Forestry since 2019 indicates that only 4 were positively screened⁸. In the Southern Scotland geographic area, none of the 217 sites were positively screened under the Forestry EIA Regulations, despite the majority exceeding the 20ha screening threshold. Although the screening assessments are not publicly available, the apparent failure to systematically apply the Forestry EIA Regulation appropriately is alarming.
10. Now that the application is accepted as an EIA application it is critical that the Directive, the Forestry EIA Regulations (reg. 5), and case law are correctly, and lawfully, applied as part of the Forestry Commission's decision making. The next stage of this application is the 'scoping' stage of the assessment to identify the effects on the environment that will be required to be assessed within the EIA report. In the absence of a screening assessment by Scottish Forestry, the scoping report will be the first opportunity for our client to understand what the Commission deems are the likely significant environmental effects that will require further analysis. It is noted that the scope of environmental impacts considered within the Forestry EIA Regulations is very broad, requiring:

'A description of the factors specified in regulation 5(3) likely to be significantly affected by the forestry project: population, human health, biodiversity (for example fauna and flora), land (for example land take), soil (for example organic matter, erosion, compaction, sealing), water (for example hydromorphological changes, quantity and quality), air, climate (for example greenhouse gas emissions, impacts relevant to adaptation), material assets, cultural heritage, including architectural and archaeological aspects, and landscape'.

⁵ Scottish Woodlands Limited press release 7 April 2025

⁶ Defined as organic soil which contains more than 60 percent of organic matter and exceeds 50cm in thickness

⁷ including the 440ha adjacent Cockplay plantation granted in June 2016

⁸ These are: Cambusmore Woodland Creation - Cambusmore Estate, Eisg Brachaidh Estate, Acha-Bheinn, Castlehill & Hillpark WC. Source of data at: <https://www.forestry.gov.scot/publicregistereia>

11. It is our client's position that it is appropriate for all of the above factors to be scoped into any EIA assessment and our clients have already made extensive comments on the likely significant effects of the proposal. We note in this regard, the range of effects scoped into the adjacent 2016 Cockplay afforestation project, including ecology, ornithology, landscape and visual assessment, archaeology, hydrology, land use balance, transport impact (from the felling and associated transportation), employment (including tourism impact) and public access. All of these are likewise clearly likely significant effects of the Project here that must be scoped in and assessed in the EIA report. This must also include and assess the cumulative impact of other projects, including but not limited to other afforestation projects.
12. A further key concern is the impact on the peat, both shallow and deep, that makes up much of the application area and gives rise to several likely significant environmental effects. The data provided from the applicant is scant and fails to appreciate the potential impact on this important landscape, particularly in relation to shallow peat. As a key resource, any disturbance, direct or indirect, on the peat land needs to be assessed, both in relation on the impact on the resource (and its ecological and hydrological impact) but also regarding it's potential climate impact. You will be aware that desiccation and disturbance of peat results in the peat becoming a GHG source, rather than a sink. Indeed, as discussed further below, up-to-date research indicates that afforestation on peats that are 20 cm deep is likely to be a net-carbon-emitter for approximately 15 years, whilst afforestation on peats of 30 cm depth may be net emitters over the entire lifetime of the project.⁹
13. Further, the recently published¹⁰ Natural England '*Definition of Favourable Conservation Status for Blanket bog*' (or deep peat) has adopted '*0.3m peat depth for defining blanket bog, ...[although] It is re-emphasised here that blanket bog may occur on peats shallower than 0.3 m, especially upon the periphery of blanket bog masses. This may be in part due to topographical variation, but it could also reflect historic land use.*' There is therefore a real need to take a precautionary approach in assessing the peat extent and a risk by rigidly adopting, the now outdated, 0.5m Forestry EIA Regulations and UKFS definition of deep peat, it is our client's approach the appropriate classification of 'deep peat' and therefore 'sensitive' landscapes whereby afforestation is prohibited.
14. It is therefore vital that these impacts of the Project are assessed as part of the EIA process, both in terms of the impact on the integrity of the peat landscape itself, but also the greenhouse emissions arising due to the disturbance.

Assessment of the Warblaw peat

15. In the applicant's information supplied to date, peat soils are confirmed across the site, including areas of 'deep peat'. However, the information is limited with insufficient data provided to consider the likely effects arising from this. The potential impacts arising from the afforestation on peat soils has not been appreciated or assessed in the environmental information provided to date.

⁹ M.-A. Smyth (2023) Plantation forestry: Carbon and climate impacts; Land Use Policy 130

¹⁰ <https://publications.naturalengland.org.uk/publication/4818679880220672>

16. Whilst it is of course ultimately for the applicant to make a detailed assessment, our client has instructed the hydrological expert Dr. Steve Buss to model the hydrological impacts of the afforestation on a 'sensitive site' within the definition of the Forestry EIA Regulations. Dr Buss's report is enclosed with this letter (**Enclosure 1**). Dr Buss's report concludes:

'This report has reviewed the proposed afforestation at Warblaw Hill with a focus on the risks to adjacent areas of deep peat, in accordance with Scottish Forestry (2021) guidelines. The key findings are as follows:

- Deep peat, defined as organic soil over 50 cm thick with >60% organic matter, is present at multiple locations within or immediately adjacent to areas of planting (Section 2). The applicant's ecologists' recommendations of a 50 m exclusion zone around areas of deep peat have not been fully respected in the planting design.*
- A peat depth survey was undertaken in 2019 but there are gaps in the survey coverage, particularly at the site boundaries. In some areas, Sitka spruce is proposed for planting without adjacent probe hole data to confirm the absence of deep peat across the site boundary, creating a risk of inappropriate planting.*
- Hydrological modelling confirms that afforestation on thin peat adjacent to deep peat may, during a dry summer, result in an ecologically significant (>10 cm) fall in the water table of the deep peat within about 20 m of the planting boundary.*

Such drawdown risks initiating subsidence, increased peat decomposition, potential degradation of peatland habitat, and increased risk of wildfire. This is especially critical given the blanket bog characteristics and the classification of such habitats under the UK Biodiversity Action Plan. Off-site impacts, if the peat were to be degraded, would include increased runoff, erosion and sediment deposition in the River Esk and tributaries. Decomposing peat releases considerable amounts of CO₂.

In conclusion, the current planting plan does not adequately mitigate the risks to deep peat. A precautionary buffer zone of at least 20 m, and ideally 50 m, should be enforced around all areas where deep peat is known or reasonably suspected to exist. Furthermore, additional survey work should be undertaken at the planting boundaries to resolve current data gaps. Without these revisions, the afforestation proposal risks breaching national guidance and causing irreversible environmental harm'.

17. Based on the advice of Dr Buss, we seek the confirmation of Scottish Forestry Commission that it will require an appropriate survey be conducted across the site, on both shallow and deep peat areas with suitable modelling also considering the impact of erosion, compaction and potential impact on inhibiting the accumulation of peat. Impact and assessment of potential erosion on water quality and quantity must also form part of the assessment. Of course, the survey will need to be released for consultation along with other environmental assessment documents and our client reserves the right to comment on the survey and its implications in due course.

18. Further, it is understood that in peat soils; to facilitate the most appropriate growing conditions for sitka spruce, drainage channels are excavated to alter the hydrology. It is unclear on the information presented whether this is proposed here but given that this is understood to be industry practice, it is critical that this is understood, and any proposal assessed as part of any future hydrology survey work undertaken by the applicant.

GHG emissions as a likely significant effect

19. As recognised by Dr Buss, there is a risk that peat (of any depth) will result in GHG emissions following disturbance. It is therefore important that any impact should be scoped into the report, particularly in relation to the impact of emissions from peat disturbance, both for 'shallow' and 'deep' peat on the site by both the planting process, haulage roads and any associated ditch network.
20. There has also been a significant amount of research on this in recent years, including since the Forestry EIA Regulations were implemented and the most recent UK Forestry Strategy was released. We enclose with this letter the academic paper '*Plantation forestry: Carbon and climate impacts*'¹¹ (**Enclosure 2**) which collates the significant body of research on this issue and observes that:

'...research shows that even where the peat is just 30 cm deep, the cultivation of peaty soils can lose more carbon than the trees can absorb in their 30-year life spans (Forest Research, 2022); and even on peats just 20 cm deep, it might take 15 years before net zero. Furthermore, the effect of the forest ditches on carbon emissions from forestry may be greater than widely appreciated, despite the warnings of Evans et al. (2016). There seems to be a mismatch between what the forestry models predict, and what is being measured in the fluvial fluxes in the rainiest and peatiest regions. Recent research (Williamson et al. (2021) found that the UK's rivers contain more carbon than the global average, and much of this appears to be coming from forest plantations. The presence of conifer plantations can double the quantity of carbon lost from peaty soils compared with un-forested catchments (Williamson et al. (2021)).'

(emphasis added)

21. It is clear from a combination of the research on this matter and the Forestry EIA Regulations that GHG emissions are a likely significant environmental effect of this project.
22. Regulation 5(2) requires that '*the environmental impact assessment must identify, describe and assess in an appropriate manner, in light of the circumstances, relating to the forestry project, the direct and indirect significant effects of the forestry project...and the interaction between those factors*'. These factors are '(c) land, soil, water, air and climate' (emphasis added).
23. Regulation 6(3) sets out the information to be included in an environmental impact assessment report, including (b) '*a description of the likely significant effects...*' and (f) '*any other information specified in Schedule 3 relevant to the specific characteristics of the EIA forestry project*'. This includes 'an estimate, by type and quantity, of expected

¹¹ M.-A. Smyth (2023) *Plantation forestry: Carbon and climate impacts* Land Use Policy 130

residues and emissions (such as water, air, soil...)¹²; ‘description of the factors specified in regulation 5(3) likely to be significantly affected by the forestry project: ... climate (for example greenhouse gas emissions, impacts relevant to adaptation),...’¹³, ‘the use of natural resources, in particular land, soil, water and biodiversity, considering as far as possible the sustainable availability of these resources’¹⁴ and ‘(f) the impact of the forestry project on climate (for example the nature and magnitude of greenhouse gas emissions)’.

24. In making these assessments, the report should include: ‘A description of the forecasting methods or evidence, used to identify and assess the significant effects on the environment, including details of difficulties (for example technical deficiencies or lack of knowledge) encountered compiling the required information and the main uncertainties involved.’¹⁵
25. As noted above, the Forestry EIA Regulations implement the Directive. In interpreting similar regulations in England which implemented the Directive in the context of the planning regime there, the Supreme Court made clear that the Regulations must be interpreted in line with the Directive they were intended to implement¹⁶ and that the Directive is wide in scope and its purpose very broad, namely to “ensure that decisions whether to give development consent for projects which may affect the environment are made on the basis of full information.”¹⁷ The Court further emphasized that there was a “need for comprehensive and high-quality information about the likely significant environmental effects of a project. . . . Nowhere is this more so than where issues arise relating to climate change.”
26. It may also be noted that the Supreme Court put significant emphasis on the need for public participation in the EIA process, including the right to consider and comment on the environmental information disclosed.¹⁸
27. As the Forestry Regulations envisage, the scoping in of GHG emissions in the EIA assessment is important for three reasons:
 - a. First, as an important carbon store, and as set out in the peer-reviewed article by Smyth (2023), any disturbance of the shallow and deep peat is likely to result in a release of GHG. Such disturbance can be both direct (i.e. from the planting process) or indirect (e.g. the impact of afforestation on the hydrology of the area planted and adjacent areas resulting in the peat drying out, as well as the end use of the mature trees). This is understood to be capable of both being assessed and forecasted.

¹² Schedule 3 para.1(d)

¹³ Schedule 3 para 4

¹⁴ Schedule 3 para 5 (b)

¹⁵ Schedule 4 para 7

¹⁶ *Finch*, para. 11.

¹⁷ *Finch*, para 61.

¹⁸ *Finch*, paras. 21, 63.

- b. Second, as the EIA Regulations make clear, a likely significant environmental effect of a project can be both positive or negative, see Schedule 3 para. 6¹⁹. As the applicant is promoting the potential positive impact of the afforestation fulfilling the Scottish Government's targets on climate change²⁰, it is therefore important that any claimed positive impact is both assessed (including forecasting) of the impact in the context of the peat landscape. For Scottish Forestry to make an informed decision on the proposal, the likely significant environmental effect of GHG emissions (either positive or negative) must be understood.
- c. Third, the EIA report is required to include reasonable alternatives studied by the applicant²¹ and measures '*envisaged to avoid, prevent or reduce and, if possible, offset likely significant environmental effects on the environment*'²² by including GHG emissions as a likely significant environmental effect, and the forecasting of the impact, this can be considered as part of assessment of mitigation and potential alternatives.
- d. Fourth, The UK Forestry Standards 2023 state '*Woodland creation and forest management should contribute to climate change mitigation through the net capture and storage of carbon in the forest ecosystem and in wood products, through appropriate management objectives.*' Given there is a real potential that planting on deep and shallow peat soil will result in the UKFS good practice requirements not being met, it is essential that this is assessed at this earliest possible stage.
- e. Fifth, clearly in the context of a project which seeks to promote itself as providing benefits including "fulfill[ing] targets on climate change"²³ even small net negative carbon emissions are highly material and significant.

28. Further, should the GHG be 'scoped out', there will be insufficient information before the Forestry Commission to make a decision with full knowledge of the likely significant environmental effects, including the rationality of any subsequent funding decision for the afforestation based on its alleged GHG sequestration contribution.

Next steps & Conclusion

29. We understand that the next stage is a 'scoping meeting' with consultees (including statutory consultees). For our client to be able to adequately participate in the meeting, we request that all documents, including the 'issues log', are made available to our client well in advance of the meeting. We also request that this letter is included in the information pack.

¹⁹ 'The description of the likely significant effects on the factors specified in regulation 5(3) should cover ... positive and negative effects of the forestry project.'

²⁰ Scottish Woodland Ltd Community Consultation: Woodland Creation proposal around Langholm & Canonbie (19.04.23)

²¹ Reg. 6(3)(d)

²² Reg. 6 (3)(c)

²³ Scottish Woodland's community presentation slides

30. As recently articulated in *Finch*, the Supreme Court confirmed:

“It is essential to the validity of the decision that, before it is made, there has been a systematic and comprehensive assessment of the likely significant effects of the project on the environment in accordance with the EIA Directive...”

31. It was also emphasised the importance of public participation in the EIA process:

“The directly enforceable right of the citizen which is accorded by the [EIA] Directive is not merely a right to a fully informed decision on the substantive issue. It must have been adopted on an appropriate basis and that requires the inclusive and democratic procedure prescribed by the Directive in which the public, however misguided or wrongheaded its views may be, is given an opportunity to express its opinion on the environmental issues.”²⁴

32. The Supreme Court’s analysis should be at the heart of all future decision making by Scottish Forestry, including engagement with our clients. We hope that given the recent agreement that this is an EIA application, there will be a thorough review of the likely significant effects on the environment of the proposal, including the reasonable alternatives given the harms that have already been identified by our clients. It is only with such information, and with the participation of the public, that a lawful decision on this application is possible.

Yours faithfully



RICHARD BUXTON SOLICITORS

Encls.

²⁴ Para 63.

ENCLOSURE 1

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WARBLAW HILL: IMPACT ON CONIFER PLANTING ON DEEP PEET HIDROLOGY

Dr Stephen Buss MA MSc CGeol

16 June 2025

Stephen Buss
Environmental Consulting Ltd

Warblaw Hill: Impact on Conifer Planting on Deep Peat Hydrology

Version control log

Document number	Date	Issued by	Issued to	Comments
2025-005-014-001rev1	16 June 2025	Steve Buss	SWAG	Final
2025-005-014-001	9 May 2025	Steve Buss	SWAG	First draft

Client: Save Warblaw Action Group

Dated: June 2025

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Registered in England and Wales number 08595273

DISCLAIMER

This report has been prepared by Stephen Buss Environmental Consulting Ltd (SBEC) in its professional capacity as hydrogeologist, in a manner consistent with the level of care and skill ordinarily exercised by members of the geological and engineering professions practising at this time, within the agreed scope and terms of contract, and taking account of the manpower and resources devoted to it by agreement with its client.

The advice and opinions in this report should be read and relied on only in the context of the report as a whole. As with any environmental appraisal or investigation, the conclusions and observations are based on limited data. The risk of undiscovered environmental impairment of the property cannot be ruled out. SBEC cannot therefore warrant the actual conditions at the site and advice given is limited to those conditions for which information is held by SBEC at the time. The findings are based on the information made available to SBEC at the date of the report (and will have been assumed to be correct) and on current UK standards, codes, technology and practices as at that time.

This report is provided to the client addressed above. Should the client wish to release this report to any other third party for that party's reliance, SBEC accepts no responsibility to any third party to whom this report or any part thereof is made known. SBEC accepts no responsibility for any loss or damage incurred as a result, and the third party does not acquire any rights whatsoever, contractual or otherwise, against SBEC except as expressly agreed with SBEC in writing.

The findings do not purport to include any manner of legal advice or opinion. New information or changes in conditions and regulatory requirements may occur in future, which will change the conclusions presented here.

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1. Introduction

1.1 Background

Warblaw Hill overlooks Langholm, and the valley of the River Esk, in Dumfries and Galloway. Scottish Woodlands Ltd has submitted an application for the planting of 330 hectares of non-native forestry on the sites of Warblaw Hill. Figure 1.1 shows the site location and areas of proposed planting.

Scottish Forestry (2021) guidelines on environmental impact assessment for forestry clearly state that afforestation must not take place in an area where there is deep peat soil. Deep peat soil is defined as organic soil that contains more than 60% organic matter and exceeds 50 cm in thickness. The UK Forestry Standard (2023, page 102) goes further to say that “new forests should not be established on... sites that would compromise the hydrology of adjacent bog or wetland habitats.”

Whilst a survey has been undertaken to identify areas of deep peat within the overall site, the proposed extent of planting has been carefully drawn to avoid the locations of deep peat by only a few metres, or in some locations not at all. The detail of the survey and the planned afforestation is discussed in Section 2.

Scottish Forestry (2021) goes no further to describing why deep peat should be protected. Deep peat locks up a significant amount of carbon whilst it remains saturated. Cultivation and drying-out of deep peat releases much of the stored carbon. Furthermore blanket bogs are an Annex 1 habitat under the Habitats Directive.

1.2 Environmental Setting

The site comprises two hills to the west and south west of Langholm, and west of the River Esk (Figure 1.1). Warblaw Hill is the highest point, in the northern part of the site rises to 281 m above Ordnance Datum (AOD), and Hagg Hill, in the southern part of the site, rises to 148 m AOD. The northern and eastern slopes of the hills are the targeted areas for afforestation.

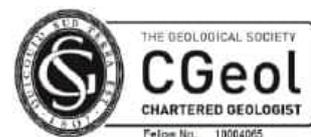
The sides of the hills are drained radially by a number of small streams. The streams that flow eastwards drain directly into the River Esk. The streams that flow northwards off the side of Warblaw Hill enter Wauchope Water which is, itself, a tributary of the River Esk.

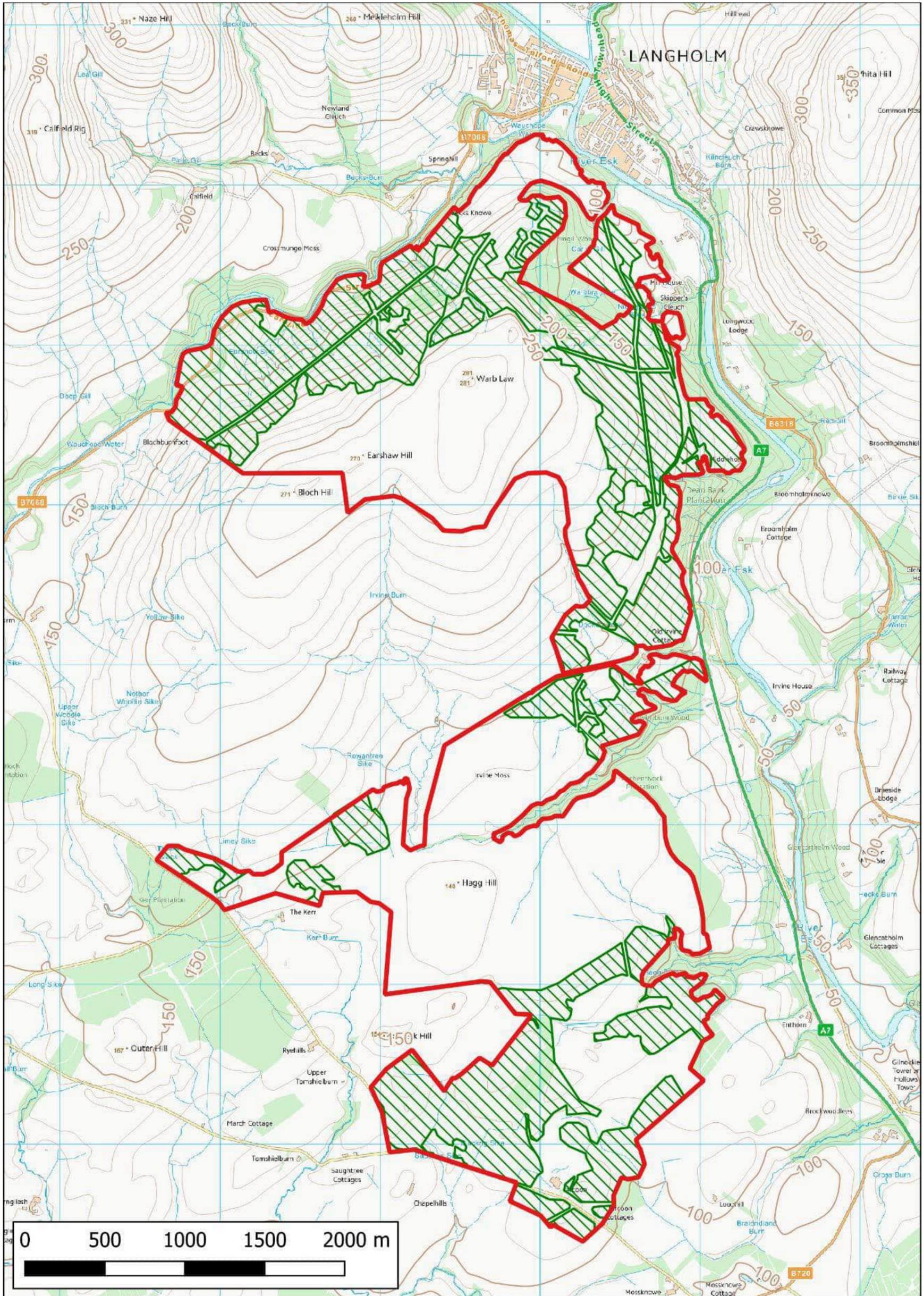
The hilltops are covered in peat bogs. The central part of the site, between Warblaw Hill and Hagg Hill comprises drier moor and heathland (Figure 1.2). There is rough grazing on the northern side of Warblaw Hill, and existing woodland on the lower eastern slopes of the hills.

1.3 This Report

The Save Warblaw Action Group (SWAG) has commissioned Stephen Buss Environmental Consulting Ltd (SBEC) to review the adequacy of the survey undertaken, and to propose an appropriately sized buffer zone between the deep peat and the shallow peat that is to be planted on, so that there is no risk of change in the hydrology of the deep peat.

The report has been prepared by Dr Stephen Buss MA MSc CGeol. Dr Buss is a UK-based independent hydrogeologist with more than 25 years' consulting experience in solving groundwater issues for regulators, water companies and other private sector organisations. Dr Buss's CV and publications list is available at www.hydro-geology.co.uk.





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Figure 1.1: Location of site (red outline) and proposed planting (green hatch)

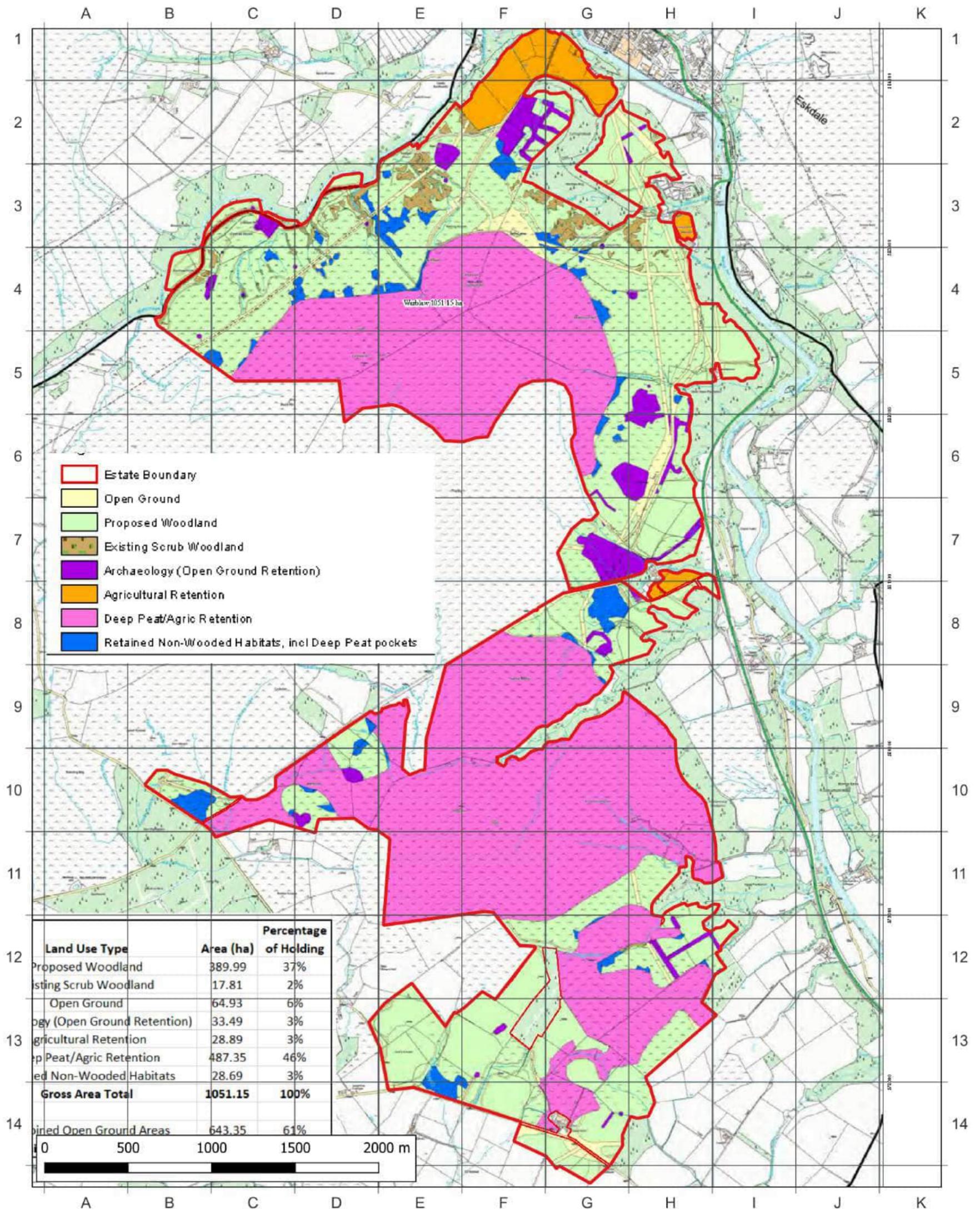


Figure 12: Land use map

After Findlay (2019)

2. Peat Investigation and Planting

In August and September 2019, a survey of the depths of peat was undertaken by Findlay Ecology Services. The measured depths are shown, overlaying the proposed planting plan, in Figure 2.1.

The planting plan clearly shows the dominance of Sitka spruce within in the plantation as a whole, but especially as Sitka spruce is being planted at the highest elevations, i.e. closest to the deep peat. Hence calculations in Section 3 mainly explore the impacts of Sitka spruce on the hydrology of peat.

There are areas, however, where afforestation is due to be undertaken on, or very close to areas where a depth greater than 50 cm has been measured. The following coordinates (e.g. B4) refer to the grids on Figure 2.1.

- B4 the site of one >50 cm measurement is assigned to open ground, but is proposed to be surrounded by Sitka spruce.
- C4 the site of one >50 cm measurement is on the boundary of Sitka spruce planting.
- D4 there are two locations where the >50 cm measurements are assigned to open ground, but are proposed to be surrounded by Sitka spruce.
- E4 the site of one >50 cm measurement is proposed to be surrounded by 75% Scots pine and 25% birches.
- G4 the site of one >50 cm measurement is proposed to be surrounded by 75% Scots pine and 25% birches. There is also one >50 cm measurement on the boundary of Sitka spruce planting.
- G5 There are two >50 cm measurements on, or just inside, the boundary of Sitka spruce planting.

There are also many locations where Sitka spruce has been proposed but there were no probe holes adjacent to the proposed planting areas to have delineated the deep peat at the margin of planting. These are usually, but not always, across the site boundary where there was probably no access for probe holes off-site. These locations are marked on Figure 2.2, and comparison with the land use map of Figure 1.2 shows how these proposed plantings abut areas mapped as deep peat.

In the site ecological survey Findlay Ecology Services (2019) recommends that no planting take place within 50 m of a known 'deep peat' area. It is also noted that there can be peatland vegetation communities present on 30 to 50 cm of peat which effectively represent blanket bog habitat, which is a UK biodiversity action plan (UKBAP) habitat that should also not be planted upon. 50 m exclusion zones are marked on Figure 2.3 as a preliminary guide to the extent of ground where planting is proposed and where there is deep, or nearly deep (30 to 50 cm) peat. Most of the buffer zones have been avoided, but there are significant areas within the buffers,

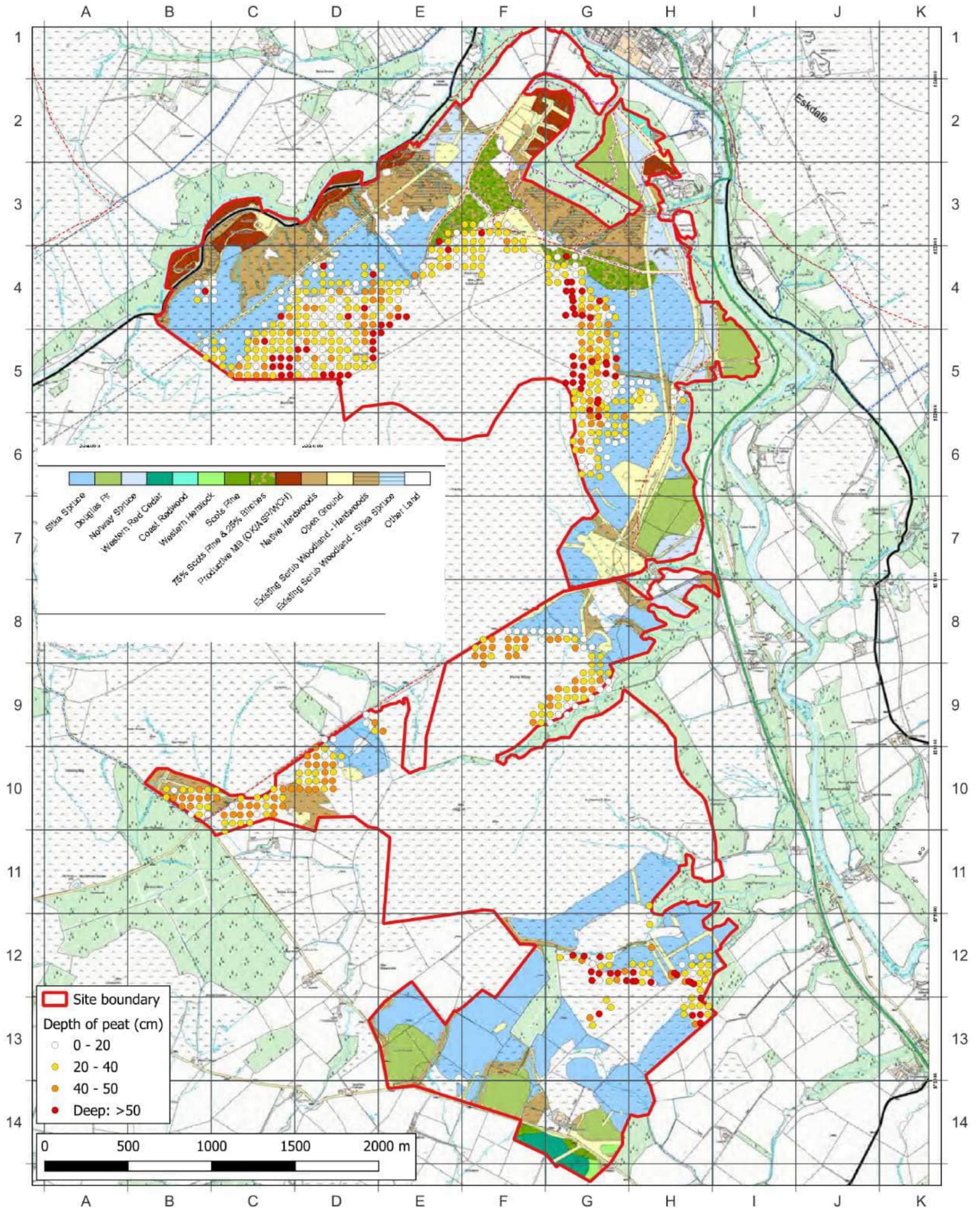


Figure 21: Proposed planting design, and peat survey results

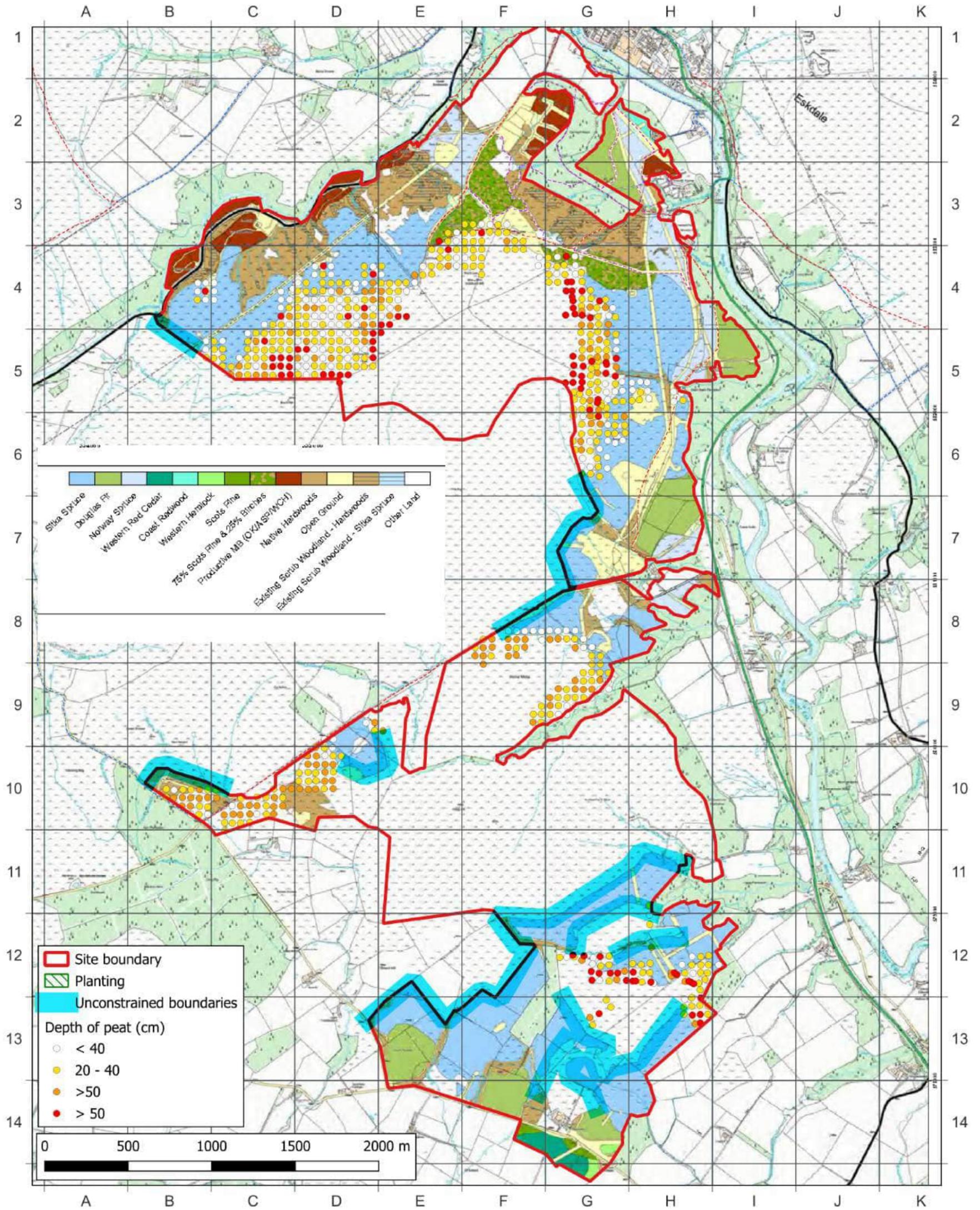


Figure 2.2: Boundaries of planting with no probe holes to confirm absence of deep peat

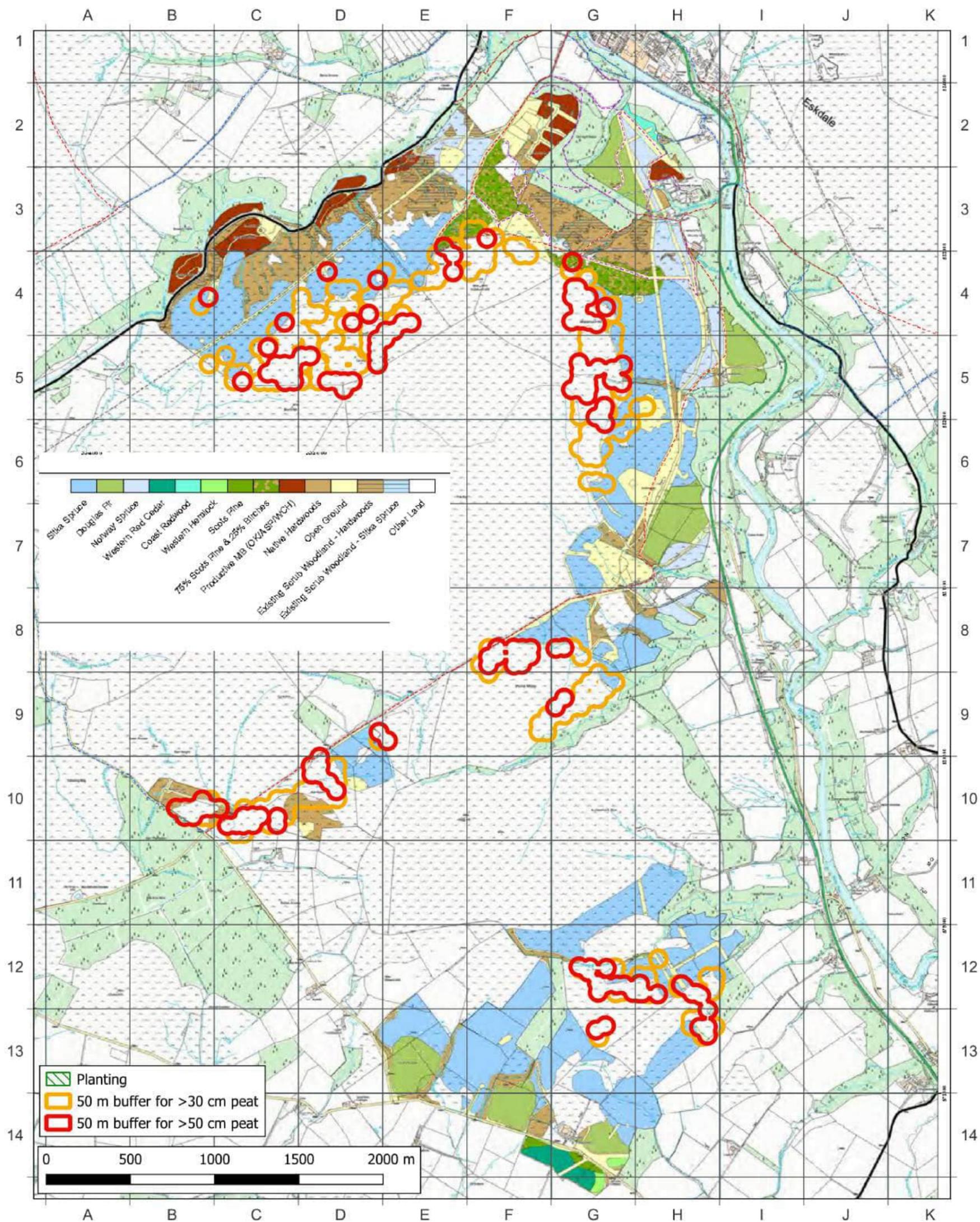


Figure 23: 50m buffer zones around areas with >50 cm and >30 cm peat

3. Hydrology

3.1 Overview

Upland ombrotrophic peatlands (e.g. blanket bogs in the UK) are waterlogged ecosystems that accumulate peat over millennia. A high water table (often at or within ~10 cm of the surface) is crucial to their function (moorsforthefuture.org.uk). This near-surface saturation keeps peat soils anoxic, preserving stored carbon and allowing peat-forming *Sphagnum* mosses to thrive.

The biggest risks to peatlands are related to activities that drain or otherwise desiccate the peat (Price et al., 2023). This can result in subsidence because of the increased effective stress associated with a lower water table; such subsidence is only partially reversible upon rewetting. Additional subsidence occurs with lowered water tables as a result of enhanced decomposition by aerobic microbes, which is non-reversible.

Subsidence alters the structure, and so hydraulic properties, of the peat. Peat collapse reduces its porosity and permeability and increases its water retention capacity (Price et al., 2023).

Subsidence of the peat surface can also result in a large-scale change in interactions with adjacent ecosystems because the lowered surface can induce increased surface and groundwater inflows from adjacent non-peat area. Channels may form in areas of subsidence, leading to erosion.

In peatlands, the impact of drainage increases with ditch depth and decreases with distance from the ditch. To a certain extent, drainage is attenuated at greater distances because peat subsidence associated with drainage reduces the hydraulic conductivity of peat, thus its potential to drain. Existing drains ('grips') used in the forestry on the southern side of Warblaw Hill are separated by between about 30 to 50 m (Figure 3.1), which suggests that the foresters expected a radius of influence of drainage in local peat of about 15 to 25 m.

Drainage of peatlands for forestry often results in even lower water tables due to enhanced water loss from transpiration by the trees. As the root systems of trees often penetrate much deeper into the groundwater than shallow-rooted shrubs common in peatlands, there is a greater loss of water directly from below the water table than with shrubs alone. The lowered water table may lead to inflows of groundwater from adjacent areas.

Transpiration losses in conifer plantations is not particularly high across a year. Heal et al. (2004) cite several studies that suggest an annual total of 300-350 mm. This range is repeated by Nisbet (2005). But late spring and early summer are the periods when tree growth is at its maximum and transpiration is highest. During this key season, transpiration in combination with lower rainfall (minus interception), may lead to a net negative water balance in conifer forest soils. With the very shallow water table characteristic of peat environments, the water can be drawn in by the trees from adjacent areas: i.e. possibly from deep peat if it is close enough.

3.2 The Impact of Conifer Trees on Adjacent Land Uses

This sub-section explores the potential impact of the spring/summer net imbalance of soil water on adjacent peat water storage. A generalised model of the forested thin peat adjacent to un-forested thick peat is built in MODFLOW to demonstrate the range of dewatering impacts.

An individual Sitka spruce in a forest, at a density of 3300 stems per hectare, is estimated to use up to 18 litres of water per day (equivalent to 59 400 L/ha) (Nisbet, 2005). Most of the time rainfall exceeds this amount, and when there is no rainfall, the release of water stored within the porosity of the peat surrounding the trees supplies the deficit. For this model scenario it is

assumed that there is a very dry summer, with no effective rainfall for 90 days. Water to supply the trees therefore is drawn in from adjacent land.

Whilst trees might be planted in peat of less than 50 cm thickness, adjacent to peat that is greater than 50 cm in thickness, they will be able to draw groundwater laterally from the deep peat to satisfy the trees' demand. A schematic cross-section of the model is shown in Figure 3.2. The rock beneath the peat is assumed to have a much lower permeability than the peat, so the hydraulic interaction is all within the peat layer.

In a comprehensive study of peat in the northern hemisphere Morris et al. (2022) indicates that the permeability of blanket peat tends to lie between c. 6×10^{-8} and 2×10^{-6} m/s. Available data on storage coefficient is limited, but data in Boelter (1968) suggests that a range between 0.12 and 0.60 is probably appropriate to assume.

The MODFLOW model was parameterised as above, and was run four times with four sets of hydraulic parameters reflecting the 2x2 matrix of permeability vs. storage coefficient. A storage coefficient of 0.12 was too low to sustain the transfer of water through the peat so a value of 0.30 was used because that was the lowest that was feasible.

Summary results are shown in Table 3.1: these are presented as the drawdown in deep peat at 10 m and 20 m from the forest edge, after 90 days; and as the distance from the forest edge of the 10 cm drawdown contour.

Table 3.1: Simulated drawdown

Permeability (m/s)	Storage coeff. (-)	Drawdown at 10 m (cm)	Drawdown at 20 m (cm)	Distance of 10 cm drawdown contour (m)
6×10^{-8}	0.12	<i>Not a feasible parameterisation</i>		
6×10^{-8}	0.30	0	0	1
6×10^{-8}	0.60	0	0	1
2×10^{-6}	0.12	21	6.0	13
2×10^{-6}	0.60	1.5	0	5.5

A c. 10 cm fall in water level can shift species composition, favouring shrubs over *Sphagnum* (Lunt et al., 2010). If the water table oscillates around 15 to 20 cm depth briefly, an intact bog may recover, but drawdowns approaching 20 cm sustained for several weeks in growing season are often seen as a threshold for damage. At c. 10 cm drawdown, much of the upper layer of peat becomes unsaturated, potentially leading to higher CO₂ release. Peatland managers often aim to keep water tables above 10 cm from the ground surface; for example, some restoration benchmarks are: “water level within top 10 cm for 70% of the year”, “Constant water table approx.. 10 cm below surface”, “Stable water tables, at surface in winter, 10 cm below in summer”, “ground water level within 15 cm of surface all year” (Bonnett et al., 2009).

Hence, in the reasonable worst-case reasonable model parameterisation (high permeability and low storage), ecologically damaging drawdown could occur up to about 20 m from the forest margin.

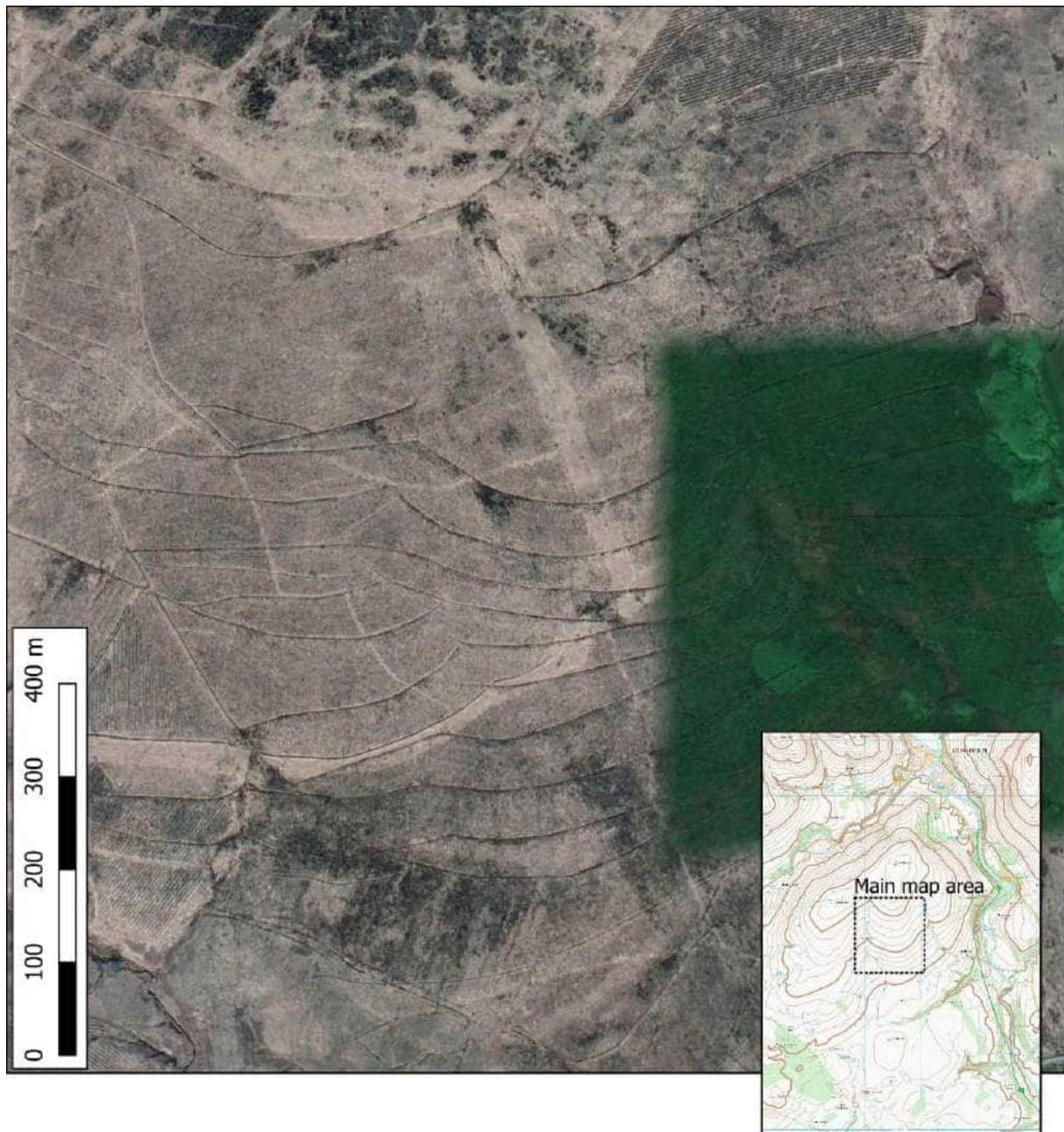


Figure 3.1: Peatland grips (drains) prior to afforesting the south side of Warblaw Hill

Google Earth Pro image dated March 2022

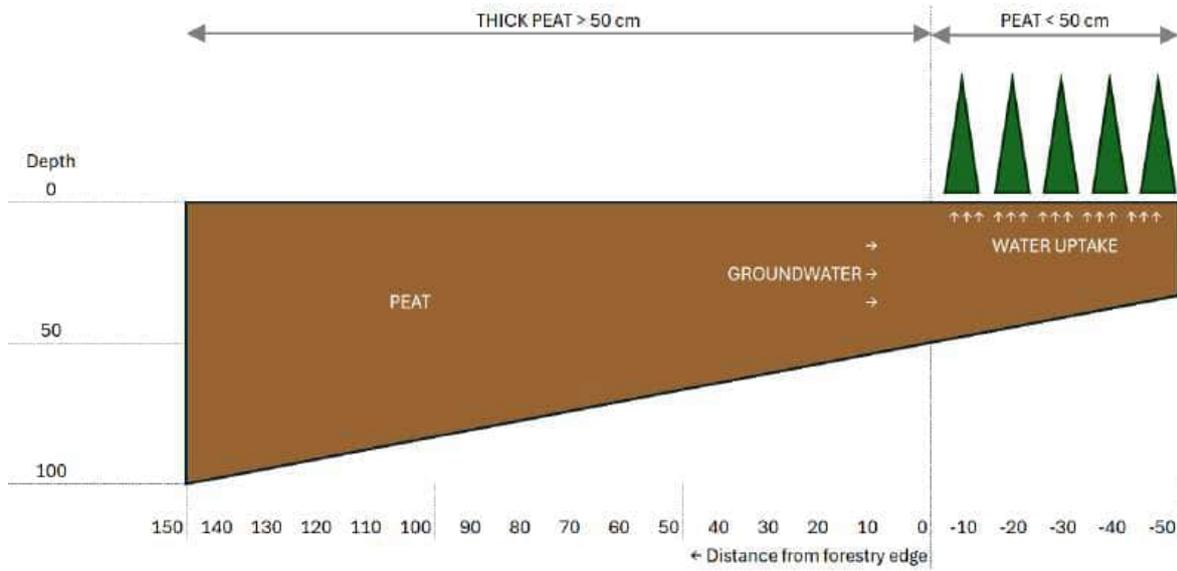


Figure 3.2: Schematic cross-section of modelled deep peat transition to forestry

(There are more than 5 trees in the model.)

4. Conclusions

This report has reviewed the proposed afforestation at Warblaw Hill with a focus on the risks to adjacent areas of deep peat, in accordance with Scottish Forestry (2021) guidelines. The key findings are as follows:

- Deep peat, defined as organic soil over 50 cm thick with >60% organic matter, is present at multiple locations within or immediately adjacent to areas of planting (Section 2). The applicant's ecologists' recommendations of a 50 m exclusion zone around areas of deep peat have not been fully respected in the planting design.
- A peat depth survey was undertaken in 2019 but there are gaps in the survey coverage, particularly at the site boundaries. In some areas, Sitka spruce is proposed for planting without adjacent probe hole data to confirm the absence of deep peat across the site boundary, creating a risk of inappropriate planting.
- Hydrological modelling confirms that afforestation on thin peat adjacent to deep peat may, during a dry summer, result in an ecologically significant (>10 cm) fall in the water table of the deep peat within about 20 m of the planting boundary.

Such drawdown risks initiating subsidence, increased peat decomposition, potential degradation of peatland habitat, and increased risk of wildfire. This is especially critical given the blanket bog characteristics and the classification of such habitats under the UK Biodiversity Action Plan. Off-site impacts, if the peat were to be degraded, would include increased runoff, erosion and sediment deposition in the River Esk and tributaries. Decomposing peat releases considerable amounts of CO₂.

In conclusion, the current planting plan does not adequately mitigate the risks to deep peat. A precautionary buffer zone of at least 20 m, and ideally 50 m, should be enforced around all areas where deep peat is known or reasonably suspected to exist. Furthermore, additional survey work should be undertaken at the planting boundaries to resolve current data gaps. Without these revisions, the afforestation proposal risks breaching national guidance and causing irreversible environmental harm.

References

- Bonnett, S.A.F., Ross, S., Linstead, C. and Maltby, E., 2009. A review of techniques for monitoring the success of peatland restoration. University of Liverpool. Natural England Commissioned Report number 086.
- Findlay Ecology Services, 2019. Langholm Community Woodland Vegetation Survey.
- Heal, K.V., Stidson, R.T., Dickey, C.A., Cape, J.N. and Heal, M.R., 2004. New data for water losses from mature Sitka spruce plantations in temperate upland catchments. *Hydrological Sciences Journal*, 49, 477-493.
- Johnson, R.C., 1990. The interception, throughfall and stemflow in a forest in Highland Scotland and the comparison with other upland forests in the UK. *Journal of Hydrology* 118, 281-287.
- Lunt, P., Allott, T., Anderson, P., Buckler, M., Coupar, A., Jones, P., Labadz, J. and Worrall, P., 2010. Peatland Restoration. Report for the IUCN UK Peatland Programme's Commission of Inquiry on Peatlands
- Milne, R., 1981. The role and use of water in Sitka spruce plantations. In: Last, F.T. and Gardiner, A.S., (eds.) *Forest and woodland ecology: an account of research being done in ITE*.
- Morris, P. J., Davies, M. L., Baird, A. J., Balliston, N., Bourgault, M.-A., Clymo, R. S., et al., 2022. Saturated hydraulic conductivity in northern peats inferred from other measurements. *Water Resources Research* 58, e2022WR033181.
- Nisbett, T., 2005. Water Use by Trees. Forestry Commission Information Note.
- Price, J.S., McCarter, C.P.R. and Quinton, W.L., 2023. Groundwater in Peat and Peatlands. The Groundwater Project.
- Scottish Forestry, 2021. Environmental Impact Assessment for Forestry Projects. <https://gw-project.org/books/groundwater-in-peat-and-peatlands/>
- UK Forestry Standard, 2023. The government's approach to sustainable forestry. https://assets.publishing.service.gov.uk/media/651670336a423b0014f4c5c0/Revised_UK_Forestry_Standard_-_effective_October_2024.pdf

ENCLOSURE 2

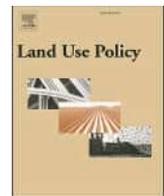
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PLANTATION FORESTRY: CARBON AND CLIMATE IMPACTS

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17 April 2023



Plantation forestry: Carbon and climate impacts

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ABSTRACT

Conifer forestry is expanding rapidly across western parts of the British Isles. This is promoted as good for climate, carbon and biodiversity. However, many spruce plantations are established by draining and disturbing peaty soils, which then release carbon and impair river ecosystems. This ‘viewpoint paper’ focuses on Scotland, and asks that investors and policy-makers recognise the damage being done by rapid afforestation and restocking. The author focusses on the drainage of peaty soils, and suggests that the incentives driving these changes are corrected in order to favour a better kind of forest.

1. Introduction: plantations on peaty soils

It is widely assumed that trees are good for the climate, but this is not necessarily the case, especially for some plantation forestry (Matthews et al., 2020; Brown, 2020). This viewpoint paper notes that most of the plantations in Scotland are emitting carbon, because current spruce plantation establishment and restocking techniques involve intensive draining of organic soils.

The problem is widespread in Southern Scotland, where investment forestry is booming. Conifers account for 57 % of new planting in the UK, but more than 75 % of Forestry and Land Scotland’s 2020 planting (<https://forestryandland.gov.scot/blog/there-s-more-to-conifers>), and up to 88 % of new planting in southern Scotland (Southern Uplands Partnership, 2022). Most of this is one species, Sitka Spruce, a fast-growing American evergreen, planted densely so that little light reaches the forest floor. Sitka spruce is straight and easy to mill; cropped now in 30–35 year rotations (Confor, 2018), it is one of the fastest growing trees in the world, and prized because plantations sequester carbon fast from the atmosphere. However, most of Scotland’s carbon is stored in peaty soils (NatureScot, 2015); wet peaty soils are where afforestation has prevailed (Brown, 2020) and when spruce is planted intensively on peaty soils (Map 1), especially where ditches are present, plantations can emit more carbon than they sequester (Matthews et al., 2020).

Forestry guidelines have recently been tightened to discourage new plantations on deep peat and to reduce cultivation intensity (Scottish Forestry, 2021), but clear-felled sites are still being replanted on deep peats, and drainage is still continuing on carbon-rich peaty soils (10–50 cm peat) (Scottish Forestry, 2022), all of which would be safer

left intact, because carbon is stored more permanently in the soil than in biomass (Gregg et al., 2021). Map 1 illustrates how plantations imposed on peaty soils are particularly characteristic of the Galloway Forest Park, Kintyre and Argyll. These areas lie within the Atlantic Rainforest zone (Shrubsole, 2022; Averis, 2022), the UK’s wet west, where rainfall can exceed 2000 mm per year, and the soils are organic (Map 1), where natural ecosystems favour wet woodlands and peatlands, and where engineering sites for spruce plantations involves draining land and flushing away excess water.

2. Plantations and greenhouse gas

Trees sequester carbon into biomass, and much of the industry research focusses on this beneficial impact. More recent investigation focusses on the soil, where three quarters of the carbon in UK forests is stored (Vanguelova et al., 2013; Vanguelova et al., 2018). Many of the soils available to spruce plantations in Scotland are wet, peaty and carbon-rich.

- Trees usually lock up carbon in soil (Laganierie et al., 2010; Sloan et al., 2019); but in peaty soils, the combination of decomposing litter and active tree roots causes peat to lose carbon (Vanguelova et al., 2018). For conifer forests on peat, the loss of deep soil carbon (Lilly et al., 2016) has been under-reported, because most studies only examine the topsoil (Mayer et al., 2020).
- Cultivation mobilises soil carbon. Mechanical cultivation is used to accelerate commercial forest establishment (Scottish Forestry, 2021). Cultivation techniques for plantations are often more intensive than those used for arable farming, and take place on

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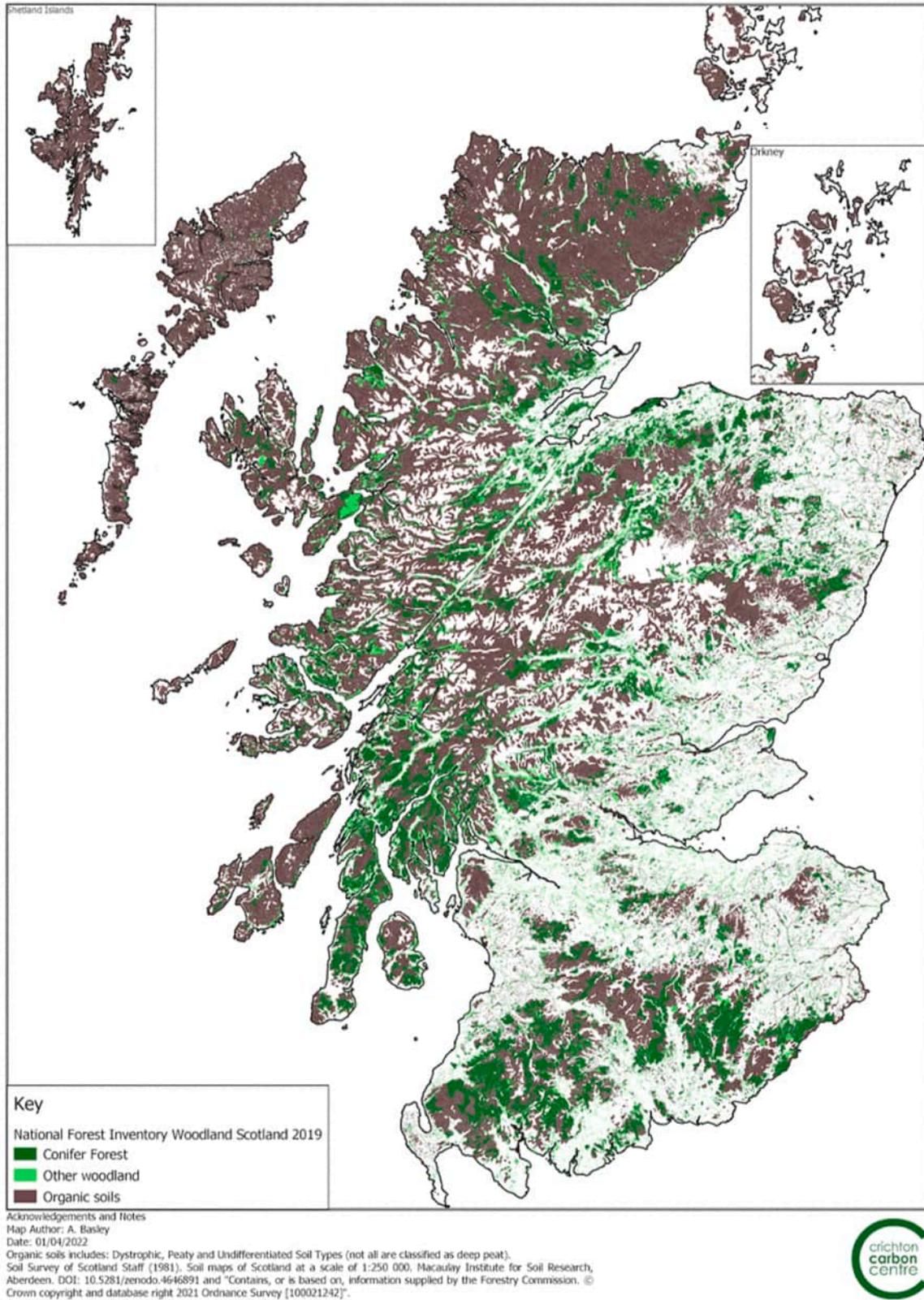
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Indicative map showing organic soils and forests



Map 1. Organic soils and forests in Scotland (Basley, 2022).

comparatively wild soils (including those which have never previously been ploughed). Techniques include ploughing, ripping, mounding and scarifying, and the use of fertilisers and weed-killers. At restocking, the cultivation effort is often even more intensive, because the tree-stumps, furrows and brash make the site very rough.

- Ditches have an unexpectedly powerful impact on carbon in peat; yet draining peaty soils is common practice in the UK (Evans et al., 2017a, 2017b). Drainage of peatland is thought to give rise to more emissions than any other land use change (Evans et al., 2016), and although important research has begun in areas with less than 1000 mm rainfall per year such as the Flow Country (Hermans et al., 2019), less is known about zones with much higher rainfall. Despite reminders that ditches should be accounted for (e.g. Peacock et al., 2021) many carbon flux studies do not properly describe or measure the impact of ditches on soil carbon.

2.1. Peat and peaty soils

Peat is formed of carbon, but is so slow growing that it is effectively non-renewable; an un-fossilised coal. In wet moorland soils, the carbon is stable if the peat is wet, but the carbon dissipates if the soil dries out. People have been trying to drain peat for centuries (Zehetmayr, 1954; Evans et al., 2016); unconcerned that carbon was being released (Vanguelova et al., 2018), and that carbon was flowing from the peat into the rivers. Fluvial organic carbon varies rapidly over time and space: fluvial carbon fluxes are often low during droughts, high (and difficult to measure) during post-drought floods and snow-melt; and the organic matter de-gases rapidly downstream (Cory et al., 2015; Evans et al., 2016), so often escapes un-measured.

2.2. Drainage ditches in peaty soils

Good drainage is effective in achieving rapid forest growth, and the timber industry engineers the land to suit spruce. Tracked excavators dig networks of ditches to remove water from wet sites (Anderson and Peace, 2017; Sloan et al., 2019). The modification of thousands of hectares of sensitive peaty ecosystem is intensive, yet this degree of upland and forest drainage is particular to the UK and Ireland (Evans et al., 2017a). When preparing a site for plantation, even sites that had previously been moor-gripped are re-drained; ditches are re-excavated and connected into an integrated drainage system. If the forest design and river buffering is exceptionally good (for example at the salmon river Halladale, Shah, Nisbet and Broadmeadow, 2021), conifer forestry need not damage the freshwater ecology. However, common practice in Scotland is much more intense, and in rainstorms, the furrows and ditches flush peaty carbon over the 'buffers' into streams. Ditches are anthropogenic features for which emissions need to be internationally accounted (Peacock et al., 2021), but the issue has not yet received sufficient research focus in the UK. Ditching and removal of 'excess water' seems to have become integral to commercial forestry culture (*pers. comm.* from several forestry contractors, 2022), in order to increase growth rates and enhance machine accessibility, yet new native woods, for example those planted by Trees for Life (McConnell *pers. comm.*), are not drained so intensively.

Although Scottish rivers are traditionally peaty, peatiness has increased in the last 30 years, especially downstream from conifer plantations (Blacklocke, 2016; Pickard et al., 2022; Jovani-Sancho et al., 2021). Rivers from drained forests on peaty soils have been estimated to release around 9.91 tonnes carbon dioxide equivalent per hectare per year (Evans et al., 2017a). Warm, dark, acidic, peaty water is detrimental to river water quality, river biodiversity, and reservoir water treatability (Freeman et al., 2001; Sloan et al., 2019), and has been linked to problems for water supply companies, creating public health issues (Ritson et al., 2014; Williamson et al., 2021). It had been thought that river acidification was mainly caused by atmospheric pollutants; yet

now that the atmospheric pollutants are reduced, the peat-forested rivers remain too acidic for salmon to return. River headwater acidity is particularly acute in South West Scotland in the Galloway Forest Park, where unpublished but publicly available data shows that the rivers are the most acid in Europe, with acidity peaks intense enough to kill juvenile salmon (pH below 5.5, and sometimes as low as 3.7), and fish are now extinct from many areas of heavily drained peatland afforested with coniferous plantations.¹

2.3. Plantation practices: cultivation, clearfelling and restocking on peaty soils

The mechanics of carbon loss from cultivating peaty soil are fairly well understood (Zerva et al., 2005; Swain et al., 2010; Simola et al., 2012; Chapman et al., 2013; Vanguelova et al., 2019; Lawrence et al., 2021), and it is now widely recognised that soil carbon loss increases with increasing intensity of the cultivation practice, drainage and soil disturbance (Scottish Forestry guidance, 2021). But some 800,000 ha of Scotland's existing forests are planted on peats (Vanguelova et al., 2016), so sites for replanting are often peatier than would today be permitted to be afforested. When these sites are re-drained and re-cultivated for the next rotation, the loss of carbon is even greater (Vanguelova et al., 2018), though much less well understood (Vanhala et al., 2013).

2.4. The net effect

The net effect of plantations on peaty soils is that many forests are emitting more greenhouse gases than they sequester; they are not carbon-beneficial (Matthews et al., 2020). Parts of Kielder Forest, just across the Scottish border, (Vanguelova et al., 2019) have lost large quantities of soil carbon from the peat, with approximately 30 % of original peat layer carbon stocks lost over one rotation (35 years). Soil carbon losses of around 3 tonnes carbon per hectare per year (11 tonnes CO₂ equivalent) have been reported (Zerva et al., 2005; Vanguelova et al., 2019; Jovani-Sancho et al., 2021); which is more than a fast-growing plantation can absorb. Worse still, the plantations are substituting safely stored carbon (peat) for a more reactive, unstable pool of carbon (biomass, timber products, waste). The most recent estimates for international reporting² suggest that on balance, forestry on peat is emitting between 1.15 and 5.46 tonnes of carbon dioxide equivalent per hectare per year.

Although the regulations are tighter now than they were when Kielder was planted; research shows that even where the peat is just 30 cm deep, the cultivation of peaty soils can lose more carbon than the trees can absorb in their 30-year life spans (Forest Research, 2022; and even on peats just 20 cm deep, it might take 15 years before net zero.

Furthermore, the effect of the forest ditches on carbon emissions from forestry may be greater than widely appreciated, despite the warnings of Evans et al. (2016). There seems to be a mismatch between what the forestry models predict, and what is being measured in the fluvial fluxes in the rainiest and peatiest regions. Recent research (Williamson et al. (2021) found that the UK's rivers contain more carbon than the global average, and much of this appears to be coming from forest plantations. The presence of conifer plantations can double the quantity of carbon lost from peaty soils compared with un-forested catchments (Williamson et al. (2021)). Scotland's peaty plantations are

¹ For examples, see Forest Research's acid sensitive forestry map at <https://forestry.maps.arcgis.com/apps/View/index.html?appid=0f618ca9de8640d0862ad113387b9704> Also see research by Galloway Fisheries Trust at <https://gallowayfisheriestrust.org/research-projects.php>; and open-access water chemistry data requested from SEPA, © Scottish Environment Protection Agency 2019.

² 2021 update to the Emissions Inventory for UK Peatlands as reported by Gregg et al. (2021) for Natural England, later published in Brown et al. (2022)

exporting more carbon than we realised.

3. Why recent changes to forestry guidance are insufficient

As new evidence emerges, conventional wisdom is being questioned. Twenty years ago, the convention was that Sitka spruce plantations on peaty soils grew so fast that they were net carbon-positive. But in 2017, after reports began to show that forests on peaty soils were emitting more carbon than expected, the UK government realised that emissions from peat under conifer plantations make a major contribution to UK peat GHG emissions, and would need to be reported to the IPCC as part of the UK's greenhouse gas emissions inventory (Evans et al., 2017a). It is possible that this divergence arose because of the different methods used to calculate carbon fluxes (forestry reporting relies on temporal models for the cycle of planting, growth and harvest, whereas Land Use and Land Use Change reporting relies on measured fluxes from different land uses; CEH, 2019), but the evidence showed that continued intensive afforestation and replanting of forests on peat was not contributing to UK efforts towards net-zero carbon emissions (Brown, 2020).

By 2018, it became apparent that guidelines on forest cultivation, especially ploughing, needed to change in order to reflect the climate emergency. Yet when forestry regulators began drafting guidelines, there was resistance, claiming that the research was flawed or uncertain. The draft guidance advised against the easiest methods of planting forests on peaty soils, but the regulators were pressurised to withhold publication of that guidance for more than 3 years, (Lawrence et al., 2021). In 2021, after legal challenges emerged about the supposed carbon benefits of new plantations on peaty soils, the Forestry Commission in England published the new guidance, and later that year Scottish Forestry followed suit (Scottish Forestry, 2021). Soon after, Scotland's Cabinet Secretary for the Environment warned³ that Scotland's land use should now be recognised as a net GHG source, and that much of this was a result of drained peatlands, including the use of peatlands for agriculture and forestry.⁴ The delayed publication of the guidance resulted in several years of public and private sector finance being funnelled into schemes presented as climate-friendly but which were probably carbon-emitting.

Afforestation of the Flow Country fifty years ago was soon recognised as an environmental mistake (Warren, 2000). There are parallels today, as investment funds fuel the boom in new forestry in Southern Scotland, trusting that conifers and carbon credits are a green investment. National and international initiatives such as the Taskforce on scaling Voluntary Carbon Markets are working to improve the credibility of voluntary carbon credits; but market forces have created powerful expectations, and have not warned that carbon credits might become carbon liabilities.

The Woodland Carbon Code⁵ was designed to predict the effect of forestry on carbon. The Code, internationally accredited and regularly updated, was originally focused on biomass, but includes sub-models on soil, linking back to the underlying CARBINE model (Forest Research, undated). It is difficult to work out the extent to which the current Code takes drainage ditches in peaty soils into account, (and unlikely that any models can predict just how effective forest contractors are when encouraged with incentives for forest cover, rather than peatland protection), but the mismatch between the models' predictions and the measured carbon emissions from peaty forests suggest that the estimates used by the models underestimate carbon emissions from peaty ditches, both at afforestation and restocking. This finding concurs with the IUCN's position paper on forestry on peat (IUCN, 2020).

³ https://archive2021.parliament.scot/S5_Environment/General%20Documents/ECCLR_2021.02.05_CCPu_IN_CS_UK_GHG.pdf

⁴ <https://www.gov.scot/publications/future-revisions-to-scottish-greenhouse-gas-statistics-associated-with-ipcc-wetlands-supplement/>

⁵ <https://woodlandcarboncode.org.uk/>

It is therefore disappointing that the new guidelines (Scottish Forestry, 2021), good though they are, restrict themselves to cultivation techniques, when wider research, as cited above, shows that net carbon losses are caused by the drains, ditches and restocking.

Five suggestions would help remedy the situation:

1. The assumptions and parameters underlying the current forestry carbon models should be verified using empirical evidence, and the models re-calibrated if necessary;
2. In the meantime, to safeguard soil carbon, the current exclusion of planting on peats more than 50 cm deep should be extended to shallower peaty soils (those with 10 cm or more of peat); and excavation of new ditches in peaty soils should be proscribed.
3. After harvesting timber from peaty plantations, soil and carbon conservation should be prioritised, instead of restocking for further spruce production.
4. Monitoring (and enforcement if necessary) of the regulations and guidelines on afforestation of peaty soils should be increased.
5. Investors should audit their forestry investments, to ensure their portfolio is genuinely green, that no peatland is damaged, and that any run-off, including ditch-water, is unpolluted and contains minimal organic matter.

Government regulators will need to be stronger, and our policy makers more careful about the type of land use change they are encouraging, if they are to meet net zero targets and tackle the climate emergency.

4. Summary

The forest industry promotes conifer forests as carbon positive; yet many plantations are emitting carbon. This paper has presented a series of arguments which show, incrementally, that:

- 1) Ditches and drains are the overriding reason for peatland losing its carbon (e.g. Evans et al., 2016).
- 2) Most of Scotland's forestry has been (and is still being) planted on organic, peaty soils.
- 3) The UK forest industry uses intensive ground preparation on wet, peaty soil in order to grow spruce, excavating networks of ditches and drains to flush away water from plantations.
- 4) Ditches, streams and rivers in afforested catchments are heavily loaded with carbon; the forests are losing carbon through the drains. (CEH, 2019: Figure 4; Williamson et al., 2021).
- 5) The problem is acute in south west Scotland, where afforested headwaters contain high levels of organic carbon, and lethal spikes of acidity. (e.g. data from SEPA and Galloway Fisheries Trust).

In parts of the UK, we have been planting the wrong type of forests, in the wrong place, and using the wrong techniques. If we want woodlands to lock up carbon for centuries, we need to move away from draining and disturbing peaty soils to suit plantations, and instead develop more sustainable models of forestry and soil conservation.

Declaration of Competing Interest

None.

Data availability

No data was used for the research described in the article.

Acknowledgements

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References

- Anderson, R., Peace, A.J., 2017. Ten-Year results of a comparison of methods for restoring afforested blanket bog. *For. Res. ; Mires Peat Volume 19* (2017). Article 06, 1–23. <http://www.mires-and-peat.net/>, ISSN 1819-754X. Available at https://www.researchgate.net/publication/316663638_Ten-Year_results_of_a_comparison_of_methods_for_restoring_afforested_blanket_bog.
- Averis, B., 2022. A provisional definition of temperate rainforest in Britain and Ireland. (<http://www.benandalisonaveris.co.uk/wp/wp-content/uploads/2022/12/Provisional-Rainforest-Definition-Ben-Averis-12-Dec-2022.pdf>).
- Basley, A. (2022) Indicative map showing organic soils and forests, Scotland. (pers. comm., created using open-source online JHI data).
- Blacklocke, S., 2016. Progressing understanding of episodic stream acidification in upland plantation conifer forested subcatchments in Ireland (<http://hdl.handle.net/10197/8587>).
- Brown, I., 2020. Challenges in delivering climate change policy through land use targets for afforestation and peatland restoration. *Environ. Sci. Policy* 107 (2020), 36–45.
- Brown, P., Cardenas, L., Choudrie, S., Del Vento, S., Karagianni, E., MacCarthy, J., Mullen, P., Passant, N., Richmond, B., Thistlethwaite, G., Thomson, A., Wakeling, D., Anthony, S., Blannin, L., Broomfield, M., Buys, G., Carnell, E., Cliverd, H., Dragosits, U., Gibbs, M., Gilhespy, S., Glendinning, M., Gluckman, R., Gorji, S., Henshall, P., Hobson, M., Lambert, N., Levy, P., Malcolm, H., Manning, A., Matthews, R., Milne, A., Misra, A., Misselbrook, T., Murrells, T., Nickerson, R., Pang, Y., Pearson, B., Quinn, P., Raine, B., Rault, J., Richardson, J., Sandars, D., Skirvin, D., Stewart, R., Thomas, H., Tomlinson, S., Walker, C., Watterson, J., Williams, A., Wong, J., 2022. UK Greenhouse Gas Inventory, 1990 to 2020: Annual Report for submission under the Framework Convention on Climate Change; at (https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1087003/lulucf-local-authority-mapping-report-2020.pdf).
- CEH, 2019. Mapping Carbon Emissions & Removals for the Land Use, Land-Use Change & Forestry Sector: A report of the National Atmospheric Emissions Inventory 2019, a report for the Department of BEIS; at (https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/996062/lulucf-local-authority-mapping-report-2019.pdf).
- Chapman, S.J., Bell, J.S., Campbell, C.D., Hudson, G., Lilly, A., Nolan, A.J., Robertson, A. H.J., Potts, J.M., Towers, W., 2013. Comparison of soil carbon stocks in Scottish soils between 1978 and 2009. *Eur. J. Sci.* 64, 455–465.
- Confor, 2018. Evidence for revision of the UK productive forestry growth assumptions in Committee on Climate Change reports, at (<https://www.theccc.org.uk/wp-content/uploads/2019/04/Confor-response-to-Call-for-Evidence-2018.pdf>).
- Cory, R.M., Harrold, K.H., Neilson, B.T., Kling, G.W., 2015. Controls on dissolved organic matter (DOM) degradation in a headwater stream: the influence of photochemical and hydrological conditions in determining light-limitation or substrate-limitation of photo-degradation. *Biogeosciences* 12, 6669–6685.
- Evans, C., Artz, R., Moxley, J., Smyth, M.A., Taylor, E., Archer, E., Burden, A., Williamson, J., Donnelly, D., Thomson, A., Buys, G., 2017a. Implementation of an emissions inventory for UK peatlands. *Centre for Ecology and Hydrology*, pp. 1–88.
- Evans, C.D., Renou-Wilson, F., Strack, M., 2016. The role of waterborne carbon in the greenhouse gas balance of drained and re-wetted peatlands. *Aquat. Sci.* volume 78, 573–590 <https://link.springer.com/article/10.1007/s00027-015-0447-y> <https://www.researchgate.net/publication/286544092>.
- Evans, C.D., Morrison, R., Burden, A., Williamson, J., Baird, A., et al., 2017b. Final report on project SP1210: Lowland peatland systems in England and Wales – evaluating greenhouse gas fluxes and carbon balances. *Cent. Ecol. Hydrol.*
- Forest Research (2022) *National Forest Inventory*, data at (<https://www.forestresearch.gov.uk/tools-and-resources/statistics/statistics-by-topic/woodland-statistics/>).
- Forest Research (undated). Forest carbon dynamics – The CARBINE carbon accounting model. (<https://www.forestresearch.gov.uk/research/forestry-and-climate-change-mitigation/carbon-accounting/forest-carbon-dynamics-the-carbine-carbon-accounting-model/>).
- Freeman, C., Evans, C.D., Monteith, D.T., Reynolds, B., Fenner, N., 2001. Export of organic carbon from peat soils. *Nature* 412, 785.
- Gregg, R., Elias, J.L., Alonso, I., Crosher, I.E., Muto, P., Morecroft, M.D., 2021. Carbon storage and sequestration by habitat: a review of the evidence. *Natural England Research Report NERR094*, second edition. Natural England, York.
- Hermans, R., Anderson, R., Artz, R., Cowie, N., Coyle, M., Gaffney, P., Hambley, G., Hancock, M., Hill, T., Khomic, M., Teh, Y.A., Subke, J.-A. (2019) Climate benefits of forest-to-bog restoration on deep peat – Policy briefing, for Climate Exchange, at (<https://www.climateexchange.org.uk/media/3654/climate-benefits-of-forest-to-bog-restoration-on-deep-peat.pdf>).
- IUCN (2020) *Forestry and Peatland*, at <https://www.iucn-uk-peatlandprogramme.org/about-peatlands/peatland-damage/forestry-peatlands> and IUCN Position Statement: Peatlands and trees, at https://www.iucn-uk-peatlandprogramme.org/sites/default/files/2020-04/IUCN%20UK%20PP%20Peatlands%20and%20trees%20position%20statement%202020_0.pdf.
- Jovani-Sancho, A.J., Cummins, T., Byrne, K.A., 2021. Soil carbon balance of afforested peatlands in the maritime temperate climatic zone. *Glob. Change Biol.* 27, 3681–3698. (<https://onlinelibrary.wiley.com/doi/full/10.1111/gcb.15654>).
- Laganier, J., Angers, D.A., Pare, D., 2010. Carbon accumulation in agricultural soils after afforestation: a meta analysis. *Glob. Change Biol.* 16, 439–453.
- Lawrence, A., McGhee, W., Smyth, M.A. (2021) *Forestry and Soil Carbon in Scotland: science, practice and policy*; at (<http://www.forestpolicygroup.org/wp-content/uploads/2022/04/Forestry-and-Soil-Carbon-Condensed-Report.pdf>).
- Lilly, A., Chapman, S.J., Perez-Fernandez, E., Potts, J., 2016. Changes to C stocks in Scottish soils due to Afforestation. The James Hutton Institute,, Aberdeen.
- Matthews, K.B., Wardell-Johnson, D., Miller, D., Fitton, N., Jones, E., Bathgate, S., Randle, T., Matthews, R., Smith, P., Perks, M., 2020. Not seeing the carbon for the trees? Why area-based targets for establishing new woodlands can limit or underplay their climate change mitigation benefits. *Land Use Policy* 97, 104690.
- Mayer, M., Prescott, C.E., Abaker, W.E.A., Augusto, L., Cecillon, L., et al., 2020. Influence of forest management activities on soil organic carbon stocks: a knowledge synthesis. *For. Ecol. Manag.* 446 online at (https://www.researchgate.net/publication/340510926_Tamm_Review_Influence_of_forest_management_activities_on_soil_organic_carbon_stocks_A_knowledge_synthesis).
- NatureScot (2015) *Scotland's National Peatland Plan: working for our future*, at (<https://www.nature.scot/doc/scotlands-national-peatland-plan-working-our-future>).
- Peacock, M., Granath, G., Wallin, M.B., Högbom, L., Futter, M.N., 2021. Significant emissions from forest drainage ditches—An unaccounted term in anthropogenic greenhouse gas inventories. e2021JG006478 *J. Geophys. Res. Biogeosci.* 126. <https://doi.org/10.1029/2021JG006478>.
- Pickard, A.E., Branagan, M., Billett, M., Andersen, R., Dinsmore, K.J., 2022. Effects of peatland management on aquatic carbon concentrations and fluxes. *Biogeosciences* 19, 1321–1334. <https://doi.org/10.5194/bg-19-1321-2022>, 2022.
- Ritson, J.P., Graham, N.J.D., Templeton, M.R., 2014. The impact of climate change on the treatability of dissolved organic matter (DOM) in upland water supplies: A UK perspective. *Science of the Total Environment*. Elsevier.
- Scottish Forestry (2022) (<https://forestry.gov.scot/publications/support-and-regulations/forestry-grant-scheme/forestry-grant-scheme-statistics>).
- Scottish Forestry, 2021. *Cultivation for Upland Productive Woodland Creation Sites - Applicant's Guidance*. Available at: <https://forestry.gov.scot/publications/forests-and-the-environment/protecting-and-managing-soil-in-forests/1032-cultivation-for-upland-productive-woodland-creation-sites-applicant-s-guidance>.
- Shah, N.W., Nisbet, T.R., Broadmeadow, S.R., 2021. The impacts of conifer afforestation and climate on water quality and freshwater ecology in a sensitive peaty catchment: A 25 year study in the upper River Halladale in North Scotland. *For. Ecol. Manag.* 502, 119616.
- Shrubsole, G., 2022. *The Lost Rainforests of Britain*. William Collins.
- Simola, H., Pitkanen, A., Turunen, J., 2012. Carbon loss in drained forested peatlands in Finland, estimated by resampling peatlands surveyed in the 1980s. *Eur. J. Soil Sci.* 63, 798–807.
- Sloan, T.J., Payne, R.J., Anderson, A.R., Gilbert, P., Mauquoy, D., Newton, A.J., Andersen, R., 2019. Ground surface subsidence in an afforested peatland fifty years after drainage and planting. *Mires Peat* 23, 1–12.
- Southern Uplands Partnership (2022) *Our vision for trees, forests and woodlands in Southern Scotland*, at <https://sup.org.uk/wp-content/uploads/Position-Statement-on-Forestry-in-South-Scotland-Final.pdf> using data from the *National Forest Inventory for the South Scotland Conservancy* <https://www.forestresearch.gov.uk/tools-and-resources/statistics/statistics-by-topic/woodland-statistics/> and <https://forestry.gov.scot/publications/support-and-regulations/forestry-grant-scheme/forestry-grant-scheme-statistics>.
- Swain, E.Y., Perks, M., Vanguelova, E.I., Abbot, G.D., 2010. Carbon stocks and phenolic distributions in peaty soils afforested with Sitka spruce (*Picea sitchensis*). *Org. Geochem.* 41, 1022–1025. Vanguelova et al. 2010.
- Vanguelova, E., Bonifacio, E., De Vos, B., Hoosbeek, M.R., Berger, T.W., Vesterdal, L., Armolaitis, K., Celi, L., Dinca, L., Kjonaas, O.J., Pavlenda, P., Pumpanen, J., Putseppe, U., Reidy, B., Simoncic, P., Tobin, Zhiyanski, B., 2016. Sources of errors and uncertainties in the assessment of forest soil carbon stocks at different scales – review and recommendations. *Environ. Monit. Assess.* 188 (630), 1–24.
- Vanguelova, E., Chapman, S., Perks, M., Yamulki, S., Randle, T., Ashwood, F., Morison, J., 2018. Afforestation and restocking on peaty soils – new evidence assessment; a report from Scotland's Climate Exchange (CXC) at (<https://www.climateexchange.org.uk/media/3137/afforestation-and-restocking-on-peaty-soils.pdf>).
- Vanguelova, E., Crow, P., Benham, S., Pitman, R., Forster, J., Eaton, E., Morison, J., 2019. Impact of Sitka spruce (*Picea sitchensis* (Bong.) Carr.) afforestation on the carbon stocks of peaty gley soils - a chronosequence study in the north of England. *Forestry* 92, 242–252.
- Vanguelova, E.I., Nisbet, T.R., Moffat, A.J., Broadmeadow, S., Sanders, T.G.M., Morison, J.L.L., 2013. A new evaluation of carbon stocks in British soils. *Soil Use Manag.* 29, 169–181.
- Vanhala, P., Repo, A., Liski, J., 2013. Forest bioenergy at the cost of carbon sequestration? *Curr. Opin. Environ. Sustain.* 5, 41–46.
- Warren, C., 2000. 'Birds, bogs and forestry' revisited: the significance of the flow country controversy. *Scott. Geogr. J.* 116 (4), 315–337.
- Williamson, J.L., Tye, A., Lapworth, D.J., et al., 2021. Landscape controls on riverine export of dissolved organic carbon from Great Britain. *Biogeochemistry*. <https://doi.org/10.1007/s10533-021-00762-2>.
- Zehetmayr, J.W.L., 1954. Experiments in tree planting on peat. *For. Comm. Bull.* no.22 (available online at). (<https://www.forestresearch.gov.uk/research/archive-experiments-in-tree-planting-on-peat/>).
- Zerva, A., Ball, T., Smith, K.A., Mencuccini, M., 2005. Soil dynamics in a Sitka spruce (*Picea sitchensis* (Bong.) Carr) chronosequence on a peaty gley. *For. Ecol. Manag.* 205, 227–240.

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Hello [REDACTED]

Thank you for your invitation to join the EIA scoping meeting for Warblaw. As you may know, Pegasus act on behalf of Arqiva in respect of their broadcast and digital communication network.

Regrettably I will not be able to attend the meeting. With regards comments, I would request that careful consideration is given to any new tree planting such that it does not prejudice the function of the existing broadcast network. This has previously been achieved by proposing new tree planting away from the existing Arqiva mast which we've previously corresponded about. Please let me know if you need anything further from me at this point.

[REDACTED]

Director - Planning

[REDACTED]

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Good afternoon Arran,

My apologies for the slow reply. Thank you for the invite however I won't be able to attend as I'm on annual leave that day.

While I don't think this will affect our proposed wind turbine locations (Bloch Wind Farm – [ECU00003463](#)) we are proposing an access from the A9 just east north east of Old Irvine which appears to conflict with proposals for either the Scots Pine or Sitka Spruce areas. Ideally we can work around that to amend these areas slightly. If this is possible please let me know.

Cheers,

[REDACTED]



[REDACTED]
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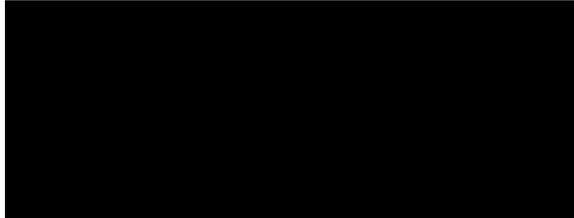
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Dear Stakeholder,

This is a final reminder for the invitation to the Warblaw EIA Scoping Meeting.

We strongly encourage attendance at the event to ensure that all key issues and comments regarding the proposals are incorporated into the EIA process.

Kind Regards,
Arran



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To: Warblaw-NWC <warblaw-nwc@scottishwoodlands.co.uk>
Cc: Arran Smith [REDACTED]
Subject: FW: Warblaw New Woodland Creation: EIA Scoping Meeting Invitation
Importance: High

Dear Stakeholder,

We are yet to receive a response from you to the below invitation to the Warblaw EIA Scoping Meeting.

We strongly encourage attendance at the event to ensure that all key issues and comments regarding the proposals are incorporated into the EIA process.

Kind Regards,
Arran

From: Arran Smith
Sent: 06 June 2025 08:11
To: Warblaw-NWC <warblaw-nwc@scottishwoodlands.co.uk>
Cc: Arran Smith [REDACTED]
Subject: Warblaw New Woodland Creation: EIA Scoping Meeting Invitation
Importance: High

Dear Stakeholder,

Warblaw Woodland Creation: Environmental Impact Assessment (EIA) Scoping Meeting Invitation

Scottish Woodlands Ltd, on behalf of our client James Jones & Sons Ltd, invite you to an EIA Scoping Meeting to discuss and the potential environmental impact of a proposed new woodland creation scheme at Warblaw, Langholm.

Date: Thursday 10th July 2025

Location: The Buccleuch Centre, Langholm, DG13 0AW

Time: 0930 to 1230

Proposed Agenda

1. Introduction, apologies, purpose and content of the meeting
2. Background and outline of proposals by the applicant
3. Raising of relevant issues and concerns by each participant
4. Correspondence received
5. Summary and close

The meeting is not a public meeting, and invitations have been sent to key stakeholders in agreement with Scottish Forestry. The meeting will be chaired by Scottish Forestry with Scottish Woodlands taking notes to aid the preparation of a Scoping Report based on the issues raised at the meeting.

An EIA is the process of identifying the environmental effects, either positive or negative, of the proposed project on the environment with the aim of avoiding, reducing or offsetting any adverse impacts. We therefore encourage you to view key documents, including surveys and reports, ahead of the meeting to help prepare points for discussion. The documents can be viewed on our website using the following link:

<https://www.scottishwoodlands.co.uk/public-consultations/warblaw-new-woodland-creation/>

Please confirm your attendance by sending the following information to warblaw-nwc@scottishwoodlands.co.uk by **5pm Friday 4th July**

- Name of Attendee
- Organisation (if applicable)
- Address

If you are unable to attend the meeting but wish to provide input or comments, then please email these to the above email address by **5pm Friday 4th July**.

Kind Regards,
Arran

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From: [REDACTED]
Sent:
To: Arran Smith
Subject: Warblaw Woodland Creation

Follow Up Flag: Follow up
Flag Status: Flagged

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Think carefully before clicking on links or attachments.

Dear Arran,

My name is Ronnie Graham and I am chair of Dumfries and Galloway Raptor Study Group.

I have circulated the above proposal to our members and our major concern is of a [REDACTED]

[REDACTED] This site was monitored and counted in Winter 2024-2025.

According to the Birds of Conservation Concern 4 (2015) With approximately 550 pairs in the UK the Hen Harrier is classified as red listed.

This species is widely regarded as the country's most persecuted raptor and roost sites away from this pressure are very valuable.

I'd be much obliged if you could tell me how Scottish Woodlands intend to proceed with this issue.

Regards,

[REDACTED]

From: [REDACTED]
Sent: 14 July 2025 07:59
To: Arran Smith
Subject: Re: FINAL REMINDER: Warblaw New Woodland Creation: EIA Scoping Meeting Invitation

Follow Up Flag: Follow up
Flag Status: Flagged

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Dear Arran

Apologises for my late response.

With regard to this proposed forestry creation GFT have the following comments to make:

1. Overall this looks like a well designed scheme which retains a balanced land use and mix of tree species.
2. The planting of hardwoods focussed towards the watercourses is good.
3. We would encourage minimal drainage of the site to help encourage a more natural hydrology.
4. it is important that the planting of hardwoods in the riparian zone is undertaken close enough to watercourses to create a dappled shade to help combat the recognised risk of watercourses becoming too hot in the future. Too often riparian trees are planted too far away from the rivers and burns to actually shade the water. It appears from the maps that some of the hardwood planting is set back from the watercourses - if riparian hardwoods are not already present then can even a low density of hardwood planting be included close to the water between the commercial crop and the water courses please. GFT can advise further on this if you wish.
5. Hardwoods should be planted in all riparian areas of the property boundary where possible. Waters need riparian tree cover to cope with future climate change impacts. Planting can be at a low density.
6. Management of natural conifer regen in riparian areas should be an ongoing management operation in both new and existing forestry areas of the property. Well managed riparian zones will have numerous environmental benefits for all species.
7. GFT oppose the drainage and commercial planting of any areas of peatland due to the environmental and water quality impacts it has.
8. If useful, GFT would be happy to provide further guidance / thoughts on the proposed planting close to the water courses once the designs are tightened up.
9. Any bridges / culverts placements need to ensure the free movement of fish to ensure salmon and trout can access any upstream spawning and nursery grounds. If culverts are being placed instream, where fish are present, then a fish rescue may be required to move fish before the works and timing of instream works should avoid periods when salmonids are spawning and juveniles are in the gravel (usually October - May). GFT can help advise on whether fish are likely to be present in any watercourses where works are planned.

Please do get in touch with me if you want to discuss any points raised in more details.

Regards
Jamie Ribbens
Chief Executive
Galloway Fisheries Trust

Sent from [Outlook for iOS](#)

From: [REDACTED]
Sent: Wednesday, July 9, 2025 8:55:38 AM
To: [REDACTED]
[REDACTED] Creation: EIA Scoping Meeting Invitation

Dear Jamie,

I am aware that we are yet to receive your comments regarding the EIA scoping. Please could you submit these by 3pm today so that they can be raised at tomorrow's meeting.

Kind Regards,
Arran



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From: Arran Smith
Sent: 01 July 2025 07:56
To: [REDACTED]
Subject: RE: FINAL REMINDER: Warblaw New Woodland Creation: EIA Scoping Meeting Invitation

Dear Jamie,

Thank you for confirming that you will not be attending the meeting on the 10th. Please submit your comments by 5pm Friday 4th July.

Kind Regards,
Arran

From: [REDACTED]
Sent: 30 June 2025 21:17
To: Arran Smith [REDACTED] >
Subject: Re: FINAL REMINDER: Warblaw New Woodland Creation: EIA Scoping Meeting Invitation

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Dear Arran
I would like to submit a response to the EIA scoping for this proposal but I cannot attend the meeting on the 10th.

Regards
Jamie



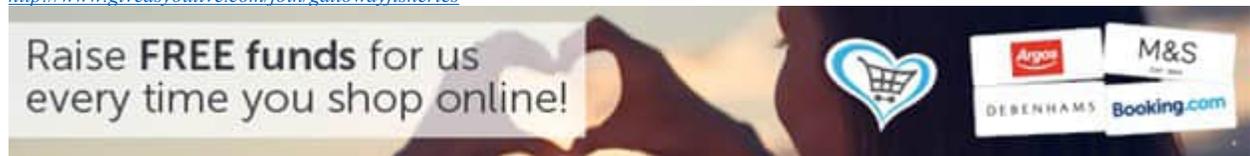
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<http://www.giveasyoulive.com/join/gallowayfisheries>



From: [REDACTED] >
Sent: Monday, June 30, 2025 15:44
To: [REDACTED] >
Subject: FW: FINAL REMINDER: Warblaw New Woodland Creation: EIA Scoping Meeting Invitation

FYI

Kind Regards

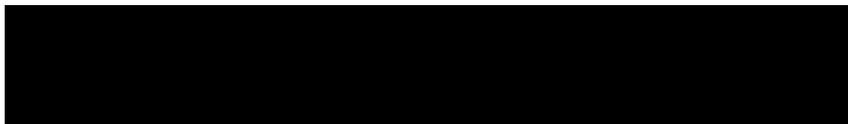


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From: Arran Smith <[REDACTED]>

Sent: Monday, June 30, 2025 3:42 PM

To: Warblaw-NWC <[REDACTED]>

Cc: Arran Smith [REDACTED] >

Subject: FINAL REMINDER: Warblaw New Woodland Creation: EIA Scoping Meeting Invitation

Importance: High

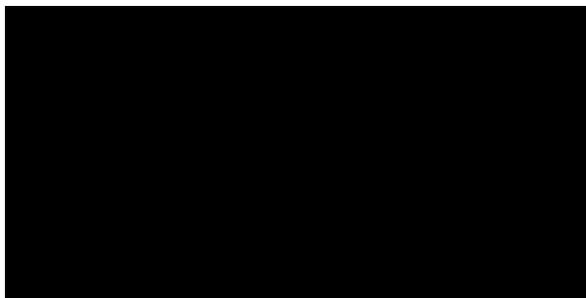
Dear Stakeholder,

This is a final reminder for the invitation to the Warblaw EIA Scoping Meeting.

We strongly encourage attendance at the event to ensure that all key issues and comments regarding the proposals are incorporated into the EIA process.

Kind Regards,

Arran



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From: Arran Smith

Sent: 23 June 2025 11:06

To: Warblaw-NW [REDACTED] >

Cc: Arran Smith <[REDACTED]>

Subject: FW: Warblaw New Woodland Creation: EIA Scoping Meeting Invitation

Importance: High

Dear Stakeholder,

We are yet to receive a response from you to the below invitation to the Warblaw EIA Scoping Meeting.

We strongly encourage attendance at the event to ensure that all key issues and comments regarding the proposals are incorporated into the EIA process.

Kind Regards,

Arran

From: Arran Smith
Sent: 06 June 2025 08:11
To: Warblaw-NW [REDACTED]
Cc: Arran Smith <[REDACTED]>
Subject: Warblaw New Woodland Creation: EIA Scoping Meeting Invitation
Importance: High

Dear Stakeholder,

Warblaw Woodland Creation: Environmental Impact Assessment (EIA) Scoping Meeting Invitation

Scottish Woodlands Ltd, on behalf of our client James Jones & Sons Ltd, invite you to an EIA Scoping Meeting to discuss and the potential environmental impact of a proposed new woodland creation scheme at Warblaw, Langholm.

Date: Thursday 10th July 2025

Location: The Buccleuch Centre, Langholm, DG13 0AW

Time: 0930 to 1230

Proposed Agenda

1. Introduction, apologies, purpose and content of the meeting
2. Background and outline of proposals by the applicant
3. Raising of relevant issues and concerns by each participant
4. Correspondence received
5. Summary and close

The meeting is not a public meeting, and invitations have been sent to key stakeholders in agreement with Scottish Forestry. The meeting will be chaired by Scottish Forestry with Scottish Woodlands taking notes to aid the preparation of a Scoping Report based on the issues raised at the meeting.

An EIA is the process of identifying the environmental effects, either positive or negative, of the proposed project on the environment with the aim of avoiding, reducing or offsetting any adverse impacts. We therefore encourage you to view key documents, including surveys and reports, ahead of the meeting to help prepare points for discussion. The documents can be viewed on our website using the following link:

<https://www.scottishwoodlands.co.uk/public-consultations/warblaw-new-woodland-creation/>

Please confirm your attendance by sending the following information to warblaw-nwc@scottishwoodlands.co.uk by **5pm Friday 4th July**

- Name of Attendee
- Organisation (if applicable)
- Address

If you are unable to attend the meeting but wish to provide input or comments, then please email these to the above email address by **5pm Friday 4th July**.

Kind Regards,

Arran

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